Five-Year Review Report

First Five-Year Review Report
for
Agriculture Street Landfill Superfund Site
New Orleans, Orleans Parish, Louisiana

June 2003

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Contract Number 68-W6-0036
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FIVE-YEAR REVIEW
Agriculture Street Landfill Superfund Site
EPA ID# LAD981056997
New Orleans, Orleans Parish, Louisiana

This memorandum documents the United States Environmental Protection Agency's (EPA's) performance, determinations, and approval of the Agriculture Street Landfill Superfund Site First Five-Year Review, provided in the attached First Five-Year Review Report prepared by CH2M HILL, Inc., on behalf of EPA.

Summary of Five-Year Review Findings

The first five-year review for this site indicates that the removal actions set forth in decision documents for this site have been implemented as planned. Removal actions have been completed for OU1 (Undeveloped Property), OU2 (Residential Properties) and OU3 (Shirley Jefferson Community Center). No action was found to be necessary for OU4 (Moton Elementary School) and OU5 (Ground Water). EPA and LDEQ concur that no further action is required for the site. Two issues are identified for this site, as described in the following paragraphs.

Cover maintenance instructions for property owners. Instructions for cover maintenance were provided to each OU property owner and also made available at the repositories. These instructions provided guidance for routine surface maintenance activities such as filling holes above the geotextile barrier, cultivation of vegetative cover, and excavation of soils below the geotextile barrier, and replacement of excavated soils as backfill beneath the geotextile barrier. A Supplemental Information letter and fact sheets were also issued that answered concerns associated with trees impacting the final cover, the potential impact a natural disaster may have on the property, and the importance of the Certificate of Completion should the property be sold. Procedures for handling/disposal of soils excavated below the barrier, in the event that this material can not be returned to the excavated area beneath the barrier, such as during tree planting, were not explained fully in these instructions. Also, there does not appear to be a procedure in place for forwarding the instructions to new property owners.

Cover maintenance on OU1. During the site inspection, an area of OU1 was observed being used for apparent storage of cars, trucks, trailers and Mardi Gras parade floats. Ruts, possibly made by vehicular traffic, were noted in the surface soils of OU1 in the vehicle storage area. The deepest ruts appear to be approximately six inches deep, but do not appear to intersect the geotextile barrier. In the rest of the property, OU1 is covered with moderate to heavy vegetation. There does not currently appear to be a risk of exposure to the impacted soils below the geotextile barrier in the vehicle storage area as long as the 12-inch thick cover and geotextile barrier remain intact and undamaged.

Actions Needed

Recommended actions include making improvements to the maintenance of the vegetative cover on OU1. Measures should be adopted to remind the property owner of OU1, where rutting was observed, to maintain the cover. Instructions and specifications for maintenance should be included in the reminder. Also, additional guidance should be provided to OU2 property owners for handling/disposal of soils excavated below the barrier that can not be returned to the excavated area beneath the barrier to limit potential exposure to these materials. Also, procedures should be established for forwarding maintenance instructions to new property owners.

Determinations

I have determined that the actions performed for the Agriculture Street Landfill Superfund Site are protective of human health and the environment, and will remain so provided the action items identified in the Five-Year Review Report are addressed as described above.

Myron O. Knudson, P.E.
Director, Superfund Division
U.S. Environmental Protection Agency, Region 6

Date

Myron O. Knudson

6/30/03

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FIVE-YEAR REVIEW
Agriculture Street Landfill Superfund Site
EPA ID# LAD981056997

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Table of Contents

Section **Page**

List of Acronyms . . . iii
Executive Summary . . . v
Five-Year Review Summary Form . . . ix

1. Introduction . . . 1
2. Site Chronology . . . 2
3. Background . . . 3
3.1 Physical Characteristics . . . 3
3.2 Land and Resource Use . . . 5
3.3 History of Contamination . . . 7
3.4 Initial Response . . . 8
3.5 Basis for Taking Action . . . 10
3.6 Progress Since Initiation of Response Actions . . . 10
4. Remedial Actions . . . 10
4.1 Remedy Objectives . . . 11
4.2 Remedy Selection . . . 11
4.3 Remedy Implementation . . . 11
4.4 Operation and Maintenance . . . 11
5. Five-Year Review Process . . . 12
5.1 Administrative Components . . . 12
5.2 Community Involvement . . . 13
5.3 Document Review . . . 13
5.4 Data Review . . . 13
5.5 Interviews . . . 14
5.6 Site Inspection . . . 14
6. Technical Assessment . . . 16
6.1 Question A: Is the Remedy Functioning as Intended by the Decision Documents? . . . 16
6.2 Question B: Are the Exposure Assumptions, Toxicity Data, Cleanup Levels, and Remedial Action Objectives (RAOs) Used at the Time of the Remedy Selection Still Valid? . . . 17
6.3 Question C: Has any Other Information Come to Light That Could Call into Question the Protectiveness of the Remedy? . . . 19
6.4 Summary of Technical Assessment . . . 20
7. Issues . . . 20
8. Recommendations and Follow-up Actions . . . 21
9. Protectiveness Statement . . . 21
10. Next Review . . . 22

Table of Contents

List of Figures

Figure 1 Site Map

List of Tables

Table 1 Chronology of Site Events

Attachments

Attachment 1 Documents Reviewed
Attachment 2 Interview Record Forms
Attachment 3 Site Inspection Checklist
Attachment 4 Site Inspection Photographs
Attachment 5 Notices to the Public Regarding the Five-Year Review
Attachment 6 Closeout Letter for OU1 Property Owners

List of Acronyms

ARARs	Applicable or Relevant and Appropriate Requirements
ATSDR	Agency for Toxic Substances and Disease Registry
bgs	below ground surface
CAA	Clean Air Act
CAP	Corrective Action Plan
CCASL	Concerned Citizens of Agriculture Street Landfill, Inc.
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
cm	centimeter
COPC	Contaminants Of Potential Concern
cPAH	carcinogenic Polynuclear Aromatic Hydrocarbons
CWA	Clean Water Act
E&E	Ecology and Environment, Inc.
EE/CA	Engineering Evaluation/Cost Analysis
EPA	United States Environmental Protection Agency
ERA	Ecological Risk Assessment
ESI	Expanded Site Inspection
FDA	United States Food and Drug Administration
FR	Federal Register
gpd	gallons per day
LAC	Louisiana Administrative Code
LDEQ	Louisiana Department of Environmental Quality
LOPH	Louisiana Office of Public Health
MCL	Maximum Contaminant Level
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
msl	mean sea level
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NOIPD	Notice of Intent for Partial Deletion
NPL	National Priorities List
OSHA	Occupational Safety and Health Administration
OU	Operable Unit
ppb	parts per billion
ppm	parts per million
PAH	Polynuclear Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyl
PRP	Potentially Responsible Party
RAP	Response Action Plan
RBSC	Risk Based Soil Concentrations

RECAP	Risk Evaluation/Corrective Action Program
RME	Reasonable Maximum Exposure
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
RRII	Remedial/Removal Integrated Investigation
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SVOC	Semi-Volatile Organic Compound
TAG	Technical Assistance Grant
TAL	Target Analyte List
TBCs	To Be Considereds
TCL	Target Compound List
UAO	Unilateral Administrative Order
USACE	United States Army Corps of Engineers
VOC	Volatile Organic Compound

Executive Summary

The first five-year review of the Agriculture Street Landfill Superfund Site located in Orleans Parish, New Orleans, Louisiana, was completed in June 2003. This site is on the National Priorities List (NPL) and is a removal-only site, where, under a protective cover, the removal action left hazardous substances, pollutants, or contaminants onsite above levels that would allow for unlimited use and unrestricted exposure. A commitment to the community to perform at least one five-year review for this site, to be conducted as a matter of EPA policy, was noted in a Record of Decision (ROD) signed in April 2002. The results of this five-year review indicate that the removal actions completed at the site are protective of human health and the environment. The removal and followup actions performed appear to be functioning as designed, and the site has been maintained sufficiently to protect the cover over the remaining waste. No deficiencies were noted that currently impact the protectiveness of the removal actions, although a few issues were identified that require further action to ensure the continued protectiveness of the removal actions.

The Agriculture Street Landfill Superfund Site consists of approximately 95 acres in the eastern area of New Orleans. The site was used as a municipal landfill for the City of New Orleans from about 1909 until the landfill was closed in the late 1950s. The landfill was reopened in 1965 for approximately one year as a burning and disposal area for debris created by Hurricane Betsy. From the 1970s through the late 1980s, approximately 47 acres of the site were developed for private and public uses; these areas currently support single-family homes, multiple-family dwellings, retail businesses, an elementary school, a community center, a recreation center and an electrical substation. The remainder of the site, approximately 48 acres, remained undeveloped and heavily vegetated (**E&E, 1995)**.

The U.S. Environmental Protection Agency (EPA) originally organized the work for this site into five Operable Units (OUs). These five OUs were OU1 (Undeveloped Property), OU2 (Residential Properties), OU3 (Shirley Jefferson Community Center), OU4 (Moton Elementary School), and OU5 (Ground Water).

Prior to 1994, access to OU1 was unrestricted, allowing unauthorized waste disposal and exposure to contaminants of potential concern found in the surface and subsurface soils. In a time-critical removal action initiated in March 1994, EPA installed an eight-foot-high chain-link fence around the entire undeveloped portion of the former landfill. Concurrently, EPA performed a Remedial Removal Integrated Investigation (RRII) of the entire site. Based on information presented in the RRII report, EPA conducted a second time-critical removal action at the site in February 1995. This removal action consisted of removing playground equipment and covering contaminated soil at OU3 with heavy grass sod. In March 1996, EPA completed a third time-critical removal action to repair the fence surrounding OU1 which had been damaged by trespassers. As part of the RRII, EPA conducted a Risk Assessment. EPA also conducted an Engineering Evaluation and Cost Analysis (EE/CA) to evaluate alternative removal actions for the site.

In September 1997, EPA issued an Action Memorandum authorizing a Non-Time Critical Removal Action for OU1, OU2, and OU3. The removal action on OU1, described more completely in the 1997 Action Memorandum, consisted of clearing the 48-acre area, grading it to direct storm water runoff away from the residential area, laying a permeable geotextile mat followed with orange fencing (to serve as a highly visible marker), covering the mat/marker with twelve inches of clean fill, and re-establishing a vegetative layer on the clean fill. The removal action on OU2 and OU3 consisted generally of property preparation, driveway and sidewalk removal (as needed), excavating 24 inches of soil, placing a permeable geotextile mat/marker on the subgrade, backfilling the excavated area with clean fill, covering the clean fill with grass sod, landscaping and yard restoration, driveway and sidewalk replacement, and final detailing. At its conclusion, EPA had implemented the removal action on 99% of the site (nine private homeowners elected not to participate in the removal action). Owners of properties that were not part of the response action received a letter and fact sheet from EPA stating that maintaining the surface vegetation will minimize the potential exposure to contaminants in the subsurface soils and will prevent soil erosion. The letter also informed the residents that the contaminants of concern do not readily dissolve in water, but adhere to soil particles. Thus, in the event of a flood, the contaminants in the subsurface soil are expected to remain in place and not pose an additional risk of exposure to the residents.

EPA coordinated with the utility companies serving the communities within the site's boundary. The EPA developed Technical Abstract papers providing instructions for utility repair excavations which will ensure the continued integrity of the permeable barrier on those properties where it was installed. Instructions for excavation both above and below the geotextile barrier were included in the papers. Copies of the Technical Abstracts were provided to all of the utility companies and also made available at the repositories. The EPA also conducted a field demonstration of excavation and backfill procedures for utility companies at the Site on December 1, 1999.

A ROD was signed by EPA in September 1997 for OU4 (Moton Elementary School) and OU5 (ground water). Information obtained during the course of site investigations indicated that a layer of clean fill had been placed over the OU4 property in 1985 during construction of the school. Field sampling conducted during the RRII detected little or no contamination in OU4 surface soil. The human health risk assessment concluded that no risk attributable to site-related contaminants subsequently remained at the school property. Regarding the ground water (OU5), residents in the site area were confirmed to be served by the municipal drinking water supply of the City of New Orleans, and information obtained from the Louisiana Department of Environmental Quality (LDEQ) during site investigation activities confirmed that ground water beneath the site is not used for any beneficial purpose and should not be considered a potential source of drinking water. In addition, site ground water presents no other pathway of exposure (to surface water, for example). Based on this information, EPA selected no action as the remedy for OU4 and OU5 (**EPA, 1997a**). The ROD for OU4 and OU5 recommended that both OUs be deleted from the NPL. After public notice and an opportunity for public comment, OU4 and OU5 were deleted from the NPL, on June 15, 2000 (**EPA, 2002a**).

A ROD was signed by EPA for OU1, OU2, and OU3 in April 2002. The response actions described above were found to have addressed the unacceptable risks posed by site contaminants, and EPA determined that no further action was necessary to protect public health and welfare or the environment for OU1, OU2 and OU3 (**EPA, 2002a**).

During this five-year review, two issues were identified that do not currently affect the protectiveness of the remedy. The first issue regards OU1, part of which is currently used to store cars, trucks, trailers and Mardi Gras floats (observed during the five-year review site inspection). Ruts, likely made by vehicular traffic, were noted in the surface soil of OU1 in the apparent storage area. The deepest ruts appeared to be about six inches deep, and did not appear to intersect the geotextile barrier. The remainder of OU1 is covered with moderate to heavy vegetation.

The second issue regards the maintenance procedures for the cover. Instructions for maintenance of the cover were provided for each OU property owner when the site work was completed. The instructions provided guidance for routine surface maintenance activities such as filling holes above the geotextile barrier, cultivation of vegetative cover, and excavation of soils below the geotextile barrier when the soils can be placed back into the excavation below the barrier as backfill. A Supplemental Information letter and fact sheets were also issued that answered concerns associated with trees impacting the final cover, the potential impact a natural disaster may have on the property, and the importance of the Certificate of Completion should the property be sold. Procedures for handling/disposal of soil excavated below the barrier in the event that this material can not be returned to the excavated area beneath the barrier, such as during tree planting, were not explained fully in the O&M instructions. In addition, procedures do not appear to be in place for communicating the maintenance procedures to new property owners.

While these issues do not currently affect protectiveness, certain actions are recommended to ensure continued protectiveness. First, measures should be adopted to remind the property owner of OU1, where rutting was observed, to maintain the cover. Instructions and specifications for maintenance should be included in the reminder. Also, additional guidance should be provided to OU1-3 property owners for handling/disposal of soils excavated below the barrier that can not be returned to the excavated area beneath the barrier to limit potential exposure to these materials. Finally, procedures should be established for forwarding maintenance instructions to new property owners.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name (from WasteLAN): Agriculture Street Landfill		
EPA ID (from WasteLAN): LAD981056997		
Region: EPA Region 6	**State:** Louisiana	**City/County:** New Orleans/Orleans Parish

SITE STATUS
NPL Status: ■ Final ▫ Deleted ▫ Other (specify):
Remediation status (choose all that apply): ▫ Under Construction ▫ Operating ■ Complete
Multiple OUs? ■ Yes ▫ No **Construction completion date:** 2002
Has site been put into reuse? ■ Yes (Partially) ▫ No

REVIEW STATUS
Reviewing agency: ■ EPA ▫ State ▫ Tribe ▫ Other Federal Agency:
Author: EPA Region 6, with support from RAC6 contractor CH2M HILL, Inc.
Review period: September 1997 through June 2003
Date(s) of site inspection: October 17, 2002
Type of review: ▫ Statutory ■ Policy ▫ Post-SARA ▫ Pre-SARA ■ NPL-Removal only ▫ Non-NPL Remedial Action Site ▫ NPL State/Tribe-lead ▫ Regional Discretion
Review number: ■ 1 (first) ▫ 2 (second) ▫ 3 (third) ▫ Other (specify):
Triggering action: ▫ Actual RA Onsite Construction ▫ Actual RA Start ▫ Construction Completion ▫ Recommendation of Previous Five-Year Review Report ■ Other: Commitment to Community
Triggering action date (from WasteLAN): Start date for this policy review was selected as April 4, 2002 (date of No Further Action ROD for OU1-3)
Due date (five years after triggering action date): April 2007

Five-Year Review Summary Form

Issues: During this five-year review, two issues were identified that do not currently affect the protectiveness of the remedy. The first issue regards OU1, part of which is currently used to store cars, trucks, trailers and Mardi Gras floats (observed during the five-year review site inspection). Ruts, likely made by vehicular traffic, were noted in the surface soil of OU1 in the apparent storage area. The deepest ruts appeared to be about six inches deep, and did not appear to intersect the geotextile barrier. The remainder of OU1 is covered with moderate to heavy vegetation.

The second issue regards the maintenance procedures for the cover. Instructions for maintenance of the cover were provided for each OU property owner when the site work was completed. The instructions provided guidance for routine surface maintenance activities such as filling holes above the geotextile barrier, cultivation of vegetative cover, and excavation of soils below the geotextile barrier when the soils can be placed back into the excavation below the barrier as backfill. A Supplemental Information letter and fact sheets were also issued that answered concerns associated with trees impacting the final cover, the potential impact a natural disaster may have on the property, and the importance of the Certificate of Completion should the property be sold. Procedures for handling/disposal of soil excavated below the barrier in the event that this material can not be returned to the excavated area beneath the barrier, such as during tree planting, were not explained fully in the O&M instructions. In addition, procedures do not appear to be in place for communicating the maintenance procedures to new property owners.

Recommendations and Follow-up Actions: First, measures should be adopted to remind the property owner of OU1, where rutting was observed, to maintain the cover. Instructions and specifications for maintenance should be included in the reminder. Also, additional guidance should be provided to OU property owners for handling/disposal of soils excavated below the barrier that can not be returned to the excavated area beneath the barrier to limit potential exposure to these materials. Finally, procedures should be established for forwarding maintenance instructions to new property owners.

Protectiveness Statement(s): The response actions performed at the site are considered protective of human health and the environment because the waste has been removed or contained and is protected from erosion, and a barrier has been constructed to prevent exposure to the remaining impacted soil. Because the completed response actions for the Agriculture Street Landfill site are considered protective with the existence of surface vegetation and a soil barrier covering subsurface contaminants that are expected to remain in place over time , the remedy for the site, including all five OUs, is protective of human health and the environment , and will continue to be protective if the action items identified in this five-year review are addressed.

Other Comments: None.

First Five-Year Review Report
Agriculture Street Landfill Superfund Site

The United States Environmental Protection Agency (EPA) Region 6 has conducted a five-year review of the removal actions implemented at the Agriculture Street Landfill Superfund Site during the period of September 1997 through October 2002. The site is located within the city limits of New Orleans, Orleans Parish, Louisiana, approximately three miles south of Lake Pontchartrain and 3 miles north-northeast of the city's central business district. The purpose of a five-year review is to determine whether the response action taken at a site is protective of human health and the environment, and to document the methods, findings, and conclusions of the five-year review in a Five-Year Review Report. EPA RAC6 contractor CH2M HILL provided support for conducting this review and the preparation of this report.

EPA guidance on conducting five-year reviews is provided by OSWER Directive 9355.7-03B-P, *Comprehensive Five-Year Review Guidance* (**EPA, 2001**) (replaces and supercedes all previous guidance on conducting five-year reviews). EPA and contractor personnel followed the guidance provided in this OSWER directive in conducting the five-year review performed for the Agriculture Street Landfill Site.

1.0 Introduction

Five-year reviews are conducted either to meet the statutory mandate under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Section121, or as a matter of EPA policy. The statutory requirement to conduct a five-year review was added to CERCLA as part of the Superfund Amendments and Reauthorization Act of 1986 (SARA). The EPA further addressed this requirement in the National Contingency Plan (NCP). CERCLA §121(c), as amended by SARA, states:

> If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented.

The NCP states:

> If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action [40 CFR §300.430(f)(4)(ii)].

The statutory requirement to conduct a five-year review applies to CERCLA Section 121 remedial actions selected after the effective date of SARA (October 17, 1986). For sites where a statutory review is not specifically required, reviews may be conducted as a matter of policy for any of the following types of actions:

1. A pre-or post-SARA remedial action that will not leave hazardous substances, pollutants, or contaminants above levels that allow for unlimited use or unrestricted exposure, but will take longer than five years to complete.

2. A pre-SARA remedial action that leaves hazardous substances, pollutants, or contaminants, above levels that allow for unlimited use or unrestricted exposure.

3. A removal action for a site on the NPL that will leave hazardous substances, pollutants, or contaminants above levels that allow for unlimited use or unrestricted exposure, and where no remedial action has or will take place.

This last type of action described above (item 3) corresponds to the remedy specified for the Agriculture Street Landfill Site; therefore this five-year review is being conducted as a matter of policy. The ROD for the site signed in April 2002 specifies that at least one five-year review be conducted for this site.

2.0 Site Chronology

A chronology of significant site events and dates is included in **Table 1**, provided at the end of the report text. Sources of this information are listed in **Attachment 1, List of Documents Reviewed**.

3.0 Background

This section describes the physical setting of the site, including a description of the land use, resource use, and environmental setting. Finally, this section briefly describes the history of contamination associated with the site, the initial response actions taken at the site, and the basis for each action.

3.1 Physical Characteristics

The Agriculture Street Landfill Superfund Site is located in the eastern section of the city of New Orleans, Orleans Parish, Louisiana. The approximate geographic coordinates for the center of the former landfill are 29º 59' 20" north latitude and 90º 02' 31" west longitude. The site consists of approximately 95 acres. As shown on **Figure 1**, the site is bounded on the north by Higgins Boulevard, on the northwest by Almonaster Blvd., and on the south and west by the Southern Railroad rights-of-way. The eastern site boundary extends from the cul-de-sac at the southern end of Clouet Street (at the southeast corner of the site, near the railroad tracks) north to Higgins Boulevard between Press and Montegut Streets **(EPA, 2002a**).

Currently, the site is partially redeveloped (see **Figure 1**). From the 1970s through the late 1980s, approximately 47 acres of the site were developed for private and public uses and currently support single-family homes, multiple-family dwellings, retail businesses, an elementary school, a community center, a recreation center and an electrical substation. The remainder of the site, approximately 48 acres, remain undeveloped and heavily vegetated (**E&E, 1995)**.

3.1.1 Geology

The Agriculture Street Landfill Site lies within the Pontchartrain Basin in the Mississippi River Deltaic Plain. The shallow subsurface geology (less than or equal to 100 feet below ground surface [bgs]) in the site area is a mixture of fine-grained materials, including peat, which is typical of a marsh/swamp depositional environment. Surficial soils usually are clayey silts or sandy silts. Below the surficial units a gray clay or organic clay containing roots and other plant matter is encountered. A discontinuous peat layer may be encountered within this clay. The peat layer has been reported to be 5 to 10 feet thick in some areas of the site. A sequence of silty clays and sandy clays with interspersed silt and sand lenses is encountered beneath the clay/peat unit. A fine-grained sand has been encountered below a depth of 50

feet. Based on available data, this sand unit is more than 50 feet thick and is assumed to be part of the Pine Island Beach Trend (**E&E, 1995**).

Near-shore gulf deposits and late Pleistocene-age Prairie Formation sediments underlie the Pine Island Trend and overlie the sedimentary sequence that comprises the New Orleans aquifer system. This aquifer system reportedly extends to a depth of approximately 850 feet bgs in the vicinity of the site. The late Pleistocene-age Prairie Formation consists of firm to stiff sandy and silty clays (**E&E, 1995**).

3.1.2 Hydrogeology

Below the site is found a shallow hydrogeologic unit that includes all water-bearing units above the Prairie Formation, and a deep hydrogeologic unit that includes the four aquifers that comprise the New Orleans aquifer system.

Shallow water-producing deposits (less than a depth of approximately 150 feet bgs) fall into two categories at the site: (1) small isolated near-surface sands that represent buried beaches and other locally deposited sands; and (2) point bar and tributary channel sands deposited by the Mississippi River and its tributaries. Locally, the small isolated near surface sands are not known to contain potable water nor are they extensive enough to supply large quantities of even poor quality water (**E&E, 1995**).

The deeper hydrogeology of the New Orleans area is characterized by a complex series of alternating beds of sand and clay that comprise the New Orleans aquifer system. The New Orleans aquifer system is normally defined as a series of four sand units from land surface to the base of the “1,200 Foot” aquifer (**E&E, 1995**). The four major aquifers in this succession, in descending order, are the Gramercy, Norco, Gonzales-New Orleans, and “1,200-Foot” aquifers. The Gonzales-New Orleans aquifer is the only aquifer containing significant quantities of fresh water beneath New Orleans. Because of its areal distribution, thickness, and the availability of fresh water content, it is the only practical choice for consideration as a public supply source (**E&E, 1995**).

The aquifers of the New Orleans aquifer system are recharged directly by precipitation, by percolation downward through the overlying surficial sediments, and by recharge from the Mississippi River.

Recharge from precipitation is sufficient to maintain relatively constant long-term water levels in the aquifers at the outcrop areas. Observations of water levels in shallow wells near the outcrop areas indicate that long-term water levels are not affected by ground water pumping (**E&E, 1995**).

3.2 Land and Resource Use

The historic use of the site was as a municipal landfill for the City of New Orleans. Use of the site as a landfill began in approximately 1909 and continued until the landfill was closed in the late 1950s. The landfill was reopened in 1965 for approximately one year for a burning and disposal area for debris created by Hurricane Betsy. Current land uses and resource uses (including surface water and ground water) are described in the following paragraphs.

3.2.1 Land Use

The approximately 95-acre Agriculture Street Landfill Site includes 47 acres that were developed from the 1970s through the late 1980s and currently support single-family homes, multiple-family dwellings, retail businesses, an elementary school, a community center, a recreation center and an electrical substation. The remaining 48 acres of the former landfill are undeveloped and portions are heavily vegetated. A portion of this area is used for vehicle storage. Most of these vehicles appear to be in a state of disrepair.

Historically developed areas near and within the Agriculture Street Landfill Site have been and remain predominantly residential, but some commercial, manufacturing and retail/service businesses are located in the surrounding area. The Moton School yard and the Press Park Community center are used year round for recreational purposes. An extensive railroad network is located west and south of the site, and Interstate 10 and 610 merge approximately 0.5 mile west of the site.

The estimated population residing on the site is 1,137 persons with an average household occupancy of 3.05 persons (**E&E, 1996**). Of the 374 households present on the Agriculture Street Landfill Site,170 units are owned and operated by Housing Authority of New Orleans, 128 units are part of the Gordon Plaza Apartment complex, and 67 units are single family dwellings (**E&E, 1996**).

3.2.2 Surface Water Use

During the removal action conducted at OU1, OU1 was graded to direct storm water runoff away from the adjacent residential area. Storm water runoff at the site is directed to the Peoples Avenue Canal, to the west of the site, and the Florida Avenue Canal, to the south, by way of a network of storm drains.

The principal surface water bodies in the general site vicinity are Lake Pontchartrain, the Mississippi River and surface water canals. The main surface water features in the immediate site vicinity are the Peoples Avenue Canal and the Florida Avenue Canal. During periods of low flow, water from the Florida Avenue Canal is pumped into the Mississippi River. During periods of high flow, water is pumped into the Industrial Canal (also known as Inner Harbor Navigation Canal). The Industrial Canal flows north and eventually discharges into Lake Pontchartrain (**E&E, 1995**).

Lake Pontchartrain is used for recreational activities and fishing on a limited basis. In addition, several municipalities in the area reportedly use Lake Pontchartrain for treated sewage disposal. The lake is not used as a drinking water source. The Mississippi River has been the sole source for municipal drinking water and the primary source for other water requirements in the greater New Orleans area since approximately 1907. The Mississippi River and the Inner Harbor Navigation Canal are used extensively for commerce (**E&E, 1995**).

3.2.3 Ground Water Use

Ground water for commercial use is drawn primarily from the Gonzales-New Orleans aquifer. In 1986, the major pumping stations were located in proximity to the University of New Orleans, the Industrial Canal area north of U.S. Highway 90, the Michaud area and downtown New Orleans. Although used for commercial purposes, 28 of the Gonzales-New Orleans aquifer wells are designated as emergency drinking water supply wells. Based on information provided in the RRII report prepared by E&E, “of these 28 wells, one well appears to be located within one mile of the site; five appear to be located within two miles of the site; four appear to be located within three miles of the site; and three appear to be located with four miles of the site.” (**E&E, 1995**). As of 1986, pumpage had declined to approximately 30 million gpd from a high of approximately 43 million gpd in 1969. No usage of shallow ground water in the site area has been reported (**E&E, 1995**).

3.3 History of Contamination

The Agriculture Street Landfill Site was first authorized for use as a dump in 1909, when the City of New Orleans was engaged in an effort to phase out the dumping of municipal wastes and trash into various canals in the vicinity and into the Mississippi River. As of 1913, disinfectants were applied to the garbage at the dump and starting in 1914, oil was used to burn all refuse received at the dump. Refuse was reportedly composed of household waste collected through city collection systems, and commercial waste brought to this and other dumps by producers and private transporters (**E&E, 1996**).

A 1921 plan was approved by the city of New Orleans that established the Agriculture Street Landfill Site as the receiving point for the city's refuse. In 1922, the 400 tons of refuse produced each day by the residents of New Orleans were primarily disposed of at this landfill. Throughout the 1920s and 1930s the Agriculture Street Landfill Site continued to be used as the primary waste disposal area for New Orleans.

In 1948, area residents began to complain about the smell and smoke from occasional dump fires. In response to uncontrolled fires and trespassers at the dump, the city transformed a portion of the dump into a sanitary landfill. Reportedly, during the 1940s and 1950s the Agriculture Street Landfill Site area was routinely sprayed with dichloro-diphenyl-trichloroethane (4,4'-DDT), a pesticide (**E&E, 1996**).

On October 1948, the city began excavation on the northern part of the site to create the sanitary landfill. Trenches were excavated, cleared with drag lines, and prepared to receive wastes, which were to be covered with earth. Three cells were excavated to receive refuse. The landfill continued to receive increasing quantities of waste until the city constructed its Florida Avenue and Seventh Street incinerators in 1957.

Apparently some open burning continued at the landfill, and the public effort to close the facility intensified. According to the Mayor's Annual Report for 1950 a building was constructed as part of the city's recycling effort. Salvageable materials were picked from the refuse; unsalvageable material was landfilled.

In 1965 and 1966, the Agriculture Street Landfill Site was used on an emergency basis to accept debris and spoiled foodstuffs resulting from Hurricane Betsy of September 1965. Records indicate that approximately 300 truck loads of wastes per day were disposed of in the Agriculture Street Landfill Site for a six month period. Open fires were used to burn much of the debris. The Landfill was officially closed in 1966, however, an aerial photograph from 1967 shows some type of operation continuing at the Agriculture Street Landfill Site (**E&E, 1996**).

In the 1970s, after the closure of the Agriculture Street Landfill, development of portions of the former landfill was initiated by city agencies. Fill was brought into the area for the subsequent construction of multiple-family Housing Authority of New Orleans public housing. In 1975, the Orleans Parish School Board purchased a vacant lot on the Agriculture Street Landfill Site for the purpose of constructing a school. After numerous engineering studies, the school board commissioned the construction of Moton School in 1985.

3.4 Initial Response

Prior to 1994, access to OU1, the undeveloped portion of the former landfill, was unrestricted, allowing unauthorized waste disposal and potential exposure to contaminants of potential concern (COPCs) such as lead, arsenic, and carcinogenic polynuclear aromatic hydrocarbons (cPAHs) found in the surface and subsurface soil. In a time-critical removal action implemented concurrently with a Remedial Removal Integrated Investigation (RRII), EPA installed an eight-foot high, chain link fence topped with barbed wire around the entire undeveloped portion of the former landfill (OU1). Fencing activities were conducted from March through May 1994. Several gates were installed to facilitate vehicular access by utility companies to electrical lines that traverse the site (**E&E, 1996**).

The RRII fieldwork was conducted from April 4 through June 20,1994. Samples of surface and subsurface soil, sediment, surface water, ground water, indoor and outdoor air, dust, tap water, garden produce, and paint chips collected during the field investigation were submitted to laboratories for analysis (**EPA, 2002a**).

Based on information presented in the RRII report, EPA conducted a second time-critical removal action at the site in February 1995. This removal action consisted of removing playground equipment and covering contaminated soil at OU3 with heavy grass sod. In March 1996, EPA completed a third time-critical removal action to repair the fence surrounding OU1 which had been damaged by trespassers. Also, EPA conducted an Engineering Evaluation and Cost Analysis (EE/CA) to evaluate alternative removal actions for the site.

In September 1997, EPA issued an Action Memorandum authorizing a Non-Time Critical Removal Action for OU1, OU2, and OU3. The removal action on OU1, described more completely in the 1997 Action Memorandum, consisted of clearing the 48-acre area, grading it to direct storm water runoff away from the residential area, laying a permeable geotextile mat followed with orange fencing (to serve as a highly visible marker), covering the mat/marker with twelve inches of clean fill, and re-establishing a vegetative layer on the clean fill. The removal action on OU2 and OU3 consisted generally of excavating 24 inches of soil, placing a permeable geotextile mat/marker on the subgrade, backfilling the excavated area with clean fill, covering the clean fill with grass sod, landscaping and yard restoration, driveway and sidewalk replacement, and final detailing. The response action on OU1, OU2, and OU3 was performed in two phases; the first phase began October 15, 1998 and concluded February 2, 2000. The second phase began in August 2000 and was concluded in April 2001. At its conclusion, EPA had implemented the removal action on 99% of the site (nine private homeowners elected not to participate in the removal action). Owners of properties that were not part of the response action received a letter and fact sheet from EPA stating that maintaining the surface vegetation will minimize the potential exposure to contaminants in the subsurface soils and will prevent soil erosion. The letter also informed the residents that the contaminants of concern do not readily dissolve in water, but adhere to soil particles. Thus, in the event of a flood, the contaminants in the subsurface soil are expected to remain in place and not pose an additional risk of exposure to the residents.

EPA coordinated with the utility companies serving the communities within the site's boundary. The EPA developed Technical Abstract papers providing instructions for utility repair excavations which will ensure the continued integrity of the permeable barrier on those properties where it was installed. Instructions for excavation both above and below the geotextile barrier were included in the paper.

Copies of the Technical Abstracts were provided to all of the utility companies and also made available at the repositories. The EPA also conducted a field demonstration of excavation and backfill procedures for utility companies at the Site on December 1, 1999.

3.5 Basis for Taking Action

The purpose of the response actions conducted at the Agriculture Street Landfill Superfund Site was to protect public health and the environment from releases or threatened releases of hazardous substances from the site. Exposure to affected soil, ground water, surface water and sediment was determined to be associated with human health risks higher than the acceptable range. The primary threats that the site posed to public health were: direct and indirect contact, ingestion, and inhalation of soil and waste that contain contaminants of potential concerns (COPCs) at concentrations that could pose unacceptable risks to a potentially exposed individual and ecological receptors; and the release of COPC-contaminated dust to the air at concentrations that could adversely affect human health and the environment. There was no identified pathway for exposure to impacted ground water.

3.6 Progress Since Initiation of Response Actions

EPA and LDEQ agree that response actions for the site are complete and that no further action is required. A total of approximately 69,032 tons of material were excavated and disposed. Approximately 70,081 cubic yards of sand backfill, and 125,865 cubic yards of topsoil were used in backfill, capping, and restoration on the site. Also, 55,732 square yards of sod were installed. Fences, gates, asphalt and concrete roadways, driveways, and sidewalks removed or damaged during the removal action were replaced or repaired (**EPA, 2000**, and **E&E, 2001**).

4.0 Remedial Actions

No remedial actions have been performed at the site. The time-critical and non-time critical removal actions performed at the site were found to be sufficient to protect human health and the environment, and the RODs for all five OUs specified a remedy of no further action. This section provides a brief description of the remedy selection process described by the RODs. It also describes the ongoing maintenance procedures required to maintain the cover placed during the removal actions.

4.1 Remedy Objectives

The objective of any selected remedy is to protect human health and the environment. For this site, abatement of risks to human health and the environment from site contaminants was accomplished by completion of early removal actions and a large-scale non-time-critical removal action (**EPA, 2002a)**.

4.2 Remedy Selection

The Record of Decision (ROD) for the Agriculture Street Landfill Superfund Site OU1, OU2, and OU3 was signed in April 2002. Because previous actions were found to have addressed unacceptable risks posed by site contaminants, EPA has determined that No Further Action was the selected remedy necessary to protect public health or welfare or the environment at OU1, OU2, OU3 (**EPA, 2002a**), and OU4 (**EPA, 1997a**). No further action was also selected for OU5 (ground water) due to a lack of exposure pathways (**EPA, 1997a**).

4.3 Remedy Implementation

Based on the findings in the RODs for OU1, OU2, OU3, OU4, and OU5, no further action was the selected remedy, and no remedial action was performed. The time-critical and non-time-critical removal actions performed at the site provided for protection of human health and the environment.

4.4 Operation and Maintenance

Because hazardous materials remain onsite following the time-critical and non-time-critical removal actions, access is restricted. Operation and maintenance activities involve maintenance of the soil/geotextile and vegetative covers; these maintenance activities are to be provided by the respective property owner. Post-closure care of the clean soil/geotextile and vegetative cover consists of routine activities to maintain the integrity of the surface soil and vegetation on each property. Surface maintenance includes filling holes above the geotextile barrier with clean soil and continued cultivation of vegetation to ensure a healthy cover over the clean fill. In the event that excavation below the geotextile barrier is required, EPA also provided property owners with procedures for excavation of soil from below the barrier, re-placement of that soil, and restoration of the geotextile barrier (**EPA, 2000**).

Instructions for maintenance of the cover were provided for each OU property owner when the site work was completed, in the form of a Closeout Letter for OU1, OU2, and OU3 Property Owners. These instructions are reproduced as **Attachment 6** to this five-year review report. A followup letter was also sent to OU1, OU2, and OU3 property owners to provide supplemental information regarding the importance of the Certificate of Completion provided in the Closeout Letter, the potential impact a natural disaster might have on the properties, and the status of plans to review the soil removal action.

EPA also coordinated with the utility companies serving the communities within the site's boundary. The EPA developed Technical Abstract papers providing instructions for utility repair excavations which will ensure the continued integrity of the permeable barrier on those properties where it was installed. Instructions for excavation both above and below the geotextile barrier were included in the paper. Copies of the Technical Abstracts were provided to all of the utility companies and also made available at the repositories. The EPA also conducted a field demonstration of excavation and backfill procedures for utility companies at the Site on December 1, 1999.

Access to OU1 is restricted by an eight-foot high chain-link security fence with locked gates that may require occasional maintenance. Semi-annual inspections of the access controls and the covered areas are performed by LDEQ personnel. The Action Memorandum called for removal of the fence around OU1 once the non-time-critical removal action was completed; however, at the request of OU1 property owners, EPA left the fence in place at the conclusion of the removal action.

5.0 Five-Year Review Process

This five-year review has been conducted in accordance with the EPA's Comprehensive Five-Year Review guidance, dated June 2001 (**EPA, 2001**). Interviews were conducted with relevant parties; a site inspection was conducted; and applicable data and documentation covering the period of the review were evaluated. The findings of the review are described in the following sections.

5.1 Administrative Components

The five-year review for this site was initiated by the EPA when EPA contractor CH2M HILL, Inc., was tasked to perform the technical components of the review. A public notice announcing initiation of the

five-year review was published in *The Times-Picayune*, published in New Orleans, during October 2002. The review team was led by the EPA Remedial Project Manager (RPM) for this site, Ms. Ursula Lennox/ EPA Region 6. A LDEQ agency representative, Mr. William Perry/LDEQ, assisted the review team, providing information related to the Agriculture Street Landfill Site and assistance during the site inspection. The components of the review included community involvement, document review, data review, a site inspection, interviews, and development of this five-year review report, as described in the following paragraphs.

5.2 Community Involvement

A public notice announcing initiation of the five-year review was published in *The Times-Picayune* during October 2002. Upon signature, the five-year review report will be placed in the information repositories for the site, including the Norman Mayer Gentilly Library Branch in New Orleans, Louisiana, the LDEQ office in Baton Rouge, Louisiana, and the EPA Region 6 office in Dallas, Texas. A notice will be published in *The Times-Picayune* to summarize the findings of the review and announce the availability of the report at the information repositories. Copies of the two public notices are provided as **Attachment 5** to this report.

5.3 Document Review

This five-year review included a review of relevant site documents, including decision documents, construction and implementation reports, and related monitoring data. Documents that were reviewed are listed in **Attachment 1**.

5.4 Data Review

Various types of data have been collected during the response actions. Data collected to document the performance of the response action construction included air monitoring, and sampling of shallow soil borings.

5.5 Interviews

In-person interviews were conducted with the onsite EPA Community Outreach office manager, a member of the Desire/Florida Community Council and a LDEQ representative. Interview forms were also provided (by e-mail, fax, or hand delivery) to additional community members, personnel from local agencies or representatives, and personnel from environmental agencies and contractors associated with the site. The completed interview record forms, which document the interviews are presented in **Attachment 2**.

The impressions from the interviews were that the remedies incorporated at the site are functioning as designed, and work conducted at the site was professionally performed. Ongoing community concerns do exist regarding the site. One common concern was the dumping, vandalism, and trespassing incidents that continue to occur at OU1. In addition, the interviewed community residents in general indicated that the fill soil had too high a sand content and that grass, flowers and trees do not grow as well as they did prior to the response actions. Some community residents also have continuing concerns regarding the protectiveness of the removal actions conducted at the site.

EPA addressed community concerns throughout the removal action through availability sessions, fact sheets/bulletins, and in responsiveness summaries found in RODs developed for OU1 - OU3, OU4 and OU5. These documents are part of the Administrative Record which is available at the site repositories.

5.6 Site Inspection

A site inspection was conducted on October 17, 2002. The completed site inspection checklist is provided in **Attachment 3**. Photographs taken during the Agriculture Street Landfill Site inspection are provided in **Attachment 4**. Site conditions on OU1, the undeveloped property, are depicted in **Photograph Nos. 2 - 5, 7 - 11, 19 - 24, 26, 27 - 39, 43, and 44**. Conditions on OU2, the residential properties, are depicted in **Photograph Nos. 1, 3, 6, 12, 13, 17, 18, and 45**. Site conditions at OU3, the Shirley Jefferson Community Center, are depicted in **Photograph Nos. 14 - 16**.

OU1 is surrounded by an eight-foot high chain-link fence, with coiled barbed-wire along the top. The fence has several locked gates (**Photograph Nos. 2, 4, 11, 25, and 40**) to restrict access to this area. It

appeared that one gate (**Photograph 4**) had been forced apart enough to allow unauthorized access. A section of the east perimeter fence (**Photograph 26**), located near the intersection of St. Ferdinand Street, had been breached to allow unauthorized access to this area of OU1. Most of the perimeter fence is overgrown with vegetation (**Photograph Nos. 1-5, 25, 26, 38, and 39**) making it difficult to determine its condition. Trash and concrete rubble has been discarded at several locations along the fence line (**Photograph Nos. 1, 2, 4, and 37**).

The southern portion of OU1 (**Photograph Nos. 7, 8, and 19 - 24**) is covered with moderate to heavy vegetation consisting of bermuda grass (**Photograph Nos. 19, 22 and 24**), weeds, shrubs and small trees (**Photograph Nos. 19, 20, 21, 23, and 24**). The largest portion of OU1, parallel to and east of Almonaster Boulevard, is also covered with varying degrees of vegetative cover. Most of this portion of OU1 is covered with moderate to heavy vegetation (**Photograph Nos. 35, 37, 38, 39, and 44**).

A portion of the northern section of OU1 is currently used to store an assortment of vehicles consisting of cars, trucks, trailers and Mardi Gras floats (**Photograph Nos. 10, 32, 33, and 36**). Most of these vehicles appear to be damaged or are in various states of disrepair. Several piles of used tires (**Photograph Nos. 27 - 29, and 35**) are also located on this area. Three uncapped buckets (**Photograph Nos. 28 and 29**), labeled as having contained hydraulic fluid, were located at one tire pile. A bare patch of soil/distressed grass with stained soil (**Photograph 30**) was also located near the stored vehicles. Ruts in the surface soil (**Photograph Nos. 31, 33 and 34**) were also observed in this area. The deepest of these ruts was approximately six inches deep. **Photograph Nos. 11, and 40-42** are of the gravel covered former Command Center area, used for site response activities. One structure remains onsite (**Photograph Nos. 25, and 44**). This building may have been part of the former incinerator facility at the landfill and was likely used as a salvage building where recyclable or recoverable materials were separated from waste materials to be landfilled.

Photograph Nos. 1, 3, 6, 12, 13, 17, 18, and 45 were taken at various locations of OU2. Properties occupied by single family dwellings are generally well-maintained (**Photograph Nos. 1, 6, 12, and 17**). Some of the town home locations (**Photograph Nos. 13, 16, and 18**) are well maintained, but some appear to be vacant, boarded up and appear to have fallen into disrepair.

Photograph Nos. 14, 15, and 16 were taken at OU3. The grounds and building exterior appear to be in generally good condition. A section of the parking lot (**Photograph 16**) had what appeared to be pieces of rock or brick scattered over it.

6.0 Technical Assessment

The five-year review must determine whether the remedy at a site is protective of human health and the environment. The EPA guidance describes three questions used to provide a framework for organizing and evaluating data and information and to ensure all relevant issues are considered when determining the protectiveness of a remedy. These questions are assessed for the site in the following paragraphs. At the end of the section is a summary of the technical assessment.

6.1 Question A: Is the Remedy Functioning as Intended by the Decision Documents?

The documents that detail the response action decisions for the site are the September 1997 Action Memorandum for Non-Time Critical Removal Action at OU1, OU2, and OU3, the September 1997 ROD for OU4 and OU5, and the April 2000 ROD for OU1, OU2, and OU3. EPA and LDEQ have concurred that the response actions for the site defined by these documents are complete. Based on the data review, the site inspection, and interviews, it appears that the selected response actions (a series of removal actions followed by a no further action ROD) is functioning as intended by the decision documents. Early indicators of potential remedy problems, and institutional controls are described below.

Opportunities for Optimization. Not applicable.

Early Indicators of Potential Remedy Problems.

During the site inspection, it was observed that ruts had been made in the surface soil on OU1. These ruts are in an area that is used to store various vehicles and trailers. It is possible that these ruts were made by the act of moving these vehicles around the site. Some of the ruts appear to be approximately six inches deep, but do not appear to intersect the geotextile barrier. However, deeper ruts could damage the cover and the geotextile barrier, permitting exposure to the soil beneath the barrier. The cover for OU1 consists of 12 inches of soil followed by revegetation.

Upon completion of the removal action at the site, a closeout letter was provided for property owners of each OU (**EPA, 2000**). This letter described the operation and maintenance activities that should be continued by the owner. In addition to a description of routine maintenance such as continued cultivation of grass, shrubbery, and trees, this letter also provided a description of procedures if excavation below the geotextile fabric is required. The procedure addressed handling of soil excavated from below the geotextile barrier providing this excavated soil can be placed back into the excavation below the barrier as backfill. Procedures were not provided for handling/disposal of soil excavated from beneath the barrier that cannot be returned to the excavation below the barrier as backfill such as during the planting of a tree.

Institutional Controls. The undeveloped property (OU1) is currently zoned as commercial/light industrial, preventing land development of the property for residential use. The property is also enclosed by an eight-foot high security fence placed there prior to the non-time-critical removal action to limit unauthorized access, but the fence appears to be in disrepair at some locations along the perimeter.

6.2 Question B: Are the Exposure Assumptions, Toxicity Data, Cleanup Levels, and Remedial Action Objectives (RAOs) Used at the Time of the Remedy Selection Still Valid?

The purpose of this question is to evaluate the effects of any significant changes in standards or assumptions used at the time of remedy selection. Changes in promulgated standards or "to be considereds" (TBCs) and assumptions used in the original definition of the remedial action may indicate an adjustment in the remedy is necessary to ensure the protectiveness of the remedy.

EPA Region 6 did not set an action level for lead (or other specific chemical) contamination in soil at this site. The response action was to construct a clean soil barrier between subsurface contaminants and surface receptors, thus removing the potential for people to come into contact with contaminants at any concentration level in the surface soil (**EPA, 2002a**)

Changes in ARARs. ARARs for this site were identified in the Engineering Evaluation /Cost Analysis (EE/CA) report dated August 1996. The five-year review for this site included identification of and

evaluation of changes in the EE/CA-specified ARARs to determine whether such changes may affect the protectiveness of the selected remedy. Four ARARs were identified for the Agriculture Street Landfill Site. The ARARs identified by the EE/CA for the site include the following:

1. Standards for the containment and control of storm water runoff. During large scale soil operations at the site the appropriate regulation for the containment and control of storm water would be Louisiana Administrative Code (LAC) 33:IX.3.

2. Air regulations for fugitive emissions/dust control during soil operations at the site would be LAC 33:III.7.

3. There are notification requirements for any nonhazardous soil/waste material excavated from the site and disposed of at a commercial solid waste disposal facility located in the state of Louisiana, per Louisiana Revised Statutes 30:2154. Specifically, it is unlawful for a solid waste disposal facility to receive solid waste from the cleanup of a Superfund site without notifying LDEQ 30 days prior to the arrival of the waste.

4. Transportation of site soil/waste material to an off-site disposal facility must be done in accordance with the federal Department of Transportation rules for the transportation of waste materials (49 CFR Parts 107, 171.1-172.558).

Two additional potential ARARs, one for ground water and one for municipal solid waste landfill closure regulations, were evaluated as part of the EE/CA. The potential ARAR for ground water was represented by MCLs for drinking water. The solid waste landfill closure requirements were set by Louisiana solid waste management regulations. The LDEQ has indicated that the shallow ground water beneath the site is not suitable for human consumption and should not be considered a potential source of drinking water (**E&E, 1996**). Therefore, MCLs are not considered ARARS for the site. Also, because the shallow ground water beneath the site is not suitable for human consumption, long-term ground water monitoring is not included as a component of any of the alternatives (**E&E, 1996**). The provisions detailing the requirements for landfill closure and post-closure care are the Louisiana solid waste management

regulations (LAC 33:vII.711.E and F). However, based on correspondence from LDEQ, the Louisiana solid waste regulations are not an ARARs for the site because the landfill was closed before 1982, when Louisiana's regulations were implemented (**E&E, 1996**).

EPA Region 6 Risk Based Concentrations (RBC) have been identified as TBC requirements. RBC are not regulations or guidance; they are concentrations of chemicals in soil that correspond to an estimated excess cancer risk of $1x10^{-6}$ for an age-integrated residential receptor (exposure during childhood and adult years combined) using standard default exposure assumptions, and are intended to serve as a screening mechanisms for COPCs at a site. If the concentrations of a COPC exceed its respective RBC, further action (e.g. remediation) may be warranted at the site.

The LDEQ and the Federal RCRA regulations have not been revised to the extent that the effectiveness of the remedy at the site would be called into question, although new standards have been set for lead and arsenic levels in soil.

The EE/CA compared EPA Region 6 Risk Based Concentration (RBC) levels to Site soil concentrations. The lead RBC is 480 mg/kg and the arsenic RBC is 0.370 mg/kg (**E&E, 1996**). The current EPA Region 6 Human Health Medium Specific Screening levels for arsenic and lead for residential exposure are 22 mg/kg and 400 mg/kg, respectively. The State of Louisiana adopted the Risk Evaluation/ Corrective Action Program (RECAP) in December 1998, most recently revised in June 2000. The RECAP soil standards for arsenic and lead for surface soil and potential surface soil at non industrial sites are 0.380 mg/kg and 400 mg/kg, respectively.

Changes in Exposure Pathways, Toxicity, and Other Contaminant Characteristics. There have been no changes in exposure pathways for the Agriculture Street Landfill site.

6.3 Question C: Has any Other Information Come to Light that Could Call into Question the Protectiveness of the Remedy?

No other information, such as a potential future land use change in the vicinity of the site or other expected change in site conditions or exposure pathways, etc., that might call into question the protectiveness of the selected remedy has been identified as part of this five-year review.

6.4 Summary of the Technical Assessment

The technical assessment, based on the data review, site inspection, technical evaluation, and interviews, indicates the removal actions performed at this site appear to have been implemented as intended by the decision documents. During the site inspection, it was noted that surface soil in the vehicle storage area on OU1 are rutted, probably from vehicular traffic. Deep rutting could potentially damage the geotextile barrier, increasing the potential for exposure to soil beneath the geotextile barrier. OU1 is generally covered with moderate to heavy vegetation. Property owners are responsible for maintenance of the cover and vegetative cover. Post-removal maintenance instructions for the site, provided to the OU property owners, did not fully explain the procedures for the handling/disposal of soil excavated from beneath the geotextile barrier that can not be used to backfill the excavation.

The only significant change in exposure assumptions or standards set for the site has been the new standards set for lead and arsenic levels in soil. The current EPA Region 6 Human Health Medium Specific Screening levels for arsenic and lead in soil for residential exposure are 22 mg/kg and 400 mg/kg, respectively. The State of Louisiana RECAP soil standards for arsenic and lead for surface soil and potential surface soil at non industrial sites are 0.380 mg/kg and 400 mg/kg, respectively. These standards may be considered if additional response actions are found to be required at the site. No new exposure pathways have been identified as a result of this five-year review.

7.0 Issues

During this five-year review, two issues were identified that do not currently affect the protectiveness of the remedy. The first issue regards OU1, part of which is currently used to store cars, trucks, trailers and Mardi Gras floats (observed during the five-year review site inspection). Ruts, likely made by vehicular traffic, were noted in the surface soil of OU1 in the apparent storage area. The deepest ruts appeared to be about six inches deep, and did not appear to intersect the geotextile barrier. The remainder of OU1 is covered with moderate to heavy vegetation.

The second issue regards the maintenance procedures for the cover. Instructions for maintenance of the cover were provided for each OU property owner when the site work was completed, in the form of a Closeout Letter for OU1, OU2, and OU3 Property Owners. These instructions are reproduced as

Attachment 6 to this five-year review report. A followup letter was also sent to OU1, OU2, and OU3 property owners to provide supplemental information regarding the importance of the Certificate of Completion provided in the Closeout Letter, the potential impact a natural disaster might have on the properties, and the status of plans to review the soil removal action.

The closeout letter instructions provided guidance for routine surface maintenance activities such as filling holes above the geotextile barrier, cultivation of vegetative cover, and excavation of soils below the geotextile barrier when the soils can be placed back into the excavation below the barrier as backfill. Procedures for handling/disposal of soil excavated below the barrier in the event that this material can not be returned to the excavated area beneath the barrier, such as during tree planting, were not explained fully in the O&M instructions. In addition, procedures do not appear to be in place for communicating the maintenance procedures to new property owners.

8.0 Recommendations and Follow-up Actions

While the issues described in **Section 7** do not currently affect protectiveness, certain actions are recommended to ensure continued protectiveness. First, measures should be adopted to remind the property owner of OU1, where rutting was observed, to maintain the cover. Instructions and specifications for maintenance should be included in the reminder. Also, additional guidance should be provided to OU property owners for handling/disposal of soils excavated below the barrier that can not be returned to the excavated area beneath the barrier to limit potential exposure to these materials. Finally, procedures should be established for forwarding maintenance instructions to new property owners.

9.0 Protectiveness Statement

The response actions performed at the site are considered protective of human health and the environment because the waste has been removed or contained and is protected from erosion, and a barrier has been constructed to prevent exposure to the remaining impacted soil. Because the completed response actions for the Agriculture Street Landfill site are considered protective with the existence of surface vegetation and a soil barrier covering subsurface contaminants that are expected to remain in place over time, the remedy for the site, including all five OUs, is protective of human health and the

environment, and will continue to be protective if the action items identified in this five-year review are addressed.

10.0 Next Review

A second five-year review is recommended for this site to review the maintenance issues at OU1 including condition of the soil/geotextile and vegetation cover, and the implementation of maintenance instructions for OU1, OU2, and OU3 property owners. The second five-year review should be completed during or before June 2008.

200 0 200 400 Feet

Figure 1
Site Map
Agriculture Street Landfill
First Five-Year Review Report
(figure adopted from EPA, 2000)

LEGEND
Site Boundary
Rail Road
Road
Concrete
Building
Property Boundary

ecology and e
Superfund Technical
& Response Team –

ATTACHMENT AA
ADDRESS MAP
AGRICULTURE STREET LANDFILL
NEW ORLEANS, ORLEANS PARISH, LOUISIANA

TDD No.: S06-98-09-0004	Date: June 15, 2000
CERCLIS No.: LAD981056997	P.M.: David Bordelon
File Name: SITEINFO Project	Created By: Brad Morgan

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Table 1
Chronology of Site Events
Agriculture Street Landfill Superfund Site
Orleans Parish, New Orleans, Louisiana

Date	Event
1909	Operation of the site as a landfill began.
1948	Dump/landfill was converted to use as a sanitary landfill
1958	The landfill was closed
1965	The landfill was reopened as an open burning and disposal area for debris created by Hurricane Betsy
1977 to 1986	The northern portion (approximately 47 acres) of the site was re-developed to support housing (390 properties are on the site of the old landfill), small businesses and the Moton Elementary school.
1985	Moton Elementary School constructed.
1986	EPA completed a site investigation. Under the 1982 Hazard Ranking System, the site did not qualify for placement on the NPL
1993	The Louisiana Office of Public Health and Agency for Toxic Substances and Disease Registry established a community assistance panel for citizens living near the Site.
September 1993	EPA (at the request of area community leaders) initiated an Expanded Site Investigation.
March 1994	EPA initiated a time-critical removal action consisting of installation of an 8-foot high fence around the undeveloped portion of the former landfill.
April 1994	EPA opened an outreach office at the site to involve the community at every level of the Superfund technical and administrative process.
April-June 1994	EPA conducted Remedial/Removal Integrated Investigation (RRII) of the entire site.
August 1994	The site was proposed for inclusion on the NPL as part of NPL update No. 17.
September 1994	A Technical Assistance Grant was awarded by EPA
December 1994	EPA placed the site on the NPL.
February 1995	EPA conducted a second time-critical removal action to address elevated lead found on the Press Park Community Center property and performed air and groundwater sampling.

Table 1
Chronology of Site Events
Agriculture Street Landfill Superfund Site
Orleans Parish, New Orleans, Louisiana

Date	Event
March 1995	EPA completed the RRII
March 1996	EPA officials met with site residents to discuss site issues, alternatives, and community concerns.
April 1996	The community and TAG advisor were provided with copies of the draft proposed Plan of Action and draft EE/CA Report for comments and input.
1996	EPA completed a third time-critical removal action to repair the fence around the undeveloped property (OU1).
August 1996	Engineering Evaluation Cost Analysis (EE/CA) report completed.
February 1997	The Proposed Plan of Action was formally released.
September 1997	EPA entered into an interagency agreement with the USACE to conduct the soil removal action.
September 1997	Action Memorandum for a non-time-critical removal action for OU 1, OU2, and OU3 is completed.
September 1997	ROD for OU 4 and OU 5 signed
1998 - 2000	Non-Time Critical Removal Action for OU1, OU2, and OU3
June 2000	Final Removal Close Out Report submitted
June 2000	OU 4 and OU 5 removed from NPL
August 2000 - April 2001	Phase II Non-Time Critical Removal action for OU 1, OU 2, and OU 3
April 27, 2001	Final Site Inspection performed
October 12, 2001	Proposed Plan of Action for OU 1, OU 2, and OU 3 (No Further Action) completed.
April 2002	ROD for OU1, OU2 and OU 3 signed
April 2002	Final Close Out Report was submitted
June 2003	First Five-Year Review completed.

Attachment 1
Documents Reviewed

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Attachment 1
Documents Reviewed

Ecology and Environment, Inc.(E&E) 1986. *Site Inspection Report For Agriculture Street Landfill Site*. December 18, 1986.

Ecology and Environment, Inc.(E&E) 1995. *Remedial Removal Integrated Investigation Report For The Agriculture Street Landfill Site.* March 1995.

Ecology and Environment, Inc.(E&E) 1996. *Final Engineering Evaluation/Cost Analysis For The Agriculture Street Landfill Site.* August 1, 1996.

Ecology and Environment, Inc.(E&E) 2001. *Phase II Close Out Report For The Agriculture Street Landfill Superfund Site, New Orleans, Louisiana.* June 2001.

U. S. Environmental Protection Agency (EPA), 1994. *Request for Removal Action at the Agriculture Street Landfill Site, New Orleans, Orleans Parish, Louisiana.* March 14, 1994.

U. S. Environmental Protection Agency (EPA), 1995. *Request for Removal Action at the Press Park Community Center on the Agriculture Street Landfill Site, New Orleans, Orleans Parish, Louisiana.* February 7, 1995.

U. S. Environmental Protection Agency (EPA), 1996. *Request for Removal Action at the Agriculture Street Landfill Site, New Orleans, Orleans Parish, Louisiana.* March 5, 1996.

U. S. Environmental Protection Agency (EPA), 1997a. *Action Memorandum for Non-Time Critical Removal Action for OU1, 2, 3 and a Record of Decision for OU4 and OU5 at the Agriculture Street Landfill Site, New Orleans, Orleans Parish, Louisiana.* September 2, 1997.

U. S. Environmental Protection Agency (EPA), 1997b. *Agriculture Street Landfill Superfund Site Selection of Remedy Fact Sheet.* September 2, 1997.

U. S. Environmental Protection Agency (EPA), 1997c. *Record of Decision, Agriculture Street Landfill Superfund Site Operable Unit 4 and Operable Unit 5.* September 2, 1997.

U. S. Environmental Protection Agency (EPA), 2000. *Final Removal Close Out Report Agriculture Street Landfill Superfund Site.* June 2000.

U. S. Environmental Protection Agency (EPA), 2001. *Comprehensive Five-Year Review Guidance*. OSWER No. 9355.7-03B-P. June 2001.

U. S. Environmental Protection Agency (EPA), 2002a. *Record of Decision, Agriculture Street Landfill Superfund Site Operable Unit 1, Operable Unit 2, Operable Unit 3.* April 2002.

U. S. Environmental Protection Agency (EPA), 2002b. *Final Close Out Report Agriculture Street Landfill Superfund Site, New Orleans, Louisiana.* April 2002.

Attachment 2

Interview Record Forms

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Five-Year Review Interview Record Agriculture Street Landfill Superfund Site New Orleans, Orleans Parish, Louisiana	**Interviewee:** Mr. William Perry Affiliation: Louisiana Department of Env. Quality Phone: 225-765-0461 Email: william_p@deq.state.la.us

Site Name	**EPA ID No.**	**Date of Interview**	**Interview Method**
Agriculture Street Landfill	LAD981056997	October 17, 2002	in person

Interview Contacts	**Organization**	**Phone**	**Email**	**Address**
Please return completed interview form to M. O'Hare at fax 972-385-5102 or the return address or email listed below.				
Ursula Lennox	EPA Region 6	214-665-6743	lennox.ursula @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Margaret O'Hare	CH2M HILL, EPA contractor	972-980-2170	mohare@ ch2m.com	12377 Merit Drive, Suite 1000 Dallas, Texas 75251
Bill Thomas	CH2M HILL, EPA contractor	972-980-2170	wthomas2@ ch2m.com	12377 Merit Drive, Suite 1000 Dallas, Texas 75251

Purpose of the Five-Year Review

The purpose of the five-year review is to evaluate the implementation and performance of the remedy, to confirm that human health and the environment continue to be protected by the actions performed. The five-year review for the Agriculture Street site focuses on the soil removal action performed for the residential properties, the community center, and the undeveloped property.

The removal action on the undeveloped property (OU1) involved clearing, grading, placement of orange marker mat, covering with 12 inches of clean fill, and re-establishing vegetation. The removal action on the residential (OU2) and community center (OU3) properties involved excavation of 24 inches of soil, placement of orange marker mat, backfilling with clean fill, and covering with grass sod.

Interview Questions

1. What is your overall impression of the soil removal action conducted at the site from 1997 through 2001?

Response: EPA did a very good job. EPA took extra care by using small equipment around houses and buildings. LDEQ is very appreciative of EPA doing this as a removal action.

2. From your perspective, what effect have the removal actions at the site had on the surrounding community? Are you aware of any ongoing community concerns regarding the site?

Response: The effect was positive. Landscaping did improve the aesthetics of the community resulting in more community pride. The community is concerned with the undeveloped property. It is not well maintained

3. Have there been routine communications or activities (site visits, inspections, reporting activities, etc.) conducted by your office regarding the site? Please describe purpose and results.

Response: There have not been direct communications with the community. Communications have been through EPA. LDEQ was present for inspections and conducts twice yearly site visits.

4. Have there been any complaints, violations, or other incidents related to the site that required a response by your office? If so, please give summarize the events and result.

Response: None by LDEQ.

5. Are you aware of any incidents at the site, such as dumping, vandalism, trespassing, or anything requiring emergency response from local authorities?

Response: There have been many incidents of dumping (trash, junk cars etc.), vandalism and trespassing. Some incidents have required response by authorities.

6. Do you know if there were opportunities to optimize the performance of the removal action during its performance, and whether such opportunities were implemented?

Response: No. Small equipment was used during the removal action. Adjustments were made as required during the removal action.

7. Are you aware of any problems or difficulties encountered after the initiation of remedial action which impacted removal action progress and implementability or a change in O&M procedures? Please describe changes and impacts.

Response: Residents that originally did not want work done, changed their minds and brought EPA back to the site. There is concern about repairs being performed properly in excavations that intersect the excavation marker mat. Eight property owners declined to have work done on their properties.

8. Have there been any changes in state or federal environmental standards since the Non-Time Critical Removal Action Memorandum was signed in September 1997 which may call into question the protectiveness or effectiveness of the removal action?

Response: Risk Evaluation/Corrective Action Program (RECAP) adopted in 1998, would require three feet of soil cover instead of two feet.

9. Do you feel well-informed about the site's status?

Response: Yes, in areas of my involvement.

10. Do you have any comments, suggestions, or recommendations regarding the site or its administration?

Response: EPA could provide Federal contacts for the community (such as HUD) to determine what more can be done for the community.

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Five-Year Review Interview Record Agriculture Street Landfill Superfund Site New Orleans, Orleans Parish, Louisiana	**Interviewee:** Mr. Craig Carroll Affiliation: U.S. Environmental Protection Agency Phone: 214-665-2220

Site Name	**EPA ID No.**	**Date of Interview**	**Interview Method**
Agriculture Street Landfill	LAD981056997	October 22, 2002	e-mail

Interview Contacts	**Organization**	**Phone**	**Email**	**Address**
Please return completed interview form to M. O'Hare at fax 972-385-5102 or the return address or email listed below.				
Ursula Lennox	EPA Region 6	214-665-6743	lennox.ursula @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Margaret O'Hare	CH2M HILL, EPA contractor	972-980-2170	mohare@ ch2m.com	12377 Merit Drive, Suite 1000 Dallas, Texas 75251
Bill Thomas	CH2M HILL, EPA contractor	972-980-2170	wthomas2@ ch2m.com	12377 Merit Drive, Suite 1000 Dallas, Texas 75251

Purpose of the Five-Year Review

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The removal action on the undeveloped property (OU1) involved clearing, grading, placement of orange marker mat, covering with 12 inches of clean fill, and re-establishing vegetation. The removal action on the residential (OU2) and community center (OU3) properties involved excavation of 24 inches of soil, placement of orange marker mat, backfilling with clean fill, and covering with grass sod.

Interview Questions

1. What is your overall impression of the soil removal action conducted at the site from 1997 through 2001?

Response: The removal action was successful in identifying and protecting area residents from the immediate threats posed by the site.

2. From your perspective, what effect have the removal actions at the site had on the surrounding community? Are you aware of any ongoing community concerns regarding the site?

Response: One of the major effects was educating area residents about EPA, the Superfund remediation process, and the National Contingency Plan. According to several citizens, the removal action also lowered the crime rate in area neighborhoods.

During the time of my involvement the community was always concerned about the effect the removal action would have on property value in the area.

3. Have there been routine communications or activities (site visits, inspections, reporting activities, etc.) conducted by your office regarding the site? Please describe purpose and results.

Response: Pollution Reports were generated regularly to document site activities and inform RRT member agencies of progress and issues at the site.

EPA also communicated regularly with area residents through a community relations office established in the neighborhood, several door-to-door surveys, and several public meetings. The purpose of these activities was to solicit public input, keep area resident apprised of site clean-up activities, and educate the affected community on the Superfund process and the National Contingency Plan.

4. Have there been any complaints, violations, or other incidents related to the site that required a response by your office? If so, please summarize the events and result.

Response: EPA received numerous citizen complaints regarding the site such as dust blowing, mutated bees, noise complaints, etc. which required some level of investigation and response to the public.

5. Are you aware of any incidents at the site, such as dumping, vandalism, trespassing, or anything requiring emergency response from local authorities?

Response: There were a number of incidents at the site requiring such response. Unauthorized dumping was common around the site, several cars were set on fire at the site, one survey crew was shot at during removal assessment activities, and a security guard who worked at the EPA Command Post was robbed on the way to work one morning. All these actions required involvement from local authorities.

6. Do you know if there were opportunities to optimize the performance of the removal action during its performance, and whether such opportunities were implemented?

Response: There were not opportunities I was aware of to optimize performance of the removal action.

7. Are you aware of any problems or difficulties encountered after the initiation of remedial action which impacted removal action progress and implementability or a change in O&M procedures? Please describe changes and impacts.

Response: One of the major problems was working with the City of New Orleans. As a PRP they were recalcitrant and the city offices were difficult to work with, provided little or no support to the removal action, and generally unnecessarily delayed all activities they were involved in.

8. Have there been any changes in state or federal environmental standards since the Non-Time Critical Removal Action Memorandum was signed in September 1997 which may call into question the protectiveness or effectiveness of the removal action?

Response: Not that I am aware of.

9. Do you feel well-informed about the site's status?

Response: At the time of my involvement yes.

10. Do you have any comments, suggestions, or recommendations regarding the site or its administration?

Response: Removal actions, as envisioned by Congress under the National Contingency Plan, are not designed to handle sites such as this. With the exception of a few discrete parts such as fencing and soil removal in high access areas, sites of this size and threat type are much more effectively and efficiently handled as a Non-Time Critical Removal Action or Remedial Action.

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Five-Year Review Interview Record Agriculture Street Landfill Superfund Site New Orleans, Orleans Parish, Louisiana	**Interviewee:** Mr. Jim Montegut Affiliation: U.S. Army Corps of Engineers Phone: 504-947-5915 Fax: 504-947-9181

Site Name	**EPA ID No.**	**Date of Interview**	**Interview Method**
Agriculture Street Landfill	LAD981056997	October 22, 2002	Fax

Interview Contacts	**Organization**	**Phone**	**Email**	**Address**
Please return completed interview form to M. O'Hare at fax 972-385-5102 or the return address or email listed below.				
Ursula Lennox	EPA Region 6	214-665-6743	lennox.ursula @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Margaret O'Hare	CH2M HILL, EPA contractor	972-980-2170	mohare@ ch2m.com	12377 Merit Drive, Suite 1000 Dallas, Texas 75251
Bill Thomas	CH2M HILL, EPA contractor	972-980-2170	wthomas2@ ch2m.com	12377 Merit Drive, Suite 1000 Dallas, Texas 75251

Purpose of the Five-Year Review

The purpose of the five-year review is to evaluate the implementation and performance of the remedy, to confirm that human health and the environment continue to be protected by the actions performed. The five-year review for the Agriculture Street site focuses on the soil removal action performed for the residential properties, the community center, and the undeveloped property.

The removal action on the undeveloped property (OU1) involved clearing, grading, placement of orange marker mat, covering with 12 inches of clean fill, and re-establishing vegetation. The removal action on the residential (OU2) and community center (OU3) properties involved excavation of 24 inches of soil, placement of orange marker mat, backfilling with clean fill, and covering with grass sod.

Interview Questions

1.What is your overall impression of the soil removal action conducted at the site from 1997 through 2001?

Response: Work conducted in a workman like manner. Completed on schedule & under budget. Work performed was consistent with requirements approved by USEPA and as stated in contract work plans.

2.From your perspective, what effect have the removal actions at the site had on the surrounding community? Are you aware of any ongoing community concerns regarding the site?

Response: Remediated areas are free of requirement to disclose as a contaminated site during sale of property.

No.

3.Have there been routine communications or activities (site visits, inspections, reporting activities, etc.) conducted by your office regarding the site? Please describe purpose and results.

Response: No.

4.Have there been any complaints, violations, or other incidents related to the site that required a response by your office? If so, please give summarize the events and result.

Response: No.

5.Are you aware of any incidents at the site, such as dumping, vandalism, trespassing, or anything requiring emergency response from local authorities?

Response: No.

6.Do you know if there were opportunities to optimize the performance of the removal action during its performance, and whether such opportunities were implemented?

Response: Not aware of any opportunities.

7.Are you aware of any problems or difficulties encountered after the initiation of remedial action which impacted removal action progress and implementability or a change in O&M procedures? Please describe changes and impacts.

Response: Lack of access agreements from property owners caused delays in overall project schedule & prevented 100% remediation.

8.Have there been any changes in state or federal environmental standards since the Non-Time Critical Removal Action Memorandum was signed in September 1997 which may call into question the protectiveness or effectiveness of the removal action?

Response: Not aware of anything Re: such changes.

9.Do you feel well-informed about the site's status?

Response: N/A

10.Do you have any comments, suggestions, or recommendations regarding the site or its administration?

Response: No.

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Five-Year Review Interview Record Agriculture Street Landfill Superfund Site New Orleans, Orleans Parish, Louisiana	**Interviewee:** Mr. Dave Bordelon Affiliation: Weston Solutions (formerly of E&E) Phone: 225-756-0822 ext. 107 Fax: 225-756-0853

Site Name	**EPA ID No.**	**Date of Interview**	**Interview Method**
Agriculture Street Landfill	LAD981056997	October 30, 2002	fax

Interview Contacts	**Organization**	**Phone**	**Email**	**Address**
Please return completed interview form to M. O'Hare at fax 972-385-5102 or the return address or email listed below.				
Ursula Lennox	EPA Region 6	214-665-6743	lennox.ursula @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Margaret O'Hare	CH2M HILL, EPA contractor	972-980-2170	mohare@ ch2m.com	12377 Merit Drive, Suite 1000 Dallas, Texas 75251
Bill Thomas	CH2M HILL, EPA contractor	972-980-2170	wthomas2@ ch2m.com	12377 Merit Drive, Suite 1000 Dallas, Texas 75251

Purpose of the Five-Year Review

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Interview Questions

1. What is your overall impression of the soil removal action conducted at the site from 1997 through 2001?

Response: My impression of the soil removal action is, the action properly addressed the threat of human contact with the contaminated soils at the site.

2. From your perspective, what effect have the removal actions at the site had on the surrounding community? Are you aware of any ongoing community concerns regarding the site?

Response: I feel that the actions have had a positive effect on the surrounding community by removing soils which may have had contaminants with negative health affects and replacing the soils with clean backfill and new landscaping.

3. Have there been routine communications or activities (site visits, inspections, reporting activities, etc.) conducted by your office regarding the site? Please describe purpose and results.

Response: No.

4. Have there been any complaints, violations, or other incidents related to the site that required a response by your office? If so, please give summarize the events and result.

Response: No.

5. Are you aware of any incidents at the site, such as dumping, vandalism, trespassing, or anything requiring emergency response from local authorities?

Response: No.

6. Do you know if there were opportunities to optimize the performance of the removal action during its performance, and whether such opportunities were implemented?

Response: Not to my knowledge.

7. Are you aware of any problems or difficulties encountered after the initiation of remedial action which impacted removal action progress and implementability or a change in O&M procedures? Please describe changes and impacts.

Response: Yes. Lack of access agreements from some of the property owners limited some removal options. Site was demobilized after completion of all properties for which access agreements were received, then remobilized 6 months later when additional access agreements were received.

8. Have there been any changes in state or federal environmental standards since the Non-Time Critical Removal Action Memorandum was signed in September 1997 which may call into question the protectiveness or effectiveness of the removal action?

Response: Not to my knowledge.

9. Do you feel well-informed about the site's status?

Response: Yes.

10. Do you have any comments, suggestions, or recommendations regarding the site or its administration?

Response: I think the removal action was completed in the most efficient manner possible, given the circumstances.

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Five-Year Review Interview Record Agriculture Street Landfill Superfund Site New Orleans, Orleans Parish, Louisiana	**Interviewee:** Ms. Denise Batiste Affiliation: EPA Community Outreach Office Phone/email: 504-944-6445

Site Name	**EPA ID No.**	**Date of Interview**	**Interview Method**
Agriculture Street Landfill	LAD981056997	October 17, 2002	in person

Interview Contacts	**Organization**	**Phone**	**Email**	**Address**
Please return completed interview form to M. O'Hare at fax 972-385-5102 or the return address or email listed below.				
Ursula Lennox	EPA Region 6	214-665-6743	lennox.ursula @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Margaret O'Hare	CH2M HILL, EPA contractor	972-980-2170	mohare@ ch2m.com	12377 Merit Drive, Suite 1000 Dallas, Texas 75251
Bill Thomas	CH2M HILL, EPA contractor	972-980-2170	wthomas2@ ch2m.com	12377 Merit Drive, Suite 1000 Dallas, Texas 75251

Purpose of the Five-Year Review

The purpose of the five-year review is to evaluate the implementation and performance of the remedy, to confirm that human health and the environment continue to be protected by the actions performed. The five-year review for the Agriculture Street site focuses on the soil removal action performed for the residential properties, the community center, and the undeveloped property.

The removal action on the undeveloped property (OU1) involved clearing, grading, placement of orange marker mat, covering with 12 inches of clean fill, and re-establishing vegetation. The removal action on the residential (OU2) and community center (OU3) properties involved excavation of 24 inches of soil, placement of orange marker mat, backfilling with clean fill, and covering with grass sod.

Interview Questions

1. What is your overall impression of the soil removal action conducted at the site from 1997 through 2001?

Response: The process (removal action) went well.

2. From your perspective, did the soil removal action have a positive effect on the community?

Response: In general, the community was not happy but accepted the removal action. The community does not feel that the cleanup was complete. Note: Ms. Batiste feels that the cleanup was okay.

3. Are you aware of any ongoing community concerns regarding the site?

Response: The community does not feel that the cleanup was complete. Yards and flowers do not grow as well as before the removal action.

4. Are you aware of any incidents at the site, such as dumping, vandalism, trespassing, or anything requiring emergency response from local authorities?

Response: There have been many incidents. Trash gets cleaned up, but is dumped again.

5. Do you feel well-informed about the site's status?

Response: Yes. Renters are less concerned than long term homeowners.

6. Do you have any comments, suggestions, or recommendations regarding the site or its administration?

Response: Residents appear to be leaving the area. There are more boarded up homes. Some people left because of their concerns about health. Some retired residents feel that they are stuck here.

PLEASE NOTE: The responses Ms. Blanco provides in her interview response have been addressed throughout the removal action either through availability sessions, fact sheets/bulletins, and in responsiveness summaries found in RODs developed for OU1-3, and OU4 and 5. These documents are part of the Administrative Record which is available at the site repositories. ~ Notation added by EPA Region 6.

November 6, 2002

Mr. Bill Thomas
12377 Merit Drive, Suite 1000
Dallas, Texas 75251

Agriculture Street Landfill Superfund Site Five Year Review

Question #1
What is your overall impression of the soil removal action conducted at the site from 1997 through 2001?

Response:

My overall impression of the EPA soil removal on the Agriculture Street Superfund Landfill site was unprecedented unsafe and racially discriminatory. Additionally, the stated purpose of the five year review contains misleading information in that less then 24 inches of soil were removed from the residential OU2 and Community Centers OU3 properties.

Question #2
From your perspective, did the soil removal action have a positive effect on the community?

Response:

EPA soil removal action increased the health threat of toxic exposure. EPA refused to even temporarily relocate residents during its excavation of heavily contaminated soil. As a result, residents were surrounded by mounds of toxic dirt piled up by EPA; saw this toxic dirt enter their homes; and coat dishes and furnishings; and suffered from flooding and backed up pipes; and street collapses as a result of EPA damaging underground pipes.

Question #3
Are you aware of any ongoing community concerns regarding the site?

Response
Yes. Residents are disturbed by the fact that EPA failed to remove the top two feet of contaminated soil of residential property and place a liner over the entire landfill, as EPA committed to doing in it's planned response. Residents continue to suffer Health problems related to EPA's soil removal. Residents are troubled that EPA encouraged the reopening of Moton Elementary School, which threatens the health of children.

Question #4
Are you aware of any incidents at the site, such as dumping, vandalism, trespassing, or anything requiring emergency response from local authorities?

Response:

Yes. Are you aware there is massive dumping of junked vehicles and debris at Agriculture Street Landfill? The fenced in area surrounded by Almonaster, Higgins, and St. Ferdinand Streets.

Question # 5
Do you feel well informed about the status of the site?

Response:

EPA has been consistently been misleading about the soil removal action. Residents have had to investigate and find out for themselves facts about the Superfund Site. EPA's office in this neighborhood remains locked and closed.

Question #6
Do you have any comments, suggestions or recommendations regarding the site or its administration?

Response:

Permanent relocation of residents continues to be the only reasonable way to ensure that health is protected. EPA's soil removal made a bad situation worse. It is unconscionable that EPA has threatened the health and lives of African residents living on the Agriculture Street Landfill Site.

Responses Provided By:

Elodia Blanco, President
Concerned Citizens of Agriculture Street Landfill
2938 Benefit Street
New Orleans, La 70126
Home phone - 504-947-0511
Cell phone - 504-259-5448

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Five-Year Review Interview Record Agriculture Street Landfill Superfund Site New Orleans, Orleans Parish, Louisiana	**Interviewee:** Ms. Ruby Stigler Affiliation: Pres. of Press Park Homeowner's Assoc. Phone/email: 504-945-4181 Fax: 504-949-6837

Site Name	**EPA ID No.**	**Date of Interview**	**Interview Method**
Agriculture Street Landfill	LAD981056997	October 21, 2002	response by e-mail

Interview Contacts	**Organization**	**Phone**	**Email**	**Address**
Please return completed interview form to M. O'Hare at fax 972-385-5102 or the return address or email listed below.				
Ursula Lennox	EPA Region 6	214-665-6743	lennox.ursula @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Margaret O'Hare	CH2M HILL, EPA contractor	972-980-2170	mohare@ ch2m.com	12377 Merit Drive, Suite 1000 Dallas, Texas 75251
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Interview Questions

1. What is your overall impression of the soil removal action conducted at the site from 1997 through 2001?

Response: We feel as a community that the soil that was replaced have a lot of ants and the grounds are not leveled. The soil is sinking because it was not packed properly. This problem needs to be addressed.

2. From your perspective, did the soil removal action have a positive effect on the community?

Response: No, because the residents are not satisfied. They are complaining that the grounds were not properly level and when it rains water sets and causes flooding where we never had flooding.

3. Are you aware of any ongoing community concerns regarding the site?

Response: Yes, the main concerns are flooding, un-level grounds, grass not growing in places and the ants overpowering the grounds.

4. Are you aware of any incidents at the site, such as dumping, vandalism, trespassing, or anything requiring emergency response from local authorities?

Response: No, we don't have any of these cases in our area.

5. Do you feel well-informed about the site's status?

Response: No, the community would like for the grounds to be retested and meet with the residents to give the results of the new findings.

6. Do you have any comments, suggestions, or recommendations regarding the site or its administration?

Response: I would like to suggest that someone come back out to properly level the grounds - add more soil because some of the soil has washed away - the grounds have settled and have caused the un-level of the grounds and this has caused the area to flood when it rain.

Five-Year Review Interview Record Agriculture Street Landfill Superfund Site New Orleans, Orleans Parish, Louisiana	**Interviewee:** Ms. Dot Wilson Affiliation: Resident/Homeowner Phone/email: 504-949-2781

Site Name	**EPA ID No.**	**Date of Interview**	**Interview Method**
Agriculture Street Landfill	LAD981056997	October 17, 2002	in person

Interview Contacts	**Organization**	**Phone**	**Email**	**Address**
Please return completed interview form to M. O'Hare at fax 972-385-5102 or the return address or email listed below.				
Ursula Lennox	EPA Region 6	214-665-6743	lennox.ursula @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta @epa.gov	1445 Ross Ave, Suite 1200 Dallas, Texas 75202
Margaret O'Hare	CH2M HILL, EPA contractor	972-980-2170	mohare@ ch2m.com	12377 Merit Drive, Suite 1000 Dallas, Texas 75251
Bill Thomas	CH2M HILL, EPA contractor	972-980-2170	wthomas2@ ch2m.com	12377 Merit Drive, Suite 1000 Dallas, Texas 75251

Purpose of the Five-Year Review

The purpose of the five-year review is to evaluate the implementation and performance of the remedy, to confirm that human health and the environment continue to be protected by the actions performed. The five-year review for the Agriculture Street site focuses on the soil removal action performed for the residential properties, the community center, and the undeveloped property.

The removal action on the undeveloped property (OU1) involved clearing, grading, placement of orange marker mat, covering with 12 inches of clean fill, and re-establishing vegetation. The removal action on the residential (OU2) and community center (OU3) properties involved excavation of 24 inches of soil, placement of orange marker mat, backfilling with clean fill, and covering with grass sod.

Interview Questions

1. What is your overall impression of the soil removal action conducted at the site from 1997 through 2001?

Response: Removal activities went pretty good, but there was too much sand, not enough soil, too many weeds. The grass did not grow well. The project went well all in all. The Shirley Jefferson Community Center should have been rebuilt better. The center could be a money maker for the community if it was in better condition.

2. From your perspective, did the soil removal action have a positive effect on the community?

Response: Yes, but the effect would be more lasting with ongoing maintenance.

3. Are you aware of any ongoing community concerns regarding the site?

Response: Some residents still feel they will be compensated. Because of the history of the site it has been difficult for some residents to obtain loans for property improvements. It is particularly difficult for people on fixed incomes. There is concern over the status of the undeveloped property. The owner is absent. The property is overgrown and needs to be better maintained. Illegal dumping occurs on the undeveloped property and the areas next to it. The community would like to see the property re-zoned. It could then be put to use benefitting the community.

4. Are you aware of any incidents at the site, such as dumping, vandalism, trespassing, or anything requiring emergency response from local authorities?

Response: There have been many incidents of the above, some requiring response from the local authorities.

5. Do you feel well-informed about the site's status?

Response: Yes, we have been well informed. EPA has done a pretty good job, but would like more done about ownership of the undeveloped property.

6. Do you have any comments, suggestions, or recommendations regarding the site or its administration?

Response: The new City administration may provide impetus or direction regarding the condition of the undeveloped property. The community needs assistance to resolve issues related to the undeveloped property (re-zoning, maintenance, etc). The community currently has a negative perception of EPA. EPA needs to do more to increase community awareness of EPA's efforts.

Attachment 3

Site Inspection Checklist

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Agriculture Street Landfill, New Orleans, Louisiana
Five-Year Review Site Inspection Checklist

Please note that "O&M" is referred to throughout this checklist. At sites where Long-Term Response Actions are in progress, O&M activities may be referred to as "system operations" since these sites are not considered to be in the O&M phase while being remediated under the Superfund program. N/A means "not applicable."

I. SITE INFORMATION	
Site Name: Agriculture Street Landfill	**EPA ID:** LAD981056997
City/State: New Orleans, Orleans Parish, Louisiana	**Date of Inspection:** October 17, 2002
Agency Completing 5 Year Review: EPA	**Weather/temperature:** partly cloudy/ mid 70s
Remedy Includes: (Check all that apply) ■ Landfill cover/containment □ Access controls □ Institutional controls □ Groundwater pump and treatment □ Surface water collection and treatment □ Other: Radon barrier placed over tailings piles	
Attachments: □ Inspection team roster attached	□ Site map attached
II. INTERVIEWS (Check all that apply)	
1. O&M site manager: Name: n/a Title: Date: Interviewed: □ at site □ at office □ by phone Phone Number: Problems, suggestions: □ Additional report attached (if additional space required).	
2. O&M staff: Name: n/a Title: Date: Interviewed: □ at site □ at office □ by phone Phone Number: Problems, suggestions: □ Additional report attached (if additional space required).	

3. Local regulatory authorities and response agencies (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency: US Environmental Protection Agency
Contact:
Name: Ursula Lennox
Title: Remedial Project Manager
Date: 10-17-2002
Phone Number: 214-665-6743
Problems, suggestions: ☐ Additional report attached (if additional space required).

Agency: Louisiana Department of Environmental Quality
Contact:
Name: Mr. William Perry
Title: Environmental Scientist Supervisor
Date: 10-17-2002
Phone Number: 225-765-0461
Problems, suggestions: ■ Additional report attached (if additional space required).

Agency: US Army Corps of Engineers
Contact:
Name: Jim Montegut
Title:
Date: 10-23-2002
Phone Number:
Problems, suggestions: ☐ Additional report attached (if additional space required).

Agency:
Contact:
Name:
Title:
Date:
Phone Number:
Problems, suggestions: ☐ Additional report attached (if additional space required).

4. Other interviews (optional) ☐ N/A ■ Additional report attached (if additional space required).

Interview Record Forms are provided in Attachment 2 to the Five-Year Review Report.

III. ONSITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)			
1. O&M Documents			
■ O&M Manuals	■ Readily available	▫ Up to date	▫ N/A
▫ As-Built Drawings	▫ Readily available	▫ Up to date	▫ N/A
▫ Maintenance Logs	▫ Readily available	▫ Up to date	▫ N/A
Remarks: Documents are available at the Community Outreach Office			
2. Health and Safety Plan Documents			
▫ Site-Specific Health and Safety Plan	▫ Readily available	▫ Up to date	■ N/A
▫ Contingency plan/emergency response plan	▫ Readily available	▫ Up to date	■ N/A
Remarks:			
3. O&M and OSHA Training Records	▫ Readily available	▫ Up to date	■ N/A
Remarks:			
4. Permits and Service Agreements			
▫ Air discharge permit	▫ Readily available	▫ Up to date	■ N/A
▫ Effluent discharge	▫ Readily available	▫ Up to date	■ N/A
▫ Waste disposal, POTW	▫ Readily available	▫ Up to date	■ N/A
▫ Other permits	▫ Readily available	▫ Up to date	■ N/A
Remarks:			
5. Gas Generation Records	▫ Readily available	▫ Up to date	■ N/A
Remarks:			
6. Settlement Monument Records	▫ Readily available	▫ Up to date	■ N/A
Remarks:			
7. Groundwater Monitoring Records	▫ Readily available	▫ Up to date	■ N/A
Remarks:			
8. Leachate Extraction Records	▫ Readily available	▫ Up to date	■ N/A
Remarks:			
9. Discharge Compliance Records	▫ Readily available	▫ Up to date	■ N/A
Remarks:			
10. Daily Access/Security Logs	▫ Readily available	▫ Up to date	■ N/A
Remarks:			

IV. O&M Costs ☐ Applicable ■ N/A

1. O&M Organization

☐ State in-house ☐ Contractor for State
☐ PRP in-house ☐ Contractor for PRP
☐ Other:

2. O&M Cost Records

☐ Readily available ☐ Up to date ☐ Funding mechanism/agreement in place
Original O&M cost estimate: ☐ Breakdown attached

Total annual cost by year for review period if available

From (Date):	To (Date):	Total cost:	☐ Breakdown attached
From (Date):	To (Date):	Total cost:	☐ Breakdown attached
From (Date):	To (Date):	Total cost:	☐ Breakdown attached
From (Date):	To (Date):	Total cost:	☐ Breakdown attached
From (Date):	To (Date):	Total cost:	☐ Breakdown attached

3. Unanticipated or Unusually High O&M Costs During Review Period ■ N/A
Describe costs and reasons:

V. ACCESS AND INSTITUTIONAL CONTROLS ☐ Applicable ☐ N/A

A. Fencing

1. Fencing damaged ☐ Location shown on site map ■ Gates secured ☐ N/A
Remarks: The east perimeter fence had been breached near the intersection of St Ferdinand Street and Benefit Street. A locked gate had been forced open to allow unauthorized access to OU1.

B. Other Access Restrictions

1. Signs and other security measures ☐ Location shown on site map ■ N/A
Remarks:

C. Institutional Controls

1. Implementation and enforcement

Site conditions imply ICs not properly implemented: ☐ Yes ☐ No ■ N/A
Site conditions imply ICs not being fully enforced: ☐ Yes ☐ No ■ N/A
Type of monitoring (e.g, self-reporting, drive by):
Frequency:
Responsible party/agency:
Contact:
Name:
Title:
Date:
Phone Number:
Reporting is up-to-date: ☐ Yes ☐ No ■ N/A
Reports are verified by the lead agency: ☐ Yes ☐ No ■ N/A
Specific requirements in deed or decision documents have been met: ☐ Yes ☐ No ■ N/A
Violations have been reported: ☐ Yes ☐ No ■ N/A
Other problems or suggestions: ☐ Additional report attached (if additional space required).

2. Adequacy ☐ ICs are adequate ☐ ICs are inadequate ■ N/A
Remarks:

D. General

1. Vandalism/trespassing ☐ Location shown on site map ☐ No vandalism evident
Remarks: There have been numerous incidents of vandalism at the site. There is evidence that the fence surrounding the undeveloped area has been breached and trespass has occurred. Fence is overgrown with vegetation.

2. Land use changes onsite ■ N/A
Remarks:

3. Land use changes offsite ■ N/A
Remarks:

VI. GENERAL SITE CONDITIONS

A. Roads ■ Applicable ☐ N/A

1. Roads damaged ☐ Location shown on site map ■ Roads adequate ☐ N/A
Remarks:

B. Other Site Conditions

Remarks: OU1- Most of OU1 has moderate to heavy vegetative growth. Surface soil is rutted at some locations. Several piles of discarded tires present near stored vehicles.

VII. LANDFILL COVERS ■ Applicable □ N/A

A. Landfill Surface

1. Settlement (Low spots) □ Location shown on site map □ Settlement not evident
Areal extent: Depth:
Remarks: Some low areas were observed on the undeveloped portion (OU1).

2. Cracks □ Location shown on site map ■ Cracking not evident
Lengths: Widths: Depths:
Remarks:

3. Erosion □ Location shown on site map ■ Erosion not evident
Areal extent: Depth:
Remarks:

4. Holes □ Location shown on site map ■ Holes not evident
Areal extent: Depth:
Remarks:

5. Vegetative Cover
□ Cover properly established □ No signs of stress ■ Grass ■ Trees/Shrubs
Remarks: Portions of OU1 were heavily vegetated. Small trees and shrubs were present. (See site photographs.)

6. Alternative Cover (armored rock, concrete, etc.) ■ N/A
Remarks:

7. Bulges □ Location shown on site map ■ Bulges not evident
Areal extent: Height:
Remarks:

8. Wet Areas/Water Damage □ Wet areas/water damage not evident
□ Wet areas □ Location shown on site map Areal extent:
□ Ponding □ Location shown on site map Areal extent:
□ Seeps □ Location shown on site map Areal extent:
□ Soft subgrade □ Location shown on site map Areal extent:
Remarks: The southern portion of OU1 had areas of shallow standing water, possibly attributable to recent rainfall.

9.	**Slope Instability** Areal extent: Remarks:	☐ Slides	☐ Location shown on site map ■ No evidence of slope instability
B.	**Benches** (Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)		☐ Applicable ■ N/A
1.	**Flows Bypass Bench** Remarks:	☐ Location shown on site map	☐ N/A or okay
2.	**Bench Breached** Remarks:	☐ Location shown on site map	☐ N/A or okay
3.	**Bench Overtopped** Remarks:	☐ Location shown on site map	☐ N/A or okay
C.	**Letdown Channels** (Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)		☐ Applicable ■ N/A
1.	**Settlement** Areal extent: Remarks:	☐ Location shown on site map Depth:	☐ No evidence of settlement
2.	**Material Degradation** Material type: Remarks:	☐ Location shown on site map Areal extent:	☐ No evidence of degradation
3.	**Erosion** Areal extent: Remarks:	☐ Location shown on site map Depth:	☐ No evidence of erosion
4.	**Undercutting** Areal extent: Remarks:	☐ Location shown on site map Depth:	☐ No evidence of undercutting
5.	**Obstructions** Type: Areal extent: Remarks:	☐ Location shown on site map Height:	☐ N/A

6. Excessive Vegetative Growth ☐ No evidence of excessive growth
■ Evidence of excessive growth ☐ Vegetation in channels but does not obstruct flow
☐ Location shown on site map Areal extent:
Remarks: Some areas of OU1 have heavy vegetative growth. (See site photographs.) Security fence is overgown.

D. Cover Penetrations ☐ Applicable ■ N/A

1. Gas Vents ☐ N/A
☐ Active ☐ Passive ☐ Routinely sampled
☐ Properly secured/locked ☐ Functioning ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs O& M
Remarks:

2. Gas Monitoring Probes ☐ N/A
☐ Routinely sampled
☐ Properly secured/locked ☐ Functioning ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs O&M
Remarks:

3. Monitoring Wells (within surface area of landfill) ☐ N/A
☐ Routinely sampled
☐ Properly secured/locked ☐ Functioning ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs O&M
Remarks:

4. Leachate Extraction Wells ☐ N/A
☐ Routinely sampled
☐ Properly secured/locked ☐ Functioning ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs O&M
Remarks:

5. Settlement Monuments ☐ Located ☐ Routinely surveyed ☐ N/A
Remarks:

E. Gas Collection and Treatment ☐ Applicable ■ N/A

1. Gas Treatment Facilities ☐ N/A
☐ Flaring ☐ Thermal destruction ☐ Collection for reuse
☐ Good condition ☐ Needs O& M
Remarks:

2.	**Gas Collection Wells, Manifolds and Piping** ☐ Good condition ☐ Needs O& M Remarks:			☐ N/A
3.	**Gas Monitoring Facilities** (e.g., gas monitoring of adjacent homes or buildings) ☐ Good condition ☐ Needs O& M Remarks:			☐ N/A
F.	**Cover Drainage Layer**		☐ Applicable	■ N/A
1.	**Outlet Pipes Inspected** Remarks:	☐ Functioning		☐ N/A
2.	**Outlet Rock Inspected** Remarks:	☐ Functioning		☐ N/A
G.	**Detention/Sedimentation Ponds**		☐ Applicable	■ N/A
1.	**Siltation** Areal extent: Depth: Remarks:	☐ Siltation evident		☐ N/A
2.	**Erosion** Areal extent: Depth: Remarks:	☐ Erosion evident		☐ N/A
3.	**Outlet Works** Remarks:	☐ Functioning		☐ N/A
4.	**Dam** Remarks:	☐ Functioning		☐ N/A
H.	**Retaining Walls**		☐ Applicable	■ N/A
1.	**Deformations** Horizontal displacement: Vertical displacement: Rotational displacement: Remarks:	☐ Location shown on site map	☐ Deformation not evident	
2.	**Degradation** Remarks:	☐ Location shown on site map	☐ Degradation not evident	

I.	**Perimeter Ditches/Off-site discharge**	■ Applicable	☐ N/A
1.	**Siltation** Areal extent: Remarks:	☐ Location shown on site map Depth:	■ Siltation not evident
2.	**Vegetative Growth** Areal extent: Remarks:	☐ Location shown on site map Type:	■ Vegetation does not impede flow
3.	**Erosion** Areal extent: Remarks:	☐ Location shown on site map Depth:	■ Erosion not evident
4.	**Discharge Structure** ☐ Functioning Remarks:	☐ Location shown on site map ☐ Good Condition	■ N/A
	VIII. VERTICAL BARRIER WALLS	☐ Applicable	■ N/A
1.	**Settlement** Areal extent: Remarks:	☐ Location shown on site map Depth:	☐ Settlement not evident
2.	**Performance Monitoring** ☐ Performance not monitored ☐ Performance monitored ☐ Evidence of breaching Remarks:	Frequency: Head differential:	☐ N/A
	IX. GROUNDWATER/SURFACE WATER REMEDIES	☐ Applicable	■ N/A
A.	**Groundwater Extraction Wells, Pumps, and Pipelines**	☐ Applicable	☐ N/A
1.	**Pumps, Wellhead Plumbing, and Electrical** ☐ All required wells located Remarks:	☐ Good condition ☐ Needs O& M	☐ N/A
2.	**Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances** ☐ System located Remarks:	☐ Good condition ☐ Needs O& M	☐ N/A

3. Spare Parts and Equipment ☐ N/A
☐ Readily available ☐ Good condition
☐ Requires Upgrade ☐ Needs to be provided
Remarks:

B. Surface Water Collection Structures, Pumps, and Pipelines ☐ Applicable ■ N/A

1. Collection Structures, Pumps, and Electrical ☐ N/A
☐ Good condition ☐ Needs O& M
Remarks:

2. Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances ☐ N/A
☐ Good condition ☐ Needs O& M
Remarks:

3. Spare Parts and Equipment ☐ N/A
☐ Readily available ☐ Good condition
☐ Requires Upgrade ☐ Needs to be provided
Remarks:

C. Treatment System ☐ Applicable ■ N/A

1. Treatment Train (Check components that apply)
☐ Metals removal ☐ Oil/water separation ☐ Bioremediation
☐ Air stripping ☐ Carbon adsorbers ☐ Filters (list type):
☐ Additive (list type, e.g., chelation agent, flocculent)
☐ Others (list): Reverse Osmosis Plant
☐ Good condition ☐ Needs O&M
☐ Sampling ports properly marked and functional
☐ Sampling/maintenance log displayed and up to date
☐ Equipment properly identified
☐ Quantity of groundwater treated annually (list volume):
☐ Quantity of surface water treated annually (list volume):
Remarks:

2. Electrical Enclosures and Panels (properly rated and functional) ☐ N/A
☐ Good condition ☐ Needs O& M
Remarks:

3. Tanks, Vaults, Storage Vessels ☐ N/A
☐ Good condition ☐ Proper secondary containment ☐ Needs O&M
Remarks:

4.	**Discharge Structure and Appurtenances** ☐ Good condition ☐ Needs O& M Remarks:				☐ N/A
5.	**Treatment Building(s)** ☐ Good condition (esp. roof and doorways) ☐ Needs Repair ☐ Chemicals and equipment properly stored Remarks:				☐ N/A
6.	**Monitoring Wells (pump and treatment remedy)** ☐ All required wells located ☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition ☐ Needs O&M Remarks:				☐ N/A
D.	**Monitored Natural Attenuation**			☐ Applicable	■ N/A
1.	**Monitoring Wells** (natural attenuation remedy) ☐ All required wells located ☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition ☐ Needs O&M Remarks:				☐ N/A
	X. OTHER REMEDIES			☐ Applicable	☐ N/A
N/A					

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.)

As stated in the ROD, no further actions were required for the site after completion of the removal actions.

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

Property owners are responsible for maintenance of the cap and vegetative cover. Heavy vegetative cover on sections of OU1 obscure the cap surface and vehicle ruts were observed in the cover.

C. Early Indicators of Potential Remedy Failure

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future.

The surface soil on OU1 is rutted (approximately six inches deep) near stored vehicles. The geotextile barrier does not appear to have been intersected.

D. Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

Not applicable.

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Attachment 4

Site Inspection Photographs

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Photo 1: Looking north along St. Ferdinand Street. The undeveloped area (OU1) is on the left. The Gordon Plaza Subdivision (part of OU2) is on the right.

Photo 2: Looking west towards OU1 from the corner of St. Ferdinand Street. and Abundance Street.

Photo 3: Looking west along Industry Street towards the Almonaster Boulevard overpass. OU1 is on the left and in the background. OU2 is on the right.

Photo 4: Looking south towards OU1. The security fence, overgrown with vegetation, is in the center of the photograph.

Photo 5: Looking east along Industry Street. Southern portion of OU1 is to the right.

Photo 6: Looking north along Press Street. Moton School (OU4) is in the right center of the photograph. Photograph 6 of 45

Photo 7: Looking east from the Almonaster Boulevard overpass towards the south portion of OU1.

Photo 8: Looking northeast, from the Almonaster Boulevard overpass, across OU1. Moton School (OU4) is in the center of the photograph.

Photo 9: Looking east through the security fence at vehicles stored on OU1.

Photo 10: Looking east through the security fence at vehicles stored on OU1.

Photo 11: Looking east through the security fence at OU1.

Photo 12: OU2 - Looking south along Gordon Plaza Drive.

Photo 13: OU2 - Looking south along Press Street.

Photo 14: OU3 - Looking east towards the playground at the community center.

Photo 15: Looking northeast towards the Shirley Jefferson Community Center (OU3).

Photo 16: Looking north to the intersection of Benefit Street and Press Street. The Shirley Jefferson Community Center is at the right center of the photograph.

Photo 17: OU2 - Looking west towards Vision Drive from the parking lot of the Shirley Jefferson Community Center.

Photo 18: OU2 - Looking southwest towards the Gordon Plaza Subdivision.

Photo 19: Looking east across the southern portion of OU1.

Photo 20: Looking west across the southern portion of OU1, towards the Almonaster Blvd.overpass.

Photo 21: Looking west across the southern portion of OU1, towards the Almonaster Street overpass.

Photo 22: Southern portion of OU1 - Fire ant mound covered with bermuda grass.

Photo 23: Looking west across the southern portion of OU1. Note the heavy vegetative cover.

Photo 24: Looking north across the southern portion of OU1.

Photo 25: Looking south on St. Ferdinand Street towards the southern portion of OU1. Abundance Street is in the left center of the photograph.

Photo 26: On OU1, looking west towards a breach in the security fence. Cars are parked on St Ferdinand Street near the intersection with Benefit Street.

Photo 27: Looking north at a pile of used tires on OU1.

Photo 28: Open buckets identified as having contained hydraulic oil.

Photo 29: Open bucket on OU1, identified as having contained hydraulic oil.

Photo 30: Stained soil near the north end of OU1.

Photo 31: Looking north at tire ruts on the north end of OU1

Photo 32: Stored vehicles on OU1.

Photo 33: Tire ruts in surface of OU1 near the stored vehicles.

Photo 34: Tire rut in surface of OU1 near the stored vehicles.

Photo 35: Looking towards the northwest corner of OU1. Note pile of used tires and heavy vegetative cover.

Photo 36: Looking east across the north end of OU1.

Photo 37: Looking west at heavy vegetative growth on OU1. Substation in background is located on the west side of Almonaster Boulevard.

Photo 38: Looking west at heavy vegetation on OU1. Substation is west of OU1, across Almonaster Boulevard.

Photo 39: Looking south along the west side of OU1. Note heavy vegetative cover and overgrown fence..

Photo 40: Looking west at gate and fence on OU1, and substation across Almonaster Boulevard. Graveled drive was used for entry to the command center area for response activities.

Photo 41: On north end of OU1, looking east towards staging area for response activities.

Photo 42: On OU1, looking northeast across the response action staging area.

Photo 43: Looking east across the north portion of OU1. Previously documented pile of used tires is in the center of the photograph.

Photo 44: Looking south across OU1. The building located in the right center of the photograph was reportedly part of the former onsite incinerator facility.

Photo 45: OU2 - Looking north along St. Ferdinand Boulevard. The Gordon Plaza Apartments are on the right of the photograph.

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Attachment 5

Notices to the Public Regarding the Five-Year Review

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AGRICULTURE STREET LANDFILL SUPERFUND SITE PUBLIC NOTICE
U.S. EPA Region 6 Begins Five-Year Review of Site Remedy

The U.S. Environmental Protection Agency Region 6 (EPA) has begun a Five-Year Review of the remedy for the Agriculture Street Landfill Site. The review will evaluate the soil removal action conducted at the site to correct contamination problems and protect public health and the environment. The site is located within the eastern city limits of New Orleans, Orleans Parish, Louisiana, approximately 3 miles south of Lake Pontchartrain and 3 miles north-northeast of the city's central business district.

Once completed, the results of the Five-Year Review will be made available to the public at the following information repository:

EPA Community Outreach Office
3221 Press Street
New Orleans, Louisiana 70126

Information about the Agriculture Street Landfill Site also is available on the Internet at www.epa.gov/earth1r6/6sf.

Questions or concerns about the Agriculture Street Landfill Site should be directed to Ursula Lennox/Remedial Project Manager at (214) 665-6743 or Janetta Coats/Community Involvement Coordinator at (214) 665-7308 or 1-800-533-3508 toll-free.

CONFIRMED PUBLICATION in the New Orleans Times-Picayune October 3, 2002
CH2M HILL/Bernard Hodes
972-980-2170, ext 238 or 234

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AGRICULTURE STREET LANDFILL SUPERFUND SITE PUBLIC NOTICE
U.S. EPA Region 6 Completes First Five-Year Review of Site Remedy

The U.S. Environmental Protection Agency Region 6 (EPA) has completed the first Five-Year Review of the remedy for the Agriculture Street Landfill Site. The site is located within the eastern city limits of New Orleans, Orleans Parish, Louisiana, approximately 3 miles south of Lake Pontchartrain and 3 miles north-northeast of the city's central business district.The review evaluated the soil removal action conducted at the site to correct contamination problems and protect public health and the environment.

Results of the Five-Year Review

The results of the Five-Year Review indicate that the remedy remains protective of human health and the environment. The Five-Year Review Report is available for review at Norman Mayer Gentilly Branch Library, 2098 Foy Street, New Orleans, Louisiana, (504) 596-2644. For more information about the Agriculture Street Landfill site go to: http://www.epa.gov/earth1r6/6sf/.

Questions or concerns about the Agriculture Street Landfill Site should be directed to Ursula Lennox/Remedial Project Manager at (214) 665-6743 or Janetta Coats/Community Involvement Coordinator at (214) 665-7308 or 1-800-533-3508 toll-free.

For publication in New Orleans Times-Picayune
CH2M HILL/Bernard Hodes
972-980-2170, ext 238 or 234

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Attachment 6

Closeout Letters For OU Property Owners

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

[CLOSEOUT LETTER FOR OUT PROPERTY OWNERS]

[date]

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: Agriculture Street Landfill Superfund Site: Completion of an environmental response action at property located at: []

Dear :

The U.S. Environmental Protection Agency (EPA) recently completed the Non-Time Critical Soil Removal Action ("Soil Removal Action" or "Action"), an environmental response action authorized by Action Memorandum issued Sept. 2, 1997, on properties within Operable Unit No. 1 of the Agriculture Street Landfill Site. The Action was implemented to remove the potential threat to human health and the environment presented by landfill contaminants, particularly lead, arsenic, and polynuclear aromatic hydrocarbons in surface soil.

Completion of the Removal Action

As authorized in the Action Memorandum of Sept. 2, 1997, the following Soil Removal Action was accomplished on the undeveloped property:

1. Clearing and grubbing
2. Grading and contouring to control surface water runoff
3. Placement of Geotextile
4. Capping with 12" of clean soil
5. Revegetation

These actions have now been completed, satisfying the following removal action objectives: to prevent direct and indirect contact, ingestion, and inhalation of soil and wastes contaminated with contaminants of potential concern (COPCs) by human and ecological receptors that could pose unacceptable risks; to prevent the release of COPC-contaminated dust to the air at concentrations that could adversely affect human health and the environment; and to leave the site in a condition that will permit future beneficial use. The Soil Removal Action provides a permanent barrier to prevent further actual or potential exposure of residents to the contaminants

T-1

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of concern at the Site. A Certificate of Completion is attached. Also attached are instructions for post-removal maintenance.

A description of the Site, the nature and extent of environmental contamination identified, and the environmental response action selected can be found in the EPA Action Memorandum for the Site dated Sept. 2, 1997. Copies of documents containing information about the site are publicly available for viewing and copying locally at EPA's Community Outreach Office located at 3221 Press Street, New Orleans, La. 70126 and at the following repositories:

Louisiana Department of Environmental Quality 7290 Bluebonnet Blvd. Baton Rouge, LA 70810	and	U.S. EPA 1445 Ross Ave. Dallas, TX 75202

EPA has consulted with the Agency for Toxic Substances and Disease Registry (ATSDR), from the inception of this project to ensure that public health was protected during the implementation of this action and after its conclusion. We are pleased to report that ATSDR concurs with the response action that has been implemented and finds it sufficient to protect public health and the environment.

Should you have any remaining questions or concerns on this effort, please contact Mrs. Janetta Coats, the Community Involvement Coordinator at EPA's Toll-Free number at 1-800-533-3508.

Respectfully,

Ragan Broyles, Acting Chief
Louisiana/New Mexico Branch

Encl.

ATTACHMENT 1

CERTIFICATE OF COMPLETION

Completion of Environmental Response Action
Agriculture Street Landfill Superfund Site
New Orleans, La.

All cleanup actions and other response measures identified in the Action Memorandum of September 2, 1997, to be conducted on Operable Unit No. 1 of the Agriculture Street Landfill Site have been successfully implemented on the property listed above. The response measures have been completed in accordance with the Action Memorandum, and the Statement of Work, Design documents, and workplans, formulated to implement the Action Memorandum. The constructed action is operational and performing according to engineering design specifications. Operation and maintenance activities, including maintenance of the cap and vegetative cover, should be continued by the property owner.

Signed this __ day of _____, 2000.

Lon Biasco
EPA On-Scene Coordinator

ATTACHMENT 2

POST-REMOVAL MAINTENANCE

Post-closure care of the clean soil cap and vegetative cover consists of routine activities to maintain the integrity of the soil cap and vegetation on your property. Surface maintenance includes simple measures such as filling in holes above the geotextile barrier with clean soil and continued cultivation of the grass, shrubbery, trees, and other landscape features to assure a healthy vegetative cover over the clean fill.

If excavation below the geotextile fabric is required, the procedures for excavation and restoration outlined in the "Technical Abstract Utilities" paper dated July 1998 (available in the EPA Outreach Office), should be followed. In general:

1) Clean soils excavated within the top two feet of the excavation (above the geotextile) may be set aside and used as backfill in the same area.

2) The geotextile is to be cut to provide access below the barrier.

3) Soil excavated from below the barrier is considered to be contaminated landfill material and should be placed on a plastic sheet (away from the clean soil), to avoid contact with the surface soil. Also, proper personal protective equipment (i.e. coveralls, gloves, etc.) may be required to accomplish the work.

4) After completing the work, the excavated soil (from below the barrier) may be placed back into the excavation below the barrier as backfill.

5) After completion of the backfill below the matted area, the geotextile and marker are to be restored, and the excavation equipment cleaned.

6) The soils excavated from the top two feet (or clean fill from another source) can be used as backfill above the geotextile barrier. The area should be re-vegetated and maintained, to off-set the erosion of clean backfill.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

[CLOSEOUT LETTER FOR OU2 PROPERTY OWNERS]

[date]

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: Agriculture Street Landfill Superfund Site: Completion of an environmental response action at property located at: []

Dear :

The U.S. Environmental Protection Agency (EPA) recently completed the Non-Time Critical Soil Removal Action ("Soil Removal Action" or "Action"), an environmental response action authorized by Action Memorandum issued Sept. 2, 1997, on properties to which access was granted within Operable Unit No. 2 of the Agriculture Street Landfill Site, including the property located at []. The Action was implemented to remove the potential threat to human health and the environment presented by landfill contaminants, particularly lead, arsenic, and polynuclear aromatic hydrocarbons in surface soil. This action was selected and implemented based on the assumption that the property will continue to be used for residential purposes.

The "Resident Action Guide" which EPA distributed to community residents in April, 1998, states that the property owner will be given information on measures to apply to maintain the effectiveness of the soil removal action, and will be issued a Work Completion Certificate. This letter will provide you with both of these items.

Completion of the Removal Action

EPA has successfully completed the Soil Removal Action, including all of the actions specified for residential properties on OU2 authorized by the Sept. 2, 1997 Action Memorandum, on the property listed above. As authorized in the Action Memorandum of Sept. 2, 1997 and described in the "Resident Action Guide", the Soil Removal Action was accomplished in six steps for the residential properties and the community center. They were:

1. Property Preparation
2. Driveway and Sidewalk Removal (as necessary)
3. Excavation, Placement of Geotextile, and Soil Replacement

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4. Landscaping and Yard Restoration
5. Driveway and Sidewalk Replacement, and
6. Final Detailing.

These actions have now been completed, satisfying the following removal action objectives: to prevent direct and indirect contact, ingestion, and inhalation of soil and wastes contaminated with contaminants of potential concern (COPCs) by human and ecological receptors that could pose unacceptable risks; to prevent the release of COPC-contaminated dust to the air at concentrations that could adversely affect human health and the environment; and to leave the site in a condition that will permit future beneficial use. The Soil Removal Action provides a permanent barrier to prevent further actual or potential exposure of residents to the contaminants of concern at the Site. A Certificate of Completion is attached. Also attached are instructions for post-removal maintenance.

A description of the Site, the nature and extent of environmental contamination identified, and the environmental response action selected can be found in the EPA Action Memorandum for the Site dated Sept. 2, 1997. Copies of documents containing information about the site are publicly available for viewing and copying locally at EPA's Community Outreach Office located at 3221 Press Street, New Orleans, La. 70126 and at the following repositories:

Louisiana Department of Environmental Quality 7290 Bluebonnet Blvd. Baton Rouge, LA 70810	and	U.S. EPA 1445 Ross Ave. Dallas, TX 75202

EPA has consulted with the Agency for Toxic Substances and Disease Registry (ATSDR), from the inception of this project to ensure that public health was protected during the implementation of this action and after its conclusion. We are pleased to report that ATSDR concurs with the response action that has been implemented and finds it sufficient to protect public health and the environment.

In closing, the EPA Region 6 team members extend a heartfelt appreciation to you and your family for your time, patience, and participation in this beneficial action. Your participation has established a healthier environment within which you and your family reside. Should you have any remaining questions or concerns on this effort, please contact Mrs. Janetta Coats, the Community Involvement Coordinator at EPA's Toll-Free number at 1-800-533-3508.

Respectfully,

Ragan Broyles, Acting Chief
Louisiana/New Mexico Branch

Encl.

T-6

ATTACHMENT I

CERTIFICATE OF COMPLETION

Completion of Environmental Response Action
Agriculture Street Landfill Superfund Site
New Orleans, La.

All cleanup actions and other response measures identified in the Action Memorandum of September 2, 1997, to be conducted on Operable Unit No. 2 of the Agriculture Street Landfill Site have been successfully implemented on the property listed above. The response measures have been completed in accordance with the Action Memorandum, and the Statement of Work, Design documents, and workplans, formulated to implement the Action Memorandum. The constructed action is operational and performing according to engineering design specifications. Operation and maintenance activities, including maintenance of the cap and vegetative cover, should be continued by the property owner.

Signed this __ day of _____, 2000.

Lon Biasco
EPA On-Scene Coordinator

ATTACHMENT 2

POST-REMOVAL MAINTENANCE

Post-closure care of the clean soil cap and vegetative cover consists of routine activities to maintain the integrity of the soil cap and vegetation on your property. Surface maintenance includes simple measures such as filling in holes above the geotextile barrier with clean soil and continued cultivation of the grass, shrubbery, trees, and other landscape features to assure a healthy vegetative cover over the clean fill.

If excavation below the geotextile fabric is required, the procedures for excavation and restoration outlined in the "Technical Abstract Utilities" paper dated July 1998 (available in the EPA Outreach Office), should be followed. In general:

1) Clean soils excavated within the top two feet of the excavation (above the geotextile) may be set aside and used as backfill in the same area.

2) The geotextile is to be cut to provide access below the barrier.

3) Soil excavated from below the barrier is considered to be contaminated landfill material and should be placed on a plastic sheet (away from the clean soil), to avoid contact with the surface soil. Also, proper personal protective equipment (i.e. coveralls, gloves, etc.) may be required to accomplish the work.

4) After completing the work, the excavated soil (from below the barrier) may be placed back into the excavation below the barrier as backfill.

5) After completion of the backfill below the matted area, the geotextile and marker are to be restored, and the excavation equipment cleaned.

6) The soils excavated from the top two feet (or clean fill from another source) can be used as backfill above the geotextile barrier. The area should be re-vegetated and maintained, to off-set the erosion of clean backfill.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

[CLOSEOUT LETTER FOR OU3 PROPERTY OWNER]

[date]

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: Agriculture Street Landfill Superfund Site: Completion of an environmental response action at property located at: []

Dear :

The U.S. Environmental Protection Agency (EPA) recently completed the Non-Time Critical Soil Removal Action ("Soil Removal Action" or "Action"), an environmental response action authorized by Action Memorandum issued Sept. 2, 1997, on the Shirley Jefferson Community Center (formerly known as the Press Park Community Center) and associated properties within Operable Unit No. 3 of the Agriculture Street Landfill Site. The Action was implemented to remove the potential threat to human health and the environment presented by landfill contaminants, particularly lead, arsenic, and polynuclear aromatic hydrocarbons in surface soil.

The "Resident Action Guide" which EPA distributed to community residents in April, 1998, states that the property owner will be given information on measures to apply to maintain the effectiveness of the soil removal action, and will be issued a Work Completion Certificate. This letter will provide you with both of these items.

Completion of the Removal Action

EPA has successfully completed the Soil Removal Action, including all of the actions specified for properties on OU3 authorized by the Sept. 2, 1997 Action Memorandum, on the property listed above. As authorized in the Action Memorandum of Sept. 2, 1997 and described in the "Resident Action Guide", the Soil Removal Action was accomplished in six steps for the residential properties and the community center. They were:

1. Property Preparation
2. Driveway and Sidewalk Removal (as necessary)
3. Excavation, Placement of Geotextile, and Soil Replacement

T-9

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4. Landscaping and Yard Restoration
5. Driveway and Sidewalk Replacement, and
6. Final Detailing.

These actions have now been completed, satisfying the following removal action objectives: to prevent direct and indirect contact, ingestion, and inhalation of soil and wastes contaminated with contaminants of potential concern (COPCs) by human and ecological receptors that could pose unacceptable risks; to prevent the release of COPC-contaminated dust to the air at concentrations that could adversely affect human health and the environment; and to leave the site in a condition that will permit future beneficial use. The Soil Removal Action provides a permanent barrier to prevent further actual or potential exposure of residents to the contaminants of concern at the Site. A Certificate of Completion is attached. Also attached are instructions for post-removal maintenance.

A description of the Site, the nature and extent of environmental contamination identified, and the environmental response action selected can be found in the EPA Action Memorandum for the Site dated Sept. 2, 1997. Copies of documents containing information about the site are publicly available for viewing and copying locally at EPA's Community Outreach Office located at 3221 Press Street, New Orleans, La. 70126 and at the following repositories:

Louisiana Department of Environmental Quality 7290 Bluebonnet Blvd. Baton Rouge, LA 70810	and	U.S. EPA 1445 Ross Ave. Dallas, TX 75202

EPA has consulted with the Agency for Toxic Substances and Disease Registry (ATSDR), from the inception of this project to ensure that public health was protected during the implementation of this action and after its conclusion. We are pleased to report that ATSDR concurs with the response action that has been implemented and finds it sufficient to protect public health and the environment.

Should you have any remaining questions or concerns on this effort, please contact Mrs. Janetta Coats, the Community Involvement Coordinator at EPA's Toll-Free number at 1-800-533-3508.

Respectfully,

Ragan Broyles, Acting Chief
Louisiana/New Mexico Branch

Encl.

T-10

ATTACHMENT 1

CERTIFICATE OF COMPLETION

Completion of Environmental Response Action
Agriculture Street Landfill Superfund Site
New Orleans, La.

All cleanup actions and other response measures identified in the Action Memorandum of September 2, 1997, to be conducted on Operable Unit No. 2 of the Agriculture Street Landfill Site have been successfully implemented on the property listed above. The response measures have been completed in accordance with the Action Memorandum, and the Statement of Work, Design documents, and workplans, formulated to implement the Action Memorandum. The constructed action is operational and performing according to engineering design specifications. Operation and maintenance activities, including maintenance of the cap and vegetative cover, should be continued by the property owner.

Signed this __ day of _____, 1999.

Lon Biasco
EPA On-Scene Coordinator

ATTACHMENT 2

POST-REMOVAL MAINTENANCE

Post-closure care of the clean soil cap and vegetative cover consists of routine activities to maintain the integrity of the soil cap and vegetation on your property. Surface maintenance includes simple measures such as filling in holes above the geotextile barrier with clean soil and continued cultivation of the grass, shrubbery, trees, and other landscape features to assure a healthy vegetative cover over the clean fill.

If excavation below the geotextile fabric is required, the procedures for excavation and restoration outlined in the "Technical Abstract Utilities" paper dated July 1998 (available in the EPA Outreach Office), should be followed. In general:

1) Clean soils excavated within the top two feet of the excavation (above the geotextile) may be set aside and used as backfill in the same area.

2) The geotextile is to be cut to provide access below the barrier.

3) Soil excavated from below the barrier is considered to be contaminated landfill material and should be placed on a plastic sheet (away from the clean soil), to avoid contact with the surface soil. Also, proper personal protective equipment (i.e. coveralls, gloves, etc.) may be required to accomplish the work.

4) After completing the work, the excavated soil (from below the barrier) may be placed back into the excavation below the barrier as backfill.

5) After completion of the backfill below the matted area, the geotextile and marker are to be restored, and the excavation equipment cleaned.

6) The soils excavated from the top two feet (or clean fill from another source) can be used as backfill above the geotextile barrier. The area should be re-vegetated and maintained, to off-set the erosion of clean backfill.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

March 22, 2000

Property Owner Name
Property Owner Address
Property Owner City, State zip

Re: Agriculture Street Landfill Superfund Site - Supplemental Information

Dear Property Owner

The U.S. Environmental Protection Agency (EPA) recently sent a letter to owners of properties where the Non-Time Critical Soil Removal Action was conducted at the Agriculture Street Landfill Superfund Site ("Site"). That letter also provided a "Certificate of Completion" and instructions on steps that should be taken to maintain the integrity of the permeable soil barrier.

In a recent meeting concerning a number of environmental issues facing the city of New Orleans, Mayor Marc Morial raised some concerns related to this Site. The intent of this letter, in response to the Mayor's request, is to provide supplemental information on the importance of the Certificate of Completion, the potential impact a natural disaster may have on your property, and the status of plans to review the soil removal action.

For all owners of property where the response action was taken, the Certificate of Completion is a legal document certifying that EPA completed an environmental response action on your property. It verifies that the potential threat to human health presented by hazardous substances in the landfill identified through EPA procedures has been abated by the response action. It contains the instructions for maintaining the permeable barrier installed on your property. It also re-states the finding of the Agency for Toxic Substances and Disease Registry (ATSDR) that the response action is sufficient to protect public health and the environment. It is important that you keep the Certificate of Completion with other important documents involving your property. Many states, including Louisiana, have laws requiring sellers of property to notify buyers of environmental contamination prior to sale or other transfer. The Certificate of Completion may be useful to you in fulfilling such requirements if you should sell your property in the future.

In addition to advising all owners of property where the response action was taken about

T-13

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proper maintenance procedures. EPA coordinated with the utility companies serving your area. The EPA developed Technical Abstract papers providing instructions for utility repair excavations which will ensure the continued integrity of the permeable barrier on those properties where it was installed. Copies of the Technical Abstracts were provided to all of the utility companies. The EPA also conducted a field demonstration of excavation and backfill procedures for utility companies at the Site on December 1, 1999.

The second item of concern was the effectiveness of the environmental response action in the wake of a natural disaster, an issue which has previously been addressed in EPA investigations and in information bulletins to the community. The contaminants of concern at this site (primarily lead, but also arsenic and polynuclear aromatic hydrocarbons) do not readily dissolve in water, but adhere to soil particles. During the non-time critical removal action at this site, a multi-layer barrier was constructed over the landfill contaminants. In the event of a flood, the barrier is expected to remain in place and the contaminants of concern now found in the subsurface soil below the barrier layers of geotextile, clean soil, and vegetation are expected to remain in the subsurface. For those property owners who elected not to participate in the response action, maintaining the surface vegetation will minimize the potential exposure to contaminants in the subsurface soils and will prevent soil erosion.

The environmental response action has now been completed on all those properties for which EPA was granted access. This includes Operable Units No. 1 and 3, and most of the area within Operable Unit No. 2. The EPA is currently conducting a review of the response action to determine if further response is appropriate. Once a determination is made, we will consider removing the undeveloped property, the community center, and the residential properties from the National Priorities List. Because hazardous substances will remain at the site, EPA will periodically review the action to assure that human health and the environment are being protected. The EPA will continue to keep the community informed of any new developments as they occur.

Should you have any additional questions or concerns associated with this project, please contact Mrs. Janetta Coats, the Community Involvement Coordinator at EPA's Toll-Free number at 1-800-533-3508.

Sincerely yours,

Gregg A. Cooke
Regional Administrator

cc: Honorable Marc Morial
Mayor of New Orleans