DELAWARE HAZARDOUS SUBSTANCE CLEANUP ACT EXPENDITURE PLAN

FISCAL YEAR 2001

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
Division of Air and Waste Management
Site Investigation & Restoration Branch

Nicholas A. DiPasquale
Secretary

June 2000

A Message from The Secretary

For the past few years, the Department of Natural Resources and Environmental Control's Site Investigation and Restoration Branch (DNREC-SIRB) has been very busy throughout the State. We have continued to work on sites located in the Wilmington Riverfront Area including taking part in the establishment of the outlet mall center, the Riverwalk, and restoring the adjacent marshland. We have also been successful in cleaning up contamination on other redevelopment projects including the new State Court House in Wilmington, two abandoned industrial plant sites in Newark (the Budd Metal and NVF plants), and the Healthways property in Odessa.

A major component of these successes is the continued support and strength of Delaware's Brownfields Initiatives. The Brownfields Initiatives combine the Pre-Remedial Brownfields Assessments Program with financial incentives and the Voluntary Cleanup Program (VCP). These simple tools have helped preserve greenfields while restoring abandoned and under utilized lands.

In addition to cleaning our environment and helping to limit sprawl, the Brownfields Initiatives also have had a positive economic and social impact. Contaminated sites have been redeveloped into residential housing, small businesses, churches, and charter schools. The continued development of the Riverfront area in Wilmington reinforces this area as a regional tourism destination.

As we continue to pursue these restoration and redevelopment goals and initiatives, the Department looks forward to making the process even more efficient. These efforts have resulted in the investigation of over 1200 acres of contaminated lands, many of which have been remediated and put back into productive use. It has also served as a significant economic engine throughout the state of Delaware.

We would like to take this opportunity to thank the following:

- Governor Carper for his continued leadership and support;
- The U.S. Environmental Protection Agency (EPA) for its guidance and financial support;
- The Riverfront Development Corporation (RDC) for its efforts in addressing environmental issues as part of its redevelopment projects; and
- The City of Wilmington and its many communities for their input and interest in these economic and environmental goals.

We are aware of the many challenges before us and will continue to strive for a successful Brownfields Program that improves the environment, protects public health, benefits Delaware's communities, and achieve Delaware's economic goals.

Nicholas A. DiPasquale, Secretary
Department of Natural Resources and Environmental Control

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Attachment B: Organizational Chart of the Site Investigation & Restoration Branch.

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I. INTRODUCTION

The Delaware Hazardous Substance Cleanup Program, also known as the State Superfund Program, is managed by the Department of Natural Resources and Environmental Control (DNREC), Division of Air and Waste Management, Site Investigation & Restoration Branch (formerly known as the Superfund Branch).

7 Del. C., Section 9104 (c) (2) of the Delaware Hazardous Substance Cleanup Act (HSCA) requires the Secretary of DNREC to prepare an annual budget for the proposed use of the Hazardous Substance Cleanup Fund. The following report, prepared for the Governor and the Delaware General Assembly, represents DNREC's Hazardous Substance Cleanup Program Expenditure Plan for Fiscal Year 2001.

The Department's goal in developing and updating this expenditure plan is to use the most current information to provide the Legislature, other interested parties and agencies, and the general public, with a complete description of the Department's plans for investigating and remediating hazardous substance release sites in Delaware. This plan identifies the number of Delaware hazardous substance release sites targeted for cleanup, through enforcement actions imposed on responsible parties, by the Department and by private parties under the Voluntary Cleanup Program, over the next five fiscal years.

It is important to note that during the course of a fiscal year, it becomes necessary to engage in activities which are unknown and difficult to predict at the time the annual expenditure plan is drafted (e.g., voluntary cleanup actions, interim response actions, imminent danger abatements). Although these activities are difficult to forecast in the expenditure plan for a fiscal year, the Department accounts for such activities at the end of the fiscal year as represented in Section III (Accomplishments During Fiscal Year 1999) of this plan. The Department lists all activities conducted for the past year in an effort to satisfy the requirements found in 7 Del. C., Chapter 91, Section 9113(e). In this section, the Secretary of the Department must seek approval from the Speaker of the House and the President Pro Tempore of the Senate for any expenditures from the Delaware Hazardous Substance Cleanup Fund not budgeted in the annual expenditure plan. The Department assures that all expenditures are made in accordance with the expenditure plan budget and are necessary to carry out the purposes of 7 Del. C., Chapter 91. The Department has never exceeded the expenditure budget in any of the years since the inception of HSCA in 1990. However, the number of sites addressed during a year may have varied from what was budgeted for that year.

This plan is divided into several distinct sections. The Delaware Hazardous Substance Cleanup Program is discussed in detail in Section II. Section III outlines the site-specific and program-related accomplishments of the Program during FY 2000, whereas, the projected goals and objectives for the next five years are discussed under Section IV. The plan also includes a description of the Early Compliance Detection Incentive (ECDI) Program under Section V. The ECDI Program provides reimbursements to responsible parties that have registered their petroleum tanks for inclusion in the program and have completed one or all of the remediation requirements at a given facility. Section VI of this document lists the provisional expenditures for FY2000 and a budget for FY2001 through FY2005.

Section 9104 (c) (2) of HSCA also requires that an annual audit of the fiscal affairs and that the resulting audit be submitted the Governor and the Delaware General Assembly. No audit was conducted for FY 2000 fiscal affairs and hence the audit report is not included with this report.

II. THE SITE INVESTIGATION & RESTORATION PROGRAM

The Delaware Hazardous Substance Cleanup Act (HSCA)

The Delaware Hazardous Substance Cleanup Act (HSCA), 7 Del. C., Chapter 91, was passed by the Delaware General Assembly in July of 1990 and was amended in June of 1993 and July of 1995. The latest amendment promotes the voluntary cleanup of contaminated sites, especially underutilized "brownfields" in the industrial belt, in an effort to preserve greenfields and spark economic redevelopment activity. The HSCA statute gives DNREC the ability to ensure cleanup of facilities with a release or a threat of release of hazardous substances. The main objective of HSCA is to enable DNREC to address those sites that are not remediated under the Federal Superfund Program.

The HSCA program is funded by levying a 0.9% tax on all taxable gross receipts from the sale of petroleum or petroleum products, with the exception of crude oil. It identifies parties potentially responsible for causing a release of hazardous substances into the environment. The State Superfund Program requires those potentially responsible parties to pay for the costs associated with investigating, and if necessary, remediating a site. If a potentially responsible party cannot be identified or is unable to pay for the cleanup, monies from the Hazardous Substance Cleanup Fund are utilized to perform the cleanup at the site.

DNREC has identified over 435 sites in Delaware as potential hazardous substance release sites, of which 111 have a higher priority because they pose a risk to public health, welfare, and/or the environment. Of these 111 sites, 94 sites fall under the purview of HSCA and 17 under EPA's Superfund program (National Priority List). Forty-nine (49) of the 111 sites under HSCA are currently undergoing investigation and 46 sites are currently being addressed under the Voluntary Cleanup Program (VCP)/Brownfields Program. The remaining sites will be addressed in the future.

Work has been completed at 76 sites under HSCA. Of the 17 NPL sites, cleanup has been completed at 10 sites. Cleanup has been completed at 41 VCP/Brownfields sites to date resulting in the reuse of more than 200 acres of old underutilized properties.

The Delaware Regulations Governing Hazardous Substance Cleanup

The HSCA requires the Secretary of DNREC to promulgate regulations in order to establish procedures governing site cleanups. The Delaware Regulations Governing Hazardous Substance Cleanup were promulgated by DNREC on January 12, 1993 and amended on April 1994, April1995 and September 1996. These regulations describe the entire remedial process, from the identification and investigation of a site to its final cleanup.

Any facility with a release or imminent threat of a release may go through one or more of the following steps:

- Facility Identification: Facilities are identified through a variety of mechanisms, such as complaints from the public, and reports from DNREC, other government entities or parties.

- Initial Investigation: An initial investigation determines if a release or imminent threat of release of hazardous substances might have occurred that warrants further action including a field visit and examination of existing records.

- Facility Evaluation: The Department or any person may conduct a facility evaluation to confirm the release or imminent threat of release of hazardous substances at a facility and develop information to evaluate the potential threat to public health, welfare or the environment.

- Identification and Notification of Potentially Responsible Parties (PRPs): The Department initiates actions to identify and notify the potentially responsible parties associated with a facility where a release or imminent threat of release of hazardous substances has been confirmed.

- Priority List: The Department prepares a priority list of facilities, from the inventory of hazardous substance release sites where further action is necessary.

- Negotiations with Potentially Responsible Parties: The Department may require the potentially responsible parties to perform response actions by issuing a letter inviting negotiations towards preparation of a settlement agreement. If the potentially responsible parties and DNREC fail to reach a settlement agreement within 90 days, the Secretary may issue an administrative order after a hearing, or may initiate cleanup using the Hazardous Substance Cleanup Fund and pursue recovery of costs from the responsible parties through the courts. However, the Department may at any time carry out a response action at a facility if the potentially responsible parties have not carried out the response action in a timely manner or if no potentially responsible parties can be identified.

- Remedial Investigation: A remedial investigation may be conducted at a facility to clearly describe the risks to public health, welfare or the environment, and to identify the specific problems requiring remediation. This is usually the first phase of a response action at a facility pursuant to a settlement agreement being performed by the potentially responsible parties. This step involves extensive field sampling of the different media and analyses of the samples.

- Feasibility Study: A feasibility study follows a remedial investigation at a facility, and identifies the remedial alternatives appropriate to the site.

- Plan of Remedial Action: The Department prepares a proposed plan of remedial action outlining the alternative chosen by the Department, and provides for public notice and opportunity to comment. After review and consideration of the comments received the Department issues a final plan of remedial action.

- Remediation: Based on the final plan of remedial action, the selected remedy is implemented at a facility. This process consists of distinct phases:

  Remedial Design: This phase consists of preparation of engineering design reports and construction plans and specifications.

  Remedial Action: This refers to the actual implementation of the remedy in accordance with the construction plans and specifications.

  Operation and Maintenance (O&M) and Compliance Monitoring: The O&M include actions to maintain the effectiveness of the remedial action, whereas compliance monitoring verifies the attainment of cleanup levels and the long-term effectiveness of the remedial action.

- Interim Response Activity: The Department may require or conduct an interim action at any time before the selection of a final remedy to prevent, minimize or mitigate harm to public health, welfare or the environment.

Voluntary Cleanup/Brownfields Program

The Delaware Voluntary Cleanup/Brownfields Program was developed in order to achieve the broad goal of responsible land use throughout the state. It supports sound land use management with an emphasis toward sustainable economic redevelopment. Since 1993, the State of Delaware has been redirecting programs to support the rehabilitation and reuse of industrial and commercial properties which have historically been abandoned or underutilized as a consequence of environmental contamination. In the past, the private sector's interest in purchasing and revitalizing these properties was often diminished by the liability and cleanup costs associated with such contaminated sites.

Delaware's Voluntary Cleanup program began in August of 1993. While the developers' fear of liability could be allayed through their participation in this program, obtaining funds to cover the costs of property acquisition, cleanup and redevelopment was still a challenge. This gave rise to the Brownfields Program in 1995 to promote the reuse of old and abandoned industrial sites. Under this program, the State provides economic incentives to the business community in the form of tax credits and financial assistance.

Both programs have been successful in attracting businesses to historically industrial areas throughout Delaware. Since the inception of the Voluntary Cleanup and Brownfields programs, 107 sites have entered the program; 46 sites are currently undergoing cleanup; and 62 sites have been cleaned up and reused or are being planned for reuse.

Ranking of Sites

In FY1994, the Department developed the Delaware Hazard Ranking Model to rank sites based on the relative degree of risk posed by the sites to public health, welfare and the environment. Using this ranking model, all of the sites have been prioritized. A majority of the sites scheduled for investigation and remediation in the future (except those addressed under the VCP) are sites that have undergone some limited investigations under the Federal Superfund Program.

Under the HSCA program, the Model ranks hazardous waste sites in the following order:

1. Sites that pose an imminent threat to public health, welfare and the environment;
2. Sites under the Voluntary Cleanup Program where the private parties volunteer to investigate and clean up a site, and are willing to expend their own monies up front for the remedial activities associated with the site; and
3. Other HSCA sites that may require work, but do not pose an imminent threat to the public health, welfare, and the environment.

A list of all hazardous substance release sites reported or identified in Delaware and their current status is included in Attachment B.

Cleanup Assumptions

There are a number of variables that can cause significant differences in actual versus projected site cleanup activities. For example, hazardous substance release sites currently believed to be of moderate size and complexity, could be discovered to be large and highly complex as a result of a more extensive study (Remedial Investigation/ Feasibility Study). Similarly, sites that are currently projected for responsible party financed cleanup could become state-financed sites if private monies are exhausted or are not immediately available to complete the cleanup and state-financed sites can also change to party financed sites. The responsible party-financed cleanup is often delayed due to factors beyond the control of the Department. Further, with the advent of the Voluntary Cleanup Program and its approach that provides incentives to private parties to spontaneously initiate the remedial process, it is difficult to predict the number of sites that will be addressed under that program.

Despite these limitations, the Department believes that this report is based on reasonable and sound assumptions, and that the cleanup projections provided are the most accurate that can be made at this time on the basis of current available information.

Duration of Site Cleanup

There are many reasons why site investigations and cleanup activities can take years to complete. Technical complexities arise during the investigation, design, and final cleanup phases. This is particularly true of sites involving contaminated groundwater in geologically complex situations or when new treatment technologies are being applied. The program often faces situations where there is not <u>one</u> single way of remediating sites.

In addition to technological challenges, site cleanup actions may sometimes be delayed due to the inability of the responsible parties to respond quickly or competently to DNREC orders and directions. Cleanup actions may also be delayed because responsible parties refuse DNREC site access or raise other legal challenges.

Another important factor that impacts upon the timing of the remedial activities is the public participation process. The HSCA mandates public notice and involvement at various times during the site investigation and cleanup process. This process is obviously a pivotal component in assuring that those most affected by these sites are kept abreast of the facts and allowed the opportunity to advise DNREC of their views and concerns. Public participation adds additional time to the entire remedial process. On occasion, the most desirable cleanup option (from a technical perspective) may be unacceptable to the public and, therefore, another option may be selected. The Department maintains an active community relations program for all sites under its jurisdiction in order to assure that public participation is meaningful and significant. In addition to the provisions for public input in both the HSCA and the Delaware Regulations Governing Hazardous Substance Cleanup, local meetings, fact sheets, newsletters, as well as "door-to-door" canvassing are some of the other methods SIRB uses. The Branch strongly believes in maintaining close ties with the public and communities affected by these sites during the remedial process.

Organization of the Site Investigation and Restoration Program

As stated earlier, primary responsibility for implementation of the Hazardous Substance Cleanup Act lies within DNREC's Division of Air and Waste Management, Site Investigation & Restoration Branch (SIRB). The SIRB currently has 30 full time positions dedicated to these remedial programs. Of these, 13 are funded by the Environmental Protection Agency, 1 by the Department of Defense through Cooperative Agreements, 3 by General Funds and 13 by the Delaware Hazardous Substance Cleanup Act Fund and from reimbursements by private parties for oversight of cleanup of their sites. Attachment C depicts the organization of the Branch. The HSCA Fund also supports two positions within the Underground Storage Tank Branch that are responsible for administration of the ECDI program.

III. ACCOMPLISHMENTS DURING FISCAL YEAR 2000

Fiscal Year 2000 was once again a productive year for the Site Investigation and Restoration Program. The following pages describe the accomplishments of the Program, both site-specific and program-related.

Site-Specific Accomplishments

Each year in the annual expenditure plan, the Hazardous Substance Cleanup Program, in accordance with 7 Del. C., Chapter 91, Section 9104(c), attempts to project the goals related to site investigation and remedial activities for the upcoming fiscal year. Projections include the following assumptions:

- That the potentially responsible parties are willing to enter into settlement agreements with the Department;

- That the sites are not highly complex and do not require extensive investigative activities; and
- That the specific phase or activity will occur within a period of time typical for that activity.

The Department was able to exceed the projected commitments for most categories. This is primarily due to the success of the Voluntary Cleanup Program.

This year, as in the previous four years, the program experienced an increase in the demand for departmental oversight for investigative and remedial activities under the Voluntary Cleanup Program. The Department, under a policy signed by the Secretary, has assigned a very high priority for sites addressed under the VCP. Cleanup of sites under the VCP not only protects public health and the environment, but also promotes the reuse of brownfields sites for commercial and industrial activities, thereby preserving pristine areas or greenfields.

The following table compares the projected goals with the actual accomplishments for Fiscal Year 2000.

PHASE OF CLEANUP	PROJECTED			ACCOMPLISHED		
FE/RI/FS (Fund Lead)						
Ongoing	6			10		
Complete	4			6		
FE/RI/FS (PRP Lead)	HSCA	VCP	Total	HSCA	VCP	Total
Ongoing	12	18	30	20	12	32
Complete	7	11	18	5	17	22

PHASE OF CLEANUP	PROJECTED			ACCOMPLISHED		
RD/RA/Interim Action (Fund Lead)						
Ongoing	3			6		
Complete	2			0		
RD/RA/Interim Action (PRP Lead)	HSCA	VCP	**Total**	HSCA	VCP	**Total**
Ongoing	3	9	**12**	8	17	**25**
Complete	0	11	**11**	2	12	**14**

The following is a list of sites where cleanup activities were initiated, ongoing, and/or completed during FY 2000:

PHASE OF CLEANUP	FY 2000 ACCOMPLISHMENTS
FE/RI/FS (FUND LEAD)	
ONGOING	Milford Mosquito Control Shop
	Army Creek Marsh
	Berger Brothers

PHASE OF CLEANUP	FY 2000 ACCOMPLISHMENTS
	Delaware Brick Pit
	Diamond State Salvage (EPA Removal)
	Leisure Haven Mobile Home Park
	Meco Drive Site
	Millsboro Dump Site
	12th Street Drum Site (EPA Removal)
	Quillen Pit
	Dobbinsville Ball Field
COMPLETE	
	Georgetown Cleaners
	Seaboard Lumber
	Syntech
	Former Amoco Film Plant
FE/RI/FS (PRP LEAD)	
ONGOING	
	Dravo Marsh
	Sussex County LF, #1 -- Bridgeville
	Sussex County LF, #4
	Sussex County LF, #6, Omar
	Sussex County LF, #2 Stockley
	Sussex County Landfill #3, Angola
	100 Walnut Street
	560 Terminal Ave.
	A.M. Domino Jr. Salvage Co.
	American Scrap and Waste Co.
	Amp Circuits
	Capitol Cleaners
	Cress Collision Services, Inc.
	Delaware Air National Guard
	Denton Landfill
	Former Amoco Film Plant
	Former Amoco Polymer Plant
	Harry Wood Landfill
	ICI Americas Inc. Atlas Point Site
	Lewes Boatyard Site
COMPLETE	
	Amtrak Wilmington Refueling Facility
	Fox Point Phase II
	Delaware Brick Pit
	Dobbinsville Ball Field
	Georgetown Coal Gas
	Clayville Dump
INTERIM ACTION/RD/RA	

PHASE OF CLEANUP	FY 2000 ACCOMPLISHMENTS
(FUND LEAD)	
ONGOING	Healthways
	Syntech
	Toni Dry Cleaners
	Diamond State Salvage
	12th Street Drum Site
	Grubb Road
COMPLETE	
INTERIM ACTION/RD/RA (PRP LEAD)	
ONGOING	
	DP&L Indian River
	Pott's Property
	Reichhold Chemical
	Kent County Landfill / Houston
	Sealand, Mt. Pleasant
	Container Corporation
	NVF Yorklyn
	New Market Village Trailer Park
	Clayville Dump
COMPLETE	East 7th Street Drum Site (EPA Removal)
	Georgetown Cleaners
VCP SITES ONGOING	101 N. Poplar Street
	1121 Thatcher Street
	503 South Market Street
	Bayshore Car and Truck Rental
	Bellanca Hangar Site
	Budd metal
	Christina River Pedestrian Walkway
	City of Dover Public Works
	City of Newark Bikeway
	Clayville Dump
	CSX Property
	Deemer Steel – Ninth and Washington
	Del chapel OU3
	Del. Tech Parking Lot Site
	DelDot West Street Connector
	Dravo Shipyard – Harbor Associates
	Erectix Corporation
	Estate of Lester Nolan

PHASE OF CLEANUP	FY 2000 ACCOMPLISHMENTS
	Former Amoco Polymer Plant
	Former Dover Ice Plant
	Fraziers Pit
	Helen Chambers Park
	Kreiger Finger Property
	New Castle Fire School
	Newark Landfill
	Newport Boat Ramp Site
	NVF Company, Newark
	Peninsula Park LLC
	Port of Wilmington
	Proposed New Castle County Courthouse
	Scull Property
	Wilmington Public Works Yard
VCP SITES COMPLETE	Archives Building
	Bancroft Mills
	Brandywine Fibers
	Del Chapel OU2
	Del Tech – Wilmington
	Delaware Car Company
	Diamond Oil
	Dravo Shipyard – Amer Industrial Tech
	Eagle Run
	Fifth and Church Streets
	Five Points Fire Company
	Georgetown coal Gas
	Gray's Fine Printing
	Kenton Landfill OU1
	Madison Street Connection
	May B. Leasure Elementary School
	MLK Boulevard, North – South Section
	Morris Work Release Center
	Red Lion Property
	River Walk Phase V&VI Site
	Sardo and Sons
	Sussex Lumber Co.
	Wilson Street

Program-Related Accomplishments

- EQuIS Computer System

The DNREC SIRB is piloting a new computer system for the department a new database designed to warehouse our environmental laboratory and site geological data. This system may be adopted by the Department and allow for more cost-effective analysis of environmental information.

- Public Outreach Efforts:

The Site Investigation & Restoration Branch has continued its effort to educate the public on the Superfund process. SIRB has supported the efforts of the department's community advisory committee that has resulted in the establishment of closer relationships with different communities with in the City of Wilmington.

The SIRB has formalized its relationship with the City of Wilmington by the creation of a Memorandum of Understanding (MOU). This MOU stresses the need for joint communication. The Branch also participated in Coast Day, State Fair, and Artesian Water Day ce~~lebrati~~ons, as well as the "What In The World", Science Alliance and "Diversity Day" programs in area schools.

- Bi-Annual Report

The SIRB published its 9th Annual Report (1999-2000) in fiscal year 2000 and to lessen administrative costs, we plan to publish a Bi-Annual report. Professionally prepared by a team of national publicists, the Report detailed the SIRB's successes and accomplishments. The Report provides information on the various types of sites that the SIRB handles as well as providing information about HSCA, the VCP program and the Brownfields Initiatives Programs.

IV. Other Program Sites Addressed During FY 2000

The table below list sites to which a HSCA funded position may have charged time. The two programs include EPA National Priority List sites and Department of Defense sites. SIRB has oversight responsibilities for these sites. SIRB lists these sites to show our accomplishments in these areas as well as to show where project officers spent their time.

Site Status / Phase	FY 2000 Accomplishments
NPL Sites Ongoing	
	Sussex County Landfill #5
	Harvey & Knott Drum Site
	Harbeson Dead Swan Site
	Army Creek Landfill (Monitoring)
	Cokers landfill #1 & #2 (RA)
	Delaware City PVC Plant (FS)

Site Status / Phase	FY 2000 Accomplishments
	Wildcat landfill (Monitoring)
	Delaware Sand & Gravel Landfill (Monitoring)
	Tybouts Corner Landfill (Monitoring)
	Metal Masters (Monitoring)
	Dover Gas Light Company (RD/RA)
	Halby chemical (RD)
	E.I. DuPont, Newport Landfill (RD/RA)
	Standard Chlorine Co (RD)
	Koppers Co. Facilities Site (RI)
	Dover Air Force Base (RI/FS)
	NCR Corp. (RA)
	Chem-solv Inc. (RD/ Monitoring)
FUDS Ongoing	Fort Miles
	Governor Bacon Health Center
	Bethany Beach
PA/SI Grant Work	Helen Chambers Park (Pre-Remedial, Complete)
	University of Delaware (Complete)
	Arlon Inc. (Complete)
	Delacote Corp / Eastwind (SI Complete)
	Prime Hook Refuge Area
BPA II	
	Delaware Car Company (complete)
	Salvage yard Relocation Area II
	East 7th Street Peninsula - South
	East 7th Street Peninsula – North
	Salvage yard Relocation Area I (Complete)
	Arsenic Tannery Site
	Hessler Property
	Capitol Scrap (Complete)
	P&C Roofing (Complete)

V. FOUR-YEAR PROJECTED CLEANUP GOALS AND OBJECTIVES (FY 2001-FY 2005)

Five-Year Projected Cleanup Plans (FY 2001 – FY 2005)

The following represents projected phases of investigative and remedial activities for currently identified sites during FY2001 through FY2005. These projections are based on several assumptions (e.g., the site will require additional phases of investigation, the site will require some degree of remediation, etc.), and are therefore difficult to confirm until the results from a particular phase are assessed. The Department will use the following schedule as a guide and

will make the necessary adjustments to this schedule by incorporating actual site-specific information, as it becomes available.

PHASE OF CLEANUP	FY2001	FY2002	FY 2003	FY2004	FY2005	
FE/RI/FS (State/Fund Lead)	5 complete 6 ongoing	5 complete 6 ongoing	5 complete 6 ongoing	5 complete 6 ongoing	5 complete 6 ongoing	
FE/RI/FS (PRP Lead)	10 complete 10 ongoing	10 complete 10 ongoing	10 complete 10 ongoing	10 complete 10 ongoing	10 complete 10 ongoing	
RD/Remedial Action /Interim Action(State/ Fund Lead)	2 complete 2 ongoing	2 complete 2 ongoing	2 complete 2 ongoing	2 complete 2 ongoing	2 complete 2 ongoing	
RD/Remedial Action /Interim Action (PRP Lead)	5 complete 5 ongoing	5 complete 5 ongoing	5 complete 5 ongoing	5 complete 5 ongoing	5 complete 5 ongoing	

Site-Specific Goals For Fiscal Year 2001

The Site Investigation & Restoration Branch is hopeful that the next fiscal year will be as productive and fulfilling as this one. The following table lists the site-specific goals for FY 2001.

PHASE OF CLEANUP	FY 2001 GOALS
FE/RI/FS (FUND LEAD)	
ONGOING	Berger Brothers
	Delaware Brick Pit
	Leisure Haven Mobile Home Park
	St. George's Bridge
	Tony Dry Cleaners
	To Be Determined
COMPLETE	
	Dobbinsville Ball Park
	Faucet Property
	Healthways
	Lewes Boat Yard Site
	Milford Mosquito Control Shop
	Millsboro Dump Site
	Quillen Pit

PHASE OF CLEANUP	FY 2001 GOALS
	Syntech
FE/RI/FS (PRP LEAD)	
ONGOING	
	Army Creek Marsh
	American Scrap and Waste Company
	Capitol Cleaners
	Cress Collision Services, Inc.
	Denton Landfill
	Former Amoco Film Plant
	Former Amoco Polymer Plant
	Georgetown Coal Gas
	Harry Wood Landfill
	Necastro Auto Salvage
	Stadium Site
COMPLETE	
	Amp Circuit
	Delaware Brick Pit
	Dobbinsville Ball Field
	George Gray School
	Summit Landfill
	Sussex County Landfill #1, Bridgeville
	Sussex County Landfill #2, Stockley
	Sussex County Landfill #3, Angola
	Sussex County Landfill #6, Omar
	100 Walnut Street
INTERIM ACTION/RD/RA (FUND LEAD)	
ONGOING	Amtrak Refueling Station
	Arm Creek Marsh
	Georgetown Cleaners
	Grubb Road
	Meco Drive
	Potts Property
	Seaboard Lumber
	Syntech
COMPLETE	
	Healthways
	Toni Dry Cleaners
INTERIM ACTION/RD/RA (PRP LEAD)	
ONGOING	

PHASE OF CLEANUP	FY 2001 GOALS
	Container Corp.
	Dravo Shipyard – Harbor Associates
	Georgetown Coal Gas
	Reichhold Chemical
COMPLETE	
	ICI Americas Atlas Point
	New Market Village Trailer Park
VCP SITES ONGOING	
	121 N. Poplar Street
	560 Terminal Avenue
	Bancroft Mills
	Bellanca Hangar Site
	Brandywine Fibers
	Budd Metal
	Clayville Dump

PHASE OF CLEANUP	FY 2001 GOALS
	Diamond Oil
	Dover Public Works
	Estate of Lester Nolan
	Former Amoco Polymer Plant
	Former Dover Ice Plant
	Fourth Street Bridge
	Fraziers Pit
	Interfaith Housing
	Kenton Landfill, Houston
	New Castle Fire School
	Newport Boat Ramp
	Ninth and Washington – Deemer Steel
	Peninsula Park LLC
	Port of Wilmington
	Red Lion Property
	Sardo and Sons
	Thermal Loop
	Wilmington Coal Gas Northern Section
	Wilmington Coal Gas Southern Section
	Wilmington Public Works Yard
VCP SITES COMPLETE	
	101 N. Poplar Street
	1121 Thatcher Street
	12th Street Associates
	Bayshore Car and Truck Rental
	Christina River Pedestrian Walkway
	Delaware Car Company
	Del Chapel OU3
	Del Dot West Street Connector
	Eagle Run
	Erectix Corporation
	Helen Chambers Park
	Krieger Finger Property
	May B. Leasure Elementary School
	NVF Company Newark
	Proposed New Castle County Court House
	Riverwalk Phase V & VI
BPA II COMPLETE	
	Arsenic Tannery Site
	Salvage Yard Relocation Area I
	Salvage Yard Relocation Area II
	Hessler Property
EPA LEAD SITES	

PHASE OF CLEANUP	FY 2001 GOALS
ONGOING	
	Army Creek Landfill
	Cokers Landfill #1 & #2
	Chem-Solv Inc.
	Delaware City PVC Plant
	Delaware Sand & Gravel Landfill
	Dover Airforce Base
	Dover Gas Light Company
	E.I. DuPont Newport Landfill
	Halby Chemical
	Koppers Company Facility Site
	Metal Masters
	NCR Corporation
	Standard Chlorine
	Tybout's Corner Landfill
	Wild Cat Landfill
PA/SI ONGOING	
	Governor Bacon Health Center

Program-Related Goals and Objectives For Fiscal Year 2001

The following represent the program-related goals and objectives for FY 2001:

- Publish a Superfund Annual Report for Fiscal Year 2001 describing the progress and activities at the sites.
- Publish quarterly newsletter titled "The SIRB News Letter."
- Revitalize and put back into reuse 20 acres of Brownfield sites.
- Publish HSCA expenditures plan for FY 2002.

VI. THE EARLY COMPLIANCE and DETECTION INCENTIVE PROGRAM (ECDI)

The Early Compliance and Detection Incentive Program is managed by DNREC's Division of Air and Waste Management, Underground Storage Tank Branch. It provides reimbursement to responsible parties who have conducted financed remediation of leaking underground storage tanks. Reimbursement is provided as the applications are received and reviewed under the provisions of the Program. In the event that the requests for reimbursement exceed the funding level, the approved requests will be reimbursed as funding is received.

To date, 389 reimbursements have been made from the Fund. The reimbursements have been disbursed to 111 sites, 54 of which have received a 'No Further Action' letter from the Department. The 54 sites that have been closed were reimbursed a total of $4,126,667.37.

The following is the amount reimbursed in each calendar year:

YEAR	AMOUNT ($)/CALENDAR YEAR	AMOUNT ($) /FISCAL YEAR
1991	$222,997.22	$140,801.83
1992	$810,668.66	$310,819.39
1993	$679,816.48	$845,071.64
1994	$740,576.58	$850,000.00
1995	$1,622,330.81	$1,300,751.69
1996	$1,075,020.68	$1,267,703.86
1997	$1,578,966.93	$1,360,025.36
1998	$1,158,735.31	$1,350,000.00
1999	$1,579,723.01	$1,350,000.00
2000	$583,589.11	$1,277,250.76
TOTAL TO DATE ((6/14/00)	**$10,052,424.79**	**$10,052,424.79**

Average cost = $82.970.79/site.

Average cost per closed site = $76,419.77/site

VII. EXPENDITURES

The HSCA Fund generates an estimated $3.9 million in revenue annually.

The table on the following page represents provisional expenditures during FY 2000 and a detailed budget projection for FY 2001 through FY 2005.

ATTACHMENT C: GLOSSARY

DNREC
The Department of Natural Resources and Environmental Control.

ECDI Program
The Early Compliance and Detection Incentive Program which provides reimbursements to responsible parties who have conducted cleanup activities of leaking underground storage tanks.

Facility Evaluation (FE)
A FE involves a limited scope of investigation to confirm the release or a threat of release of hazardous substances. A FE also develops information to evaluate the risk to public health, welfare and the environment and determines the relative priority of a facility. Finally, a FE determines what further action is needed at the site.

Facility Identification
The process of identifying facilities with a release of hazardous substances, based on complaints from the public, reports from other agencies or parties, etc.

Feasibility Study (FS)
This process follows the remedial investigation and identifies the remedial alternatives appropriate to the site.

HSCA
The Delaware Hazardous Substance Cleanup Act first enacted in July of 1990, and later amended in June of 1993 and July of 1995 respectively. It is also known as the State Superfund Program.

HSCA Fund
A fund created for the purpose of addressing hazardous substance release sites in Delaware. The Fund consists of revenues from a 0.9% tax on gross receipts from petroleum products, penalty monies, and monies obtained through recovery of costs from potentially responsible parties.

Identification and Notification of Potentially Responsible Parties (PRPs)/PRP Search
The process whereby the Department will initiate actions to identify and notify the PRPs associated with the facility where a release or a threat of release has been confirmed.

Initial Investigation
The process of determining if a release or imminent threat of release of hazardous substances may have occurred that warrants further action. This can include a field visit and an examination of existing records.

Interim Action
An action at a site to prevent, minimize or mitigate harm to public health, welfare and the environment while the investigation and the study are ongoing.

Operable Unit (OU)
An operable unit portion of a Superfund site that is addressed separately from the rest of the site to allow for easier management or a more timely response.

Operation and Maintenance (O & M)
Actions to ascertain the effectiveness of the remedial action.

Potentially Responsible Parties (PRPs)
Parties, including owners, and operators, who may have contributed to the contamination at a site, and may be liable for costs related to response actions at that site.

PRP Lead
This refers to a site where the PRP(s) performs investigative and remedial actions, and bears the costs of those activities.

Remediation
The implementation of a selected remedy that may consist of phases such as design, construction, operation and maintenance, and compliance monitoring.

Remedial Action (RA)
This is a response action at a site that involves the containment, treatment, isolation, and removal of hazardous substances in order to prevent, minimize, or mitigate harm to public health, welfare and the environment.

Remedial Investigation (RI)
This is an extensive investigative study conducted at a facility to define the risks to public health, welfare and the environment.

State/Fund Lead
This refers to a site where a PRP: (1) cannot be identified; (2) is unwilling to perform investigative or remedial activities; and (3) is unable to pay for cleanup. In such instances, the Department may carry out the investigative and remedial activities at the site using monies from the HSCA Fund.

Voluntary Cleanup Program (VCP)
A program established by the Site Investigation & Restoration Branch in order to promote voluntary remediation of contaminated sites. It is hoped that this will also promote the economic development of brownfields, thereby conserving greenfield areas.

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HAZARDOUS SUBSTANCE CLEANUP ACT
EXPENDITURE PLAN
FY 2000 - FY 2005
(in thousands)

	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Revenue Total	19480.82	19960.00	19960.00	19960.00	19960.00	19960.00
Revenue Sources						
Tax Receipts	3809.29	3800.00	3800.00	3800.00	3800.00	3800.00
Private Party Cleanup Reimbursement	552.69	600.00	600.00	600.00	600.00	600.00
Interest on Deposits	575.40	560.00	560.00	560.00	560.00	560.00
Prior Year Carry Over	14543.44	15000.00	15000.00	15000.00	15000.00	15000.00
Expenditure Total	6378.74	3890.48	3966.70	4045.20	4126.06	4209.34
Program						
Superfund	3189.37	2220.24	2286.85	2355.46	2426.12	2498.90
Underground Storage Tank	1527.91	1670.24	1679.85	1689.75	1699.94	1710.44
Administrative Cost	501.83	640.48	659.70	679.49	699.88	720.87
Superfund	295.40	320.24	329.85	339.75	349.94	360.44
Underground	206.43	320.24	329.85	339.75	349.94	360.44
Remediation Cost	4215.45	3250.00	3307.00	3365.71	3426.18	3488.47
Superfund	2893.97	1900.00	1957.00	2015.71	2076.18	2138.47
Underground Storage Tank	1321.48	1350.00	1350.00	1350.00	1350.00	1350.00
Expenditure Detail						
Total Superfund	3189.37	2220.24	2286.85	2355.46	2426.12	2498.90
Administrative Cost	295.40	320.24	329.85	339.75	349.94	360.44
Salaries		209.80	216.09	222.58	229.25	236.13
Operating Costs		74.44	77.76	81.17	84.68	88.30
Division of Revenue Expenses		36.00	36.00	36.00	36.00	36.00
Remediation Cost	2893.97	3448.44	2125.94	1913.15	1886.09	1835.96
Site Discovery/Site Assessment	170.00	559.05	435.30	440.77	446.46	452.32
Facility Evaluation Oversight	120.00	124.80	129.79	134.98	140.38	146.00
Facility Evaluations	45.00	200.00	200.00	200.00	200.00	200.00
Analytical	25.00	100.00	100.00	100.00	100.00	100.00
Drilling	20.00	100.00	100.00	100.00	100.00	100.00
Responsible Party Searches	5.00	5.25	5.51	5.79	6.08	6.32
Insurance Archeology Search	0.00	50.00	50.00	50.00	50.00	50.00
Christina Basin Brownfield Assessment	0.00	49.00	0.00	0.00	0.00	0.00
Basin Team PCB Assessments	0.00	180.00	100.00	100.00	100.00	100.00
Capital Outlay	5.00	40.00	25.00	25.00	25.00	25.00
Instruments	2.80	0.00	0.00	0.00	0.00	0.00
GC/MS	0.00	10.00	10.00	10.00	10.00	10.00
FID/PID	0.00	5.00	5.00	5.00	5.00	5.00
Xray Florescent	0.00	15.00	0.00	0.00	0.00	0.00
Mobile Lab	2.20	10.00	10.00	10.00	10.00	10.00
Private Party Cleanup	471.27	523.89	539.61	555.79	572.47	589.64
Remedial Oversight	471.27	523.89	539.61	555.79	572.47	589.64
Fund-Financed Cleanup	2247.70	2125,50	926.03	691.58	642.16	569.00
Site Remediation						
Milford Mosquito Control Shop	62.70	200.00	200.00	50.00	50.00	5.00
Army Creek Marsh	0.40	100.00	0.00	0.00	0.00	0.00
Berger Brothers	38.30	20.00	20.00	10.00	5.00	0.00
Diamond State Salvage (EPA Removal)	0.00	5.00	5.00	0.00	0.00	0.00
Leisure Haven Mobile Home Park	79.50	10.00	10.00	0.00	0.00	0.00
Meco Drive Site	68.00	100.00	50.00	50.00	50.00	25.00
Millsboro Dump Site	0.00	5.00	5.00	0.00	0.00	0.00
12th Street Drum Site (EPA Removal	3.00	5.00	5.00	0.00	0.00	0.00
Quillen Pit	6.00	10.00	0.00	0.00	0.00	0.00
Heathways OU2	1300.00	50.00	50.00	50.00	5.00	5.00
Syntech	200.00	10.00	10.00	5.00	5.00	5.00
Georgetown Cleaners	200.00	300.00	50.00	5.00	5.00	5.00
Toni Dry Cleaners	60.00	50.00	5.00	5.00	5.00	5.00
Seaboard Lumber	200.00	100.00	5.00	5.00	5.00	5.00

Expenditures include encumbrances also.

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HAZARDOUS SUBSTANCE CLEANUP ACT
EXPENDITURE PLAN
FY 2000 - FY 2005
(in thousands)

	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Hillside Road	0.00	400.00	100.00	100.00	100.00	100.00
7th Street Drum Site	19.80					
Capitol Cleaners	0.00	400.00	50.00	50.00	50.00	50.00
Orphan Sites	0.00	150.00	150.00	150.00	150.00	150.00
Emergency Response		200.00	200.00	200.00	200.00	200.00
NPL Cost Share						
Tybouts Corner Landfill	10.00	10.50	11.03	11.58	12.16	14.00
Total Underground Tanks	**1527.91**	**1670.24**	**1679.85**	**1689.75**	**1699.94**	**1710.44**
Administration Cost		**320.24**	**329.85**	**339.75**	**349.94**	**360.44**
Salaries - Underground Tanks		166.76	166.76	166.76	166.76	166.76
Operating Costs		153.48	163.09	172.99	183.18	193.68
Remediation Cost		**1350.00**	**1350.00**	**1350.00**	**1350.00**	**1350.00**
Orphan Site						
ECDI		1350.00	1350.00	1350.00	1350.00	1350.00

Expenditures include encumbrances also.

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