FINAL PLAN OF REMEDIAL ACTION

SCANNED
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File# 1318 B9

Healthways, Inc., Site, Operable Unit 2 (OU2) March 1, 2009
Odessa, DE DNREC Project No. DE-1318

This Final Plan of Remedial Action (Final Plan) presents the Department of Natural Resources and Environmental Control's (DNREC's) determination that: there are no adverse environmental impacts on OU2 attributable to the Healthways OU1 site. DNREC issued public notice of the Proposed Plan for the Site on January 20, 2009, and opened a 20-day public comment period, which ended on February 9, 2009. The Proposed Plan requires: No Further Action.

The Proposed Plan also includes the location of additional information found on the DNREC web page and in the DNREC office at Lukens Drive in New Castle.

There were no comments or questions from the public regarding the Proposed Plan. Therefore, the Proposed Plan was adopted as the Final Plan (see attached).

Approval:
This Final Plan meets the requirements of the Hazardous Substance Cleanup Act.

Kathleen Stiller, Program Manager II
Division of Air and Waste Management

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PROPOSED PLAN OF REMEDIAL ACTION

Healthways, Inc., Site, Operable Unit 2
Odessa, DE
DNREC Project No. DE-1318

January 2009

Delaware Department of Natural Resources and Environmental Control
Division of Air and Waste Management
Site Investigation & Restoration Branch
391 Lukens Drive
New Castle, Delaware 19720

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PROPOSED PLAN OF REMEDIAL ACTION

Healthways, Inc., Site
Operable Unit 2
Odessa, DE

DNREC Project No. DE-1318

Approval:
This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

Approved by:

James D. Werner, Director
Division of Air & Waste Management

13 JAN 2009
Date

HEALTHWAYS, INC., SITE
Operable Unit 2

What is the Healthways, Inc., Site, Operable Unit 2 (OU2)? The Healthways OU2 site consists of an unnamed tributary to the Appoquinimink River, and associated tidal marshes just outside of the town limits of Odessa.

Tax Parcel Number: OU2 includes portions of multiple tax parcels, and underwater lands owned by the State of Delaware.

Address: The site has no street address.

Nearest major intersection: DuPont Highway (U.S. Route 13) and Main Street (Delaware Route 299)

Area: Not determined; the OU2 site consists of wetland/stream portions of 14 separate parcels, including the parcels that make up OU1. (OU1 consists of approximately 5 acres.)

Zoning: Varies by parcel, including:

- CN - UDC - Commercial Neighborhood
- NC6.5 - UDC - Single Family - 6500 SF
- S - UDC - Suburban
- NC21 - UDC - Single Family - 1/2 Acre

Site Utilities: The Site has no utility service.

Nearest surface water body: An unnamed tributary to the Appoquinimink River.

Surrounding Property: Surrounding land use is open space, residential, and agricultural.

Site Utilities: The site has no city water and sewer service; however, the upland portions of various parcels may have such service.

Topography: The site is within the 100-year flood plain. It is essentially flat and consists entirely of streams and tidal wetlands.

Groundwater: Since OU2 consists of wetlands and open water, shallow groundwater is equivalent to surface water, which flows roughly eastward on the ebb current and westward on the flood current. The water supply wells for Odessa are within 0.25 mile of the site.

What happened at the Healthways, Inc. Site? Previous owners used the OU1 property as an automobile and truck salvage yard from approximately 1947 to 1997. This resulted in contamination of soils, groundwater, surface water, and sediments with metals, including lead, and petroleum-related hydrocarbons.

Operable Unit 1 (OU1)

Remediation of OU1 was completed by DNREC and its contractors in 2001. The north end of OU1 was restored as a tidal marsh and pond. OU1 is currently subject to Operations and Maintenance (O&M) activities, including ongoing monitoring of groundwater quality and maintenance of the vegetated cap.

Operable Unit 2 (OU2)

Because contamination of sediments was discovered during the investigation of OU1, DNREC decided to investigate the sediments in the stream and sediments downstream from OU1, to determine whether Healthways-related contamination posed an unacceptable risk to the ecosystem. This portion of the site was designated OU2.

What is the environmental problem at the Healthways OU2 Site?

DNREC and its contractor Tetra Tech completed a Remedial Investigation (RI), including an Ecological Risk Assessment (ERA), of OU2 in 2007. The final RI report was issued in February 2007. This investigation showed that there are **no** adverse environmental impacts on OU2 attributable to the OU1 site.

The investigation included sampling and analysis of marsh and stream sediments for chemical contaminants, and collection of samples to characterize the benthic invertebrate community. A laboratory tested the samples for metals, semivolatile organic compounds (SVOC), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), total organic carbon (TOC), and Acid Volatile Sulfides/Simultaneously Extracted Metals (AVS-SEM). Another laboratory tested the samples for toxicity to the standard test organism, the amphipod *Leptocheirus plumulosus,* and conducted the benthic invertebrate characterization. Tetra Tech's subsidiary, Tetra Tech NUS, conducted the ERA using these data. These results indicated that there are **no** adverse environmental impacts on OU2 attributable to the OU1 site.

What does the owner want to do at the Healthways OU2 Site?

DNREC SIRB is not aware of any new activities proposed for the Healthways OU2 site. The site consists of tidal wetlands, open water, and subaqueous lands; therefore, dredging, filling, or construction would be prohibited or restricted in any event under Federal and State laws.

What clean-up actions have been taken at the former Healthways OU2 Site?

No cleanup actions have been taken at the Healthways OU2 Site.

What additional clean-up actions are needed at the Healthways OU2 Site?

Based on the RI, DNREC has not identified any adverse environmental impacts on the stream and wetlands comprising OU2 resulting from the operation of OU1. Therefore, DNREC

recommends **No Further Action** at this site. After the public comment period, DNREC will issue a Final Plan of Remedial Action.

What are the long term plans for the Site after the cleanup?

DNREC SIRB is not aware of any new activities proposed for the Healthways OU2 site. Since no impact to the environment of OU2 was identified, DNREC SIRB will not restrict what activities can be undertaken there. However, restrictions imposed under other legal authority, *e.g.,* Clean Water Act, zoning code, would remain unchanged by this decision.

How can I find additional information or comment on the Proposed Plan?

The complete file on the site is available at the DNREC office, 391 Lukens Drive in New Castle. Most documents are also found on:

http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/

The 20-day public comment period begins on January 20, 2009, and ends at close of business (4:30 pm) on February 9, 2009. Please send written comments to the DNREC office or call Gregory DeCowsky, Project Manager, at 302-395-2600.

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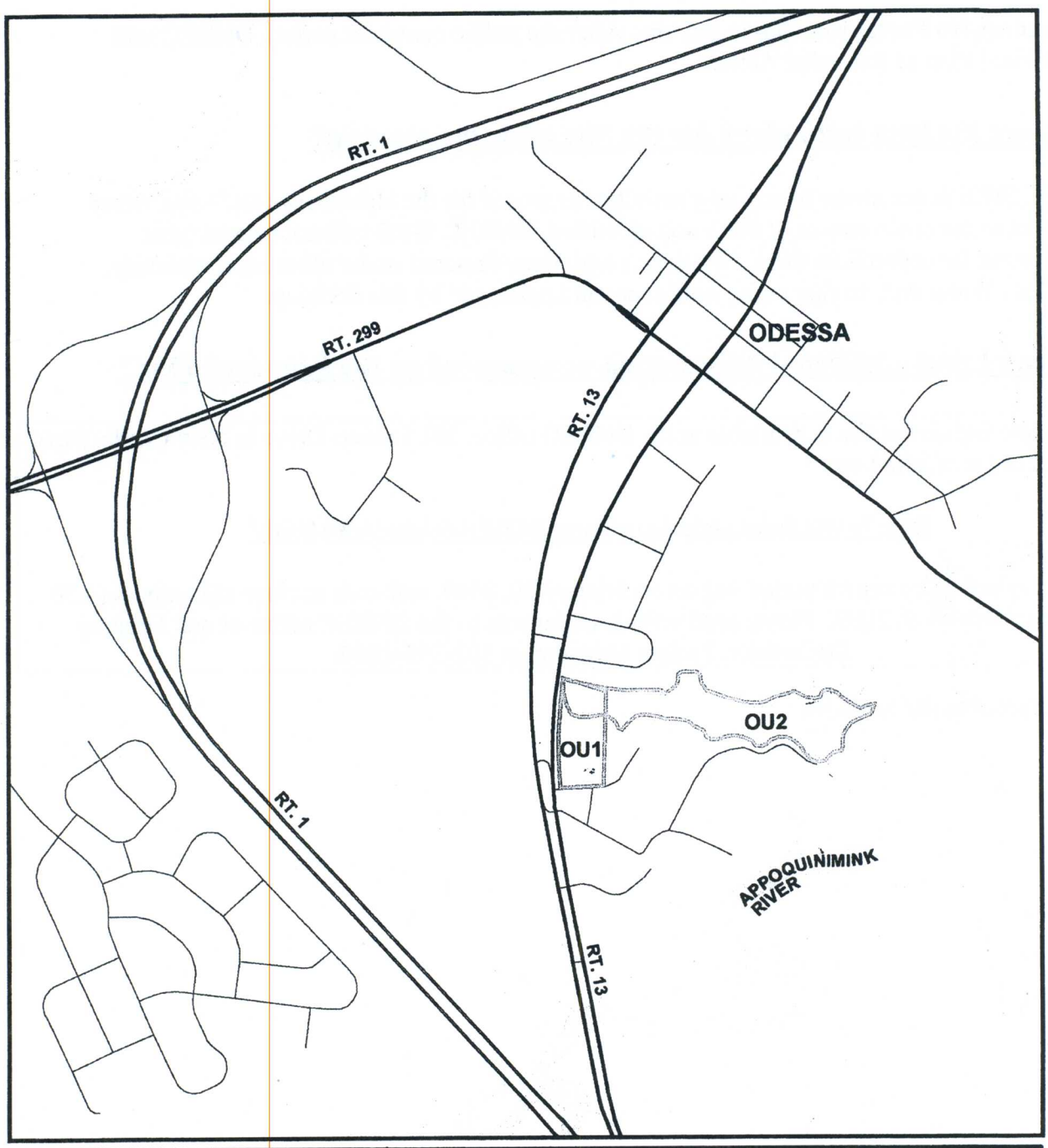

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1 inch equals 868 feet

1:10,416

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Feet

0 310 620 930 1,240

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DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
DAWM
Site Investigation & Restoration Branch
391 Lukens Drive,
New Castle, DE 19720
302.395.2600

FIG. 1 - SITE LOCATION MAP
HEALTHWAYS OU2
ODESSA, DE

This map is provided by the DNREC-SIRB solely for display and reference purposes and is subject to change without notice. DNREC-SIRB will not be held responsible for the assumed accuracy contained in the map or for use other than its intended purposes.
December 2008

Figure 2 *View of Healthways OU2 Site, looking northeast from atop the OU1 cap, east of northbound U.S. Route 13, June, 2004*

Glossary
of Terms Used in this Proposed Plan

Background *or* Natural Background	The level of contaminants present in the area from naturally occurring substances, excluding contaminants and other contributions resulting from human activity.
Background Sample *or* Reference Sample	A sample used in establishing a background level. In the case of Healthways OU2, reference samples were taken from five other tidal streams in southern New Castle County with similar characteristics.
Benthic Invertebrates	Animals without backbones that live on or in the sediments at the bottom of a body of surface water. Studying the types and relative populations of these animals in a particular environment, in combination with other data, can provide information as to whether that environment has been affected by contamination.
Contamination	The introduction of harmful or hazardous matter into the environment.
Ecological Risk Assessment (ERA)	The systematic, multi-step process of estimating the possible effects of exposure of organisms in the environment (*i.e.,* animals or plants) to hazardous substances.
Exposure	Contact with a substance through inhalation, ingestion, or direct contact with the skin. Exposure may be short term (acute) or long term (chronic).
Final Plan of Remedial Action	DNREC's proposal for cleaning up a hazardous site after it has been reviewed by the public and finalized.
Hazardous Substance Cleanup Act (HSCA)	*Delaware Code* Title 7, Chapter 91. The law that enables DNREC to identify parties responsible for hazardous substances releases and requires cleanup with oversight of the Department.
Healthways, Inc., Operable Unit 2	Healthways OU2 consists of the waters, wetlands, and stream-bottom sediments downstream from, and potentially affected by, the former Healthways, Inc., salvage yard itself (OU1), as far as the confluence of the unnamed stream adjacent to OU1 with the Appoquinimink River.
Leptocheirus plumulosus	An amphipod (type of crustacean) often used for laboratory toxicity testing of brackish-water sediments.
No Further Action (NFA)	A *No Further Action* decision can be issued at the end of an investigation or the completion of the remedy. NFA means that no known danger exists at the site.
Operable Unit (OU)	A subdivision of a site being investigated or remediated for hazardous substance contamination. Sites may be divided into OUs to simplify the administration of the cleanup and/or differentiate among areas with different environmental conditions or different types, levels, or sources of contamination or priorities for remediation.
Organic Compounds	Chemical compounds that contain carbon. Examples include alcohols and propane, as well as the individual compounds that make up petroleum products such as gasoline, fuel oil, motor oil, and asphalt.
Pathway	The route or medium through which hazardous substances are or were transported from the source of the release to the injured resource or the exposed human population.

PAH(s)	**Polycyclic aromatic hydrocarbons.** A class of organic compound found in oil and related materials or produced by the incomplete combustion of carbon-containing substances. Examples include naphthalene and pyrene.
Proposed Plan of Remedial Action	A plan for cleaning up a hazardous site submitted by DNREC and subject to public comments.
Remedial Investigation (RI)	A detailed evaluation of a release or imminent threat of release of a hazardous substance. An RI is conducted to determine the extent of contamination and the risks to public health and welfare and the environment. It typically includes site characterization, field investigations, and performance of risk assessments.
Remedy	Any action, response, or expenditure consistent with the purposes of HSCA, or any regulations or guidance issued under HSCA to identify, minimize, or eliminate any imminent threat posed by any hazardous substances, including preparation of any plans, conducting of any studies and any investigative, oversight, or monitoring activities, and any health assessments, risk assessments, or similar studies conducted to determine the risk or potential risk to public health or welfare or the environment.
Risk	Likelihood or probability of injury, disease, or death.
Sediment	A loose unconsolidated deposit of weathering debris, chemical precipitates, or biological debris that accumulates on Earth's surface; often under water. Sediments which become contaminated are often difficult and expensive to clean up, and provide a pathway for exposure of aquatic plants and animals to hazardous substances.
Site Investigation and Restoration Branch (SIRB)	The branch within DNREC's Division of Air and Waste Management (DAWM) which carries out HSCA and the Delaware Regulations Governing Hazardous Substance Cleanup, overseeing investigation, cleanup, and restoration of hazardous substance sites.

What is a *Proposed Plan?*

A Proposed Plan of Remedial Action (Proposed Plan) is a summary of how DNREC plans to clean up a contaminated site. A Final Plan of Remedial Action (Final Plan) is the adoption of the Proposed Plan, after all comments made by the public within the comment period of twenty days have been considered and addressed by DNREC.

The Delaware State Legislature passed the Hazardous Substance Cleanup Act (HSCA) in 1990. The Legislature made sure that members of the public would be informed about environmental problems in their own neighborhoods and have a chance to express their opinion concerning the clean up of those environmental problems before DNREC takes action.

After DNREC studies a site, it summarizes the problems there and proposes one or more possible solutions in a Proposed Plan. The Proposed Plan contains enough information to allow lay persons to understand the site. More detailed information can be found in the reports and documents approved by DNREC. All of the documents and reports created by DNREC or consultants during the course of the investigation of the site are available to the public at the offices of DNREC-SIRB or at DNREC's website:

http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/sitefiles.asp .

DNREC issues the Proposed Plan by advertising it in at least one newspaper in the county where the site is located. The legal notices for the Proposed Plans and the Final Plans usually run on Wednesdays or Sundays in the legal classified section of the News Journal and/or the Delaware State News. The public comment period begins on the day (Wednesday), or the day after (Sunday) the newspaper publishes the legal notice for the Proposed Plan.

DNREC frequently holds public meetings during the comment period. Those meetings are usually held near the site in the evening. Citizens can request a public meeting if DNREC did not already schedule one.

Comments are collected at the public meetings, by phone or in writing. DNREC considers all comments and questions from the public before the Proposed Plan is finalized and adopted as a Final Plan.