

**Support Document for the  
Revised National Priorities List  
Final Rule - September 2004**

**State, Tribal, and Site Identification Branch  
Office of Solid Waste and Emergency Response  
U.S. Environmental Protection Agency  
Washington, DC 20460**

## **ABSTRACT**

Pursuant to Section 105(a)(8)(B) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), the U.S. Environmental Protection Agency (EPA) periodically adds hazardous waste sites to the National Priorities List (NPL). Prior to actually listing a site, EPA proposes the site in the *Federal Register* and solicits public comments.

This document provides responses to public comments received on one site proposed on April 30, 2003 (68 FR 23094). This site is added to the NPL based on an evaluation under the HRS. This site is being added to the NPL in a final rule published in the *Federal Register* in September 2004.

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## EXECUTIVE SUMMARY

Section 105(a)(8)(B) of CERCLA, as amended by SARA, requires that the EPA prepare a list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States. An original NPL was promulgated on September 8, 1983 (48 FR 40658). CERCLA also requires the EPA to update the list at least annually.

This document provides responses to public comments received on one site proposed on April 30, 2003 (68 FR 23094). This site is added to the NPL based on an evaluation under the HRS. This site is being added to the NPL in a final rule published in the *Federal Register* in September 2004.

The site addressed in this document is identified in the following table.

## SITES ADDRESSED IN THIS DOCUMENT

Region	State	Site Name	City	Proposal Date	HRS Score	
					Proposed	Final
2	NJ	White Swan Cleaners/Sun Cleaners Area Ground Water Contamination	Monmouth County	April 30, 2003	41.63	41.63

## INTRODUCTION

This document explains the rationale for adding one site to the NPL of uncontrolled hazardous waste sites and also provides the responses to public comments received on this site. The EPA proposed this site on April 30, 2003 (68 FR 23094). This site is added to the NPL based on an evaluation under the HRS. This site is being added to the NPL in a final rule published in the *Federal Register* in September 2004.

### Background of the NPL

In 1980, Congress enacted CERCLA, 42 U.S.C. Sections 9601 *et seq.* in response to the dangers of uncontrolled hazardous waste sites. CERCLA was amended on October 17, 1986, by SARA, Public Law No. 99-499, stat., 1613 *et seq.* To implement CERCLA, EPA promulgated the revised National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300, on July 16, 1982 (47 FR 31180), pursuant to CERCLA Section 105 and Executive Order 12316 (46 FR 42237, August 20, 1981). The NCP, further revised by EPA on September 16, 1985 (50 FR 37624) and November 20, 1985 (50 FR 47912), sets forth guidelines and procedures needed to respond under CERCLA to releases and threatened releases of hazardous substances, pollutants, or contaminants. On March 8, 1990 (55 FR 8666), EPA further revised the NCP in response to SARA.

Section 105(a)(8)(A) of CERCLA, as amended by SARA, requires that the NCP include

criteria for determining priorities among releases or threatened releases throughout the United States for the purpose of taking remedial action and, to the extent practicable, take into account the potential urgency of such action, for the purpose of taking removal action.

Removal action involves cleanup or other actions that are taken in response to emergency conditions or on a short-term or temporary basis (CERCLA Section 101(23)). Remedial action tends to be long-term in nature and involves response actions that are consistent with a permanent remedy for a release (CERCLA Section 101(24)). Criteria for placing sites on the NPL, which makes them eligible for remedial actions financed by the Trust Fund established under CERCLA, were included in the HRS, which EPA promulgated as Appendix A of the NCP (47 FR 31219, July 16, 1982). On December 14, 1990 (56 FR 51532), EPA promulgated revisions to the HRS in response to SARA, and established the effective date for the HRS revisions as March 15, 1991.

Section 105(a)(8)(B) of CERCLA, as amended, requires that the statutory criteria provided by the HRS be used to prepare a list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States. The list, which is Appendix B of the NCP, is the NPL.

An original NPL of 406 sites was promulgated on September 8, 1983 (48 FR 40658). At that time, an HRS score of 28.5 was established as the cutoff for listing because it yielded an initial NPL of at least 400 sites, as suggested by CERCLA. The NPL has been expanded several times since then, most recently on April 30,

2003 (68 FR 23077). The Agency also has published a number of proposed rulemakings to add sites to the NPL. The most recent proposal was on August 13, 2004 (69 FR 50115).

## **Development of the NPL**

The primary purpose of the NPL is stated in the legislative history of CERCLA (Report of the Committee on Environment and Public Works, Senate Report No. 96-848, 96th Cong., 2d Sess. 60 [1980]):

The priority list serves primarily informational purposes, identifying for the States and the public those facilities and sites or other releases which appear to warrant remedial actions. Inclusion of a facility or site on the list does not in itself reflect a judgment of the activities of its owner or operator, it does not require those persons to undertake any action, nor does it assign liability to any person. Subsequent government actions will be necessary in order to do so, and these actions will be attended by all appropriate procedural safeguards.

The purpose of the NPL, therefore, is primarily to serve as an informational and management tool. The identification of a site for the NPL is intended primarily to guide EPA in determining which sites warrant further investigation to assess the nature and extent of the human health and environmental risks associated with the site and to determine what CERCLA-financed remedial action(s), if any, may be appropriate. The NPL also serves to notify the public of sites EPA believes warrant further investigation. Finally, listing a site may, to the extent potentially responsible parties are identifiable at the time of listing, serve as notice to such parties that the Agency may initiate CERCLA-financed remedial action.

CERCLA Section 105(a)(8)(B) directs EPA to list priority sites among the known releases or threatened release of hazardous substances, pollutants, or contaminants, and Section 105(a)(8)(A) directs EPA to consider certain enumerated and other appropriate factors in doing so. Thus, as a matter of policy, EPA has the discretion not to use CERCLA to respond to certain types of releases. Where other authorities exist, placing sites on the NPL for possible remedial action under CERCLA may not be appropriate. Therefore, EPA has chosen not to place certain types of sites on the NPL even though CERCLA does not exclude such action. If, however, the Agency later determines that sites not listed as a matter of policy are not being properly responded to, the Agency may consider placing them on the NPL.



## Hazard Ranking System

The HRS is the principle mechanism EPA uses to place uncontrolled waste sites on the NPL. It is a numerically based screening system that uses information from initial, limited investigations -- the preliminary assessment and site inspection -- to assess the relative potential of sites to pose a threat to human health or the environment. HRS scores, however, do not determine the sequence in which EPA funds remedial response actions, because the information collected to develop HRS scores is not sufficient in itself to determine either the extent of contamination or the appropriate response for a particular site. Moreover, the sites with the highest scores do not necessarily come to the Agency's attention first, so that addressing sites strictly on the basis of ranking would in some cases require stopping work at sites where it was already underway. Thus, EPA relies on further, more detailed studies in the remedial investigation/feasibility study that typically follows listing.

The HRS uses a structured value analysis approach to scoring sites. This approach assigns numerical values to factors, that relate to or indicate risk, based on conditions at the site. The factors are grouped into three categories. Each category has a maximum value. The categories include:

- likelihood that a site has released or has the potential to release hazardous substances into the environment;
- characteristics of the waste (toxicity and waste quantity); and
- people or sensitive environments (targets) affected by the release.

Under the HRS, four pathways can be scored for one or more threats:

- Ground Water Migration ( $S_{gw}$ )  
- drinking water
- Surface Water Migration ( $S_{sw}$ )  
These threats are evaluated for two separate migration components (overland/flood and ground water to surface water).  
- drinking water  
- human food chain  
- sensitive environments
- Soil Exposure ( $S_s$ )  
- resident population  
- nearby population  
- sensitive environments
- Air Migration ( $S_a$ )  
- population  
- sensitive environments

After scores are calculated for one or more pathways according to prescribed guidelines, they are combined using the following root-mean-square equation to determine the overall site score (S), which ranges from 0 to 100:

$$S = \sqrt{\frac{S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2}{4}}$$

If all pathway scores are low, the HRS score is low. However, the HRS score can be relatively high even if only one pathway score is high. This is an important requirement for HRS scoring because some extremely dangerous sites pose threats through only one pathway. For example, buried leaking drums of hazardous substances can contaminate drinking water wells, but -- if the drums are buried deep enough and the substances not very volatile -- not surface water or air.

## Other Mechanisms for Listing

Aside from the HRS, there are two other mechanisms by which sites can be placed on the NPL. The first of these mechanisms, authorized by the NCP at 40 CFR 300.425(c)(2), allows each State and Territory to designate one site as its highest priority regardless of score.

The last mechanism, authorized by the NCP at 40 CFR 300.425(c)(3), allows listing a site if it meets all three of these requirements:

- Agency for Toxic Substances and Disease Registry (ATSDR) of the U.S. Public Health Service has issued a health advisory that recommends dissociation of individuals from the release;
- EPA determines the site poses a significant threat to public health; and
- EPA anticipates it will be more cost-effective to use its remedial authority than to use its emergency removal authority to respond to the site.

## Organization of this Document

The following section addresses site-specific public comments. The site discussion begins with a list of commenters, followed by a site description, a summary of comments, and Agency responses. A concluding statement indicates the effect of the comments on the HRS score for the site.

## Glossary

The following acronyms and abbreviations are used throughout the text:

<b>Agency</b>	U.S. Environmental Protection Agency
<b>ATSDR</b>	Agency for Toxic Substances and Disease Registry
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. Sections 9601 <i>et seq.</i> , also known as Superfund
<b>EPA</b>	U.S. Environmental Protection Agency
<b>HRS</b>	Hazard Ranking System, Appendix A of the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300
<b>HRS Score</b>	Overall site score calculated using the Hazard Ranking System; ranges from 0 to 100
<b>NCP</b>	National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300
<b>NPL</b>	National Priorities List, Appendix B of the NCP
<b>NPL-###</b>	Public comment index numbers as recorded in the Superfund Docket in EPA Headquarters and in Regional offices
<b>PA/SI</b>	Preliminary Assessment/Site Inspection
<b>PRP</b>	Potentially Responsible Party
<b>RCRA</b>	Resource Conservation and Recovery Act of 1976 (U.S.C. 9601-6991, as amended)
<b>RD/RA</b>	Remedial Design/Remedial Action
<b>RI/FS</b>	Remedial Investigation/Feasibility Study
<b>ROD</b>	Record of Decision, explaining the CERCLA-funded cleanup alternative(s) to be used at an NPL site
<b>SARA</b>	Superfund Amendments and Reauthorization Act of 1986, Public Law No. 99-499, stat., 1613 <i>et seq.</i>



## Region 2

### 1.1 White Swan Cleaners/Sun Cleaners Area Ground Water Contamination, Monmouth County, New Jersey

#### 1.1.1 List of Commenters/Correspondents

SFUND-2003-0009-0100	Comment dated March 8, 2002, from the Honorable James E. McGreevey, Governor of New Jersey
SFUND-2003-0009-0127	Comment dated June 13, 2003, from Samuel P. Moulthrop, Partner, Riker, Danzig, Scherer, Hyland, Perretti, LLP, for Fleet National Bank, Morristown, NJ
SFUND-2003-0009-0136	Comment dated June 26, 2003, from Stephen Caldwell, Director, US EPA State, Tribal & Site Identification Center, Washington, DC
SFUND-2003-0009-0140	Comment dated July 29, 2003, from Samuel P. Moulthrop, Partner, Riker, Danzig, Scherer, Hyland, Perretti, LLP, for Fleet National Bank, Morristown, NJ

#### 1.1.2 Site Description

The White Swan Cleaners/Sun Cleaners Area Ground Water Contamination site (herein referred to as the White Swan Cleaners/Sun Cleaners site) includes commingled contaminated ground water plumes from at least two sources located in a commercial/residential area of Wall Township, Monmouth County, New Jersey. The sources include the former White Swan Laundry and Cleaners, 1322 Sea Girt Avenue (a.k.a., Fleet Bank) and the former Sun Cleaners, 2213 Route 35 (a.k.a., 201 Manasquan Circle). The former Sun property is located approximately 0.3 mile southwest of the former White Swan property.

In August 1997, a resident of Magnolia Avenue in Wall Township informed the Monmouth County Health Department (MCHD) that ground water samples collected in 1990 from three private irrigation wells had exhibited concentrations of tetrachloroethylene (PCE) up to 1,546 parts per billion (ppb). The MCHD resampled the three irrigation wells, and sampled four additional irrigation wells. The analytical results indicated the presence of PCE in ground water at levels up to 595 ppb. The New Jersey Department of Environmental Protection (NJDEP) determined that three Sea Girt Municipal wells were at risk of contamination and sampled them for volatile organic compounds (VOC) on a monthly basis beginning in April 1999. No contamination was detected until September 1999, when PCE was detected in one of the wells at a concentration of 0.54 micrograms per liter (ppb).

In 1995-1996, Phase I and Phase II Assessments were conducted at Sun Cleaners. Areas of concern identified during these assessments included a steel 30-gallon drum and a steel 55-gallon drum, both located north of the Sun Cleaners building, and a discharge pipe that was connected to a PCE separator. Analytical results of soil samples collected during the Phase II Assessment indicated the presence of PCE at a concentration of 51 parts per million (ppm) in the vicinity of the 30-gallon drum and 8.2 ppm in the vicinity of the discharge pipe. A subsequent Environmental Site Investigation included the collection of

subsurface soil and ground water samples from borings advanced in the vicinity of the Sun Cleaners building. Analytical results from this investigation indicated the presence of PCE at concentrations up to 7,400 milligrams per kilogram (mg/kg) in subsurface soil and up to 200,000 µg/L in ground water. The highest PCE concentrations (in both soil and ground water) were detected near the 55-gallon drum.

In 1999, NJDEP initiated a ground water investigation in the area in an effort to identify responsible parties for the PCE ground water contamination. During this investigation, ground water samples were collected throughout the area. As a result of this investigation, White Swan Laundry and Cleaners and Sun Cleaners were identified as possible sources of the ground water contamination. Site Inspections (SI) were conducted by NJDEP at each of these facilities. Soil and ground water samples confirmed that a release of PCE had occurred at each of the sites. Based on the SI findings, White Swan Laundry and Cleaners and Sun Cleaners were identified as contributing sources of the area-wide ground water contamination.

In February 2001, the responsible party for White Swan Laundry and Cleaners (presently Fleet Bank) entered into a Memorandum of Agreement with NJDEP to conduct an SI and Remedial Investigation (RI) at the site. During this investigation, a septic system was identified. This system included an interconnected septic tank and seepage pit. Analytical results from an aqueous sample collected from the septic tank indicated the presence of PCE at a concentration of 7,200 µg/L. A soil sample collected from the bottom of the seepage pit indicated the presence of PCE at a concentration of 2,400 micrograms per kilogram (µg/kg). The septic tank and seepage pit were removed by Fleet in May 2001. During the removal, a larger septic system, said to consist of five interconnected cinder-block tanks, was encountered and subsequently removed. During site investigation and septic system removal activities, PCE was detected in ground water samples collected from monitoring wells at concentrations up to 84,000 µg/L on the White Swan Cleaners property.

An observed release of PCE to ground water is documented by the chemical analyses of ground water samples collected from direct-push method borings during the NJDEP SIs conducted at the White Swan Cleaners and Sun Cleaners properties. An observed release of PCE to ground water is also documented by the chemical analyses of ground water samples collected from monitoring wells located on the White Swan Laundry and Cleaners operation. In addition, an observed release of PCE to ground water is documented by the chemical analyses of aqueous samples collected in 1999 and 2000 from a municipal well (i.e., Well #6) operated by the Borough of Sea Girt. On each occasion, contamination was documented for this well, which served an approximate population of 1,170 people at the time of the initial release. Drinking water within the site's 4-mile radius is obtained from public supply wells and private wells screened in the Kirkwood-Cohansey Aquifer System, which is the aquifer of concern. In addition, several wellhead protection areas exist within the 4-mile target distance limit. Other areas of environmental concern include indoor air quality of nearby homes and commercial facilities, and contaminated ground water discharges to nearby surface water bodies.

### **1.1.3 Summary of Comments/Correspondence**

The Honorable James E. McGreevey, Governor of New Jersey, supported the listing of the White Swan Cleaners/Sun Cleaners site on the NPL.

Mr. Samuel P. Moulthrop, of Riker, Danzig, Scherer, Hyland, Perretti, LLP, responding on behalf of Fleet National Bank (herein referred to as Fleet), commented against listing the White Swan Cleaners/Sun Cleaners site on the NPL. Initially Fleet requested an extension of the comment period due to the

complexity of their investigation and incomplete data compilation. At the time of its comments, Fleet also requested a meeting “with EPA representatives to discuss [its] on-going work [at the site], as well as offer additional site-specific data,” that it believed may aid EPA in determining the extent of contamination at the site. Mr. Stephen Caldwell, Director, US EPA State, Tribal & Site Identification Center responded to Fleet’s request for a thirty day extension.

To support Fleet’s position against listing, Fleet stated that EPA did not follow its aggregation policy or consider removals performed at the site prior to listing. Also Fleet stated that EPA has made errors in scoring with respect to the site name, source characterization, and possible confining layers within the aquifer in the area of the site. Finally, Fleet asserted that listing the site will not provide a single remediation technique or process.

### **1.1.3.1 Request for Extension and Meeting with Agency**

Fleet requested a 30 day extension of the comment period because its “investigation . . . proved to be complex, and our own data compilation [was] not yet complete.” Fleet requested the extension so that it could “provide the most meaningful possible comments on USEPA’s proposed listing.” Fleet also requested a meeting “with EPA representatives to discuss [its] on-going work [at the site], as well as offer additional Site-specific data,” that it asserted may have aided EPA in determining the extent of contamination at the site.

In response, a 60-day comment period followed publication in the Federal Register of the proposed NPL rule of which this site is a part. The initial comment period for this rule ended on June 30, 2003. However, the Agency extended the comment period an additional 30 days, as requested by Fleet, after the initial comment period closed. The extended comment period ended on July 30, 2003. In a letter dated June 26, 2003, Mr. Stephen Caldwell, Director, US EPA State, Tribal & Site Identification Center, responded to the request by saying “[t]o allow sufficient time for review of the data supporting the Hazard Ranking System score, the Agency is extending the public comment period for the White Swan Cleaners/Sun Cleaners Area Groundwater Contamination site for 30 days.” Mr. Caldwell invited Fleet to submit their comments before July 30, 2003 so that they could, “be addressed, and their impacts on the score calculated, before a final decision is reached,” about placing the site on the NPL. Mr. Caldwell also informed Fleet that, “EPA’s responses to all timely comments regarding this site will be provided in a ‘Support Document’ that will be available to the public at the time a final decision is made.” The Agency is responding to all site-specific comments in this Support Document, which is available in the EPA Headquarters Superfund docket in Washington, D.C., and in the appropriate Regional Superfund Docket when the final rule is published in the Federal Register.

Regarding Fleet’s request for a meeting with the Agency to discuss on-going work at the site, EPA representatives met twice with Fleet, on February 4, 2004, and again on August 3, 2004. In addition, the Agency has been in regular communication with Fleet (now the Bank of America) throughout this period beginning in February 2004.

### **1.1.3.2 Support for Listing**

The Honorable James E. McGreevey, Governor of New Jersey, requested that the US EPA propose the White Swan Cleaners/Sun Cleaners site to the NPL. He stated that “the scope and magnitude of the environmental issues qualifies the site for listing on the NPL.” He further commented that the “decision to request listing of the ‘White Swan Cleaners Water Contamination Project’ on the NPL is based on the

extensive plume of ground water contamination documented in the Wall Township and Sea Girt Borough area.”

In response, EPA has added White Swan/Sun Cleaners Area Ground Water Contamination site to the NPL. Listing makes a site eligible for remedial action funding under CERCLA, and EPA will examine the site to determine what response, if any, is appropriate. Actual funding may not necessarily be undertaken in the precise order of HRS scores, however, and upon more detailed investigation may not be necessary at all in some cases. EPA will determine the need for using Superfund monies for remedial activities on a site-by-site basis, taking into account State priorities, further site investigation, other response alternatives, and other factors as appropriate. EPA will not stop work at some sites to begin work at other higher-scoring sites added to the NPL more recently.

### **1.1.3.3 Aggregation**

Fleet stated that EPA should evaluate the White Swan site separately from the Sun Cleaners site “based upon analysis of its [EPA’s] aggregation policy.” Fleet commented that “EPA has articulated a strong presumption that NPL sites should be scored and listed separately.” Fleet summarized the policy’s evaluation criteria as follows:

1. [w]hether the sites are part of the same operation or comprise a single unit;
2. [w]hether the potentially responsible parties are generally the same for each site;
3. [w]hether the contamination from each site is threatening the same environmental resource; and
4. [t]he distance between the sites and whether the target population (within three miles of the site) is essentially the same for both sites.

Fleet cited a statement from the DC Circuit Court regarding the *Linemaster Switch Corp. v. EPA*, 938 F.2d 1299, 1309 (D.C. Circuit 1991) decision that stated “that the aggregation factors cited above are a ‘non-exhaustive list of factors relevant to . . . an aggregation question’” when deciding whether or not to aggregate “non-contiguous sites for NPL listing.” The commenter stated that the above listed criteria and “certain practical considerations regarding the status of the White Swan site,” as well as the speed and efficiency at which Fleet has conducted remedial activities, give adequate cause for the White Swan site to be “considered independently of the Sun Cleaners site,” and that “the sites should be scored and, if applicable, listed separately.”

In response, the White Swan Cleaners/Sun Cleaners site is a single site composed of a single ground water contamination area caused by the commingled release of chlorinated solvents from at least two operations which is placing 1,170 people at risk who use the ground water as their drinking water supply. This site is not an aggregation of non-contiguous sites and the HRS evaluation is focused on the risk posed to these people by the commingled ground water contamination from the two sources.

Secondly, the aggregation policy discussed by Fleet was not relied upon in the development of the proposed listing of the White Swan Cleaners/Sun Cleaners site; nor is it relevant to EPA’s final listing decision. EPA no longer uses the aggregation policy referred to by Fleet to justify aggregating non-contiguous sites in light of the decision in *Mead v. Browner* (U.S. Court of Appeals for the D.C. Circuit in *Mead Corporation v. Browner*, 100 F.3d 152 (D.C. Cir. 1996)). Furthermore, the aggregation policy applied only to the aggregation of non-contiguous sites. Even if the ground water contamination emanating from these two operations were considered separate sites (which they should not be for the



reasons discussed above), the plumes clearly commingled and, thus, the sites would be considered contiguous.

The rationale for why this site is a single site is clearly stated in the support material for the proposed site listing. The Site Summary (contained in the HRS Documentation record as proposed) states that the site is composed “of overlapping contaminated ground water plumes from sources located on two properties.” Page 22 of the HRS documentation record explains that releases of PCE from these sources commingle to form a ground water plume that has been detected in a municipal well (Well #6), screened in the Kirkwood-Cohansey Aquifer System, at levels significantly above background (See page 22 of HRS documentation record as proposed). The initial convergence of the two plumes takes place approximately one quarter of a mile southeast of the White Swan Cleaners as can be seen when viewing a map of the ground water contamination associated with the Sun Cleaners operation (Exhibit 2 to Fleet’s July 29, 2003 comment, SFUND-2003-0009-0140, and Maps 11 and 12 of Reference 20 of the HRS documentation record as proposed) and a map of the ground water contamination associated with the White Swan Cleaners operation( page 5 of Reference 28 of the HRS documentation record as proposed). Both sources appear to be contributing to the contamination in the Sea Girt municipal wells and need to be further examined. Also the commingled plumes places 1,170 people at risk who use these wells to obtain their drinking water. Furthermore, the remediation of the ground water contamination will require a coordinated response strategy addressing both of the dry cleaner operations.

Fleet’s comments that interpret the proposed listing of the White Swan Cleaners/Sun Cleaners site on the NPL as a misapplication of EPA’s aggregation policy or EPA guidance are presented and responded to in more detail below and in sections 1.1.3.3.1 - 1.1.3.3.4 of this support document. As stated above, the White Swan Cleaners/Sun Cleaners site is a single site that includes a ground water contamination area and the sources of that contamination. The aggregation policy referenced in the comments was originally published in the preamble to the initial NPL (48FR 40663, September 8, 1983). The policy briefly discussed circumstances under which the Agency might treat two or more non-contiguous facilities as one for purposes of NPL listing. In the present case, however, the aggregation policy was not relied upon in the development of the proposed listing of the White Swan Cleaners/Sun Cleaners site; nor is it relevant to EPA’s final listing decision.

EPA had no need to consider the aggregation policy to justify treating the two former dry cleaning operations as sources that are part of a single site. Rather, the Agency relies on the HRS definition of site, in Section 1.1 of the HRS, as: “where a hazardous substance has been deposited, stored, disposed, or placed, or has otherwise come to be located. Such areas may include multiple sources and may include the area between sources” [emphasis added]. A source is defined as “[a]ny area where a hazardous substance has been deposited, stored, disposed, or placed, plus those soils that have become contaminated from migration of a hazardous substance.” Both the White Swan Cleaners operation and the Sun Cleaners operation meet the definition of a source for HRS purposes. Further, as explained in the preamble of the federal register notice that proposed this site for listing, an NPL site “consists of all contaminated areas within the area used to identify the site, as well as any other location to which that contamination has come to be located or from which that contamination came.” White Swan and Sun Cleaners have both been identified as sources “from which the [ground water] contamination came” and, thus, are part of the same site. See also *Washington State Department of Transportation v. EPA*, (917 F.2d. 1309, 1310 (D.C. Circuit 1990)) (An NPL site includes later identified sources of the contamination.) An observed release of hazardous substances has been attributed to each source as demonstrated in pages 16-20 of the HRS documentation record as proposed.

Although the comments summarized in this section concerning application of the criteria in the former aggregation policy are not relevant because this site is not an aggregation of non-contiguous facilities, sections 1.1.3.3.1 - 1.1.3.3.4 of this support document explain why application of the criteria do not undercut including the two sources of ground water contamination as part of the same site.

Regarding Fleet's statement that its remedial activities should be taken into consideration and that White Swan Cleaners should be removed as part of the site, see section 1.1.3.5 of this support document, *Removals*, for a detailed discussion of this issue.

### **1.1.3.3.1 Similar Operations**

According to the commenter, with regard to the *Linemaster Switch v. EPA* decision, the first criterion cited above (i.e., whether the sites are part of the same operation or comprise a single unit) has been identified as the most important factor for aggregation. The commenter stated that “[t]ypically, when non-contiguous sites are part of the same operations, the means of disposal is likely to be similar.” Therefore, the operations at the two sites “were clearly separate and distinct.” The commenter’s basis for this statement was that the methods of dry cleaning at the two sites have not been shown to be the same and that the discharges of hazardous substances were caused by different operations. Fleet added that the years of operation, 31 years for Sun Cleaners and 19 years for White Swan, were not concurrent and that an additional 12 years of operation occurred at Sun Cleaners.

In response, as noted above, the aggregation policy was not relied upon by EPA and is not relevant to EPA’s listing decision. However, EPA notes that sources that contribute to the same contamination (in this case a single plume of contaminated ground water) are part of the same site regardless of whether they are or were part of the same operations.

### **1.1.3.3.2 Similar Owner/Operator**

Fleet stated that there has been no information provided to show that the owners and/or operators of the two sites are similar or related. The commenter identified additional sites and PRPs (provided in Exhibit 1 to the comment letter) that it asserted may be contributing to the contamination at the site.

In response, as noted above, the aggregation policy is not relevant to EPA’s listing decision. Further, sources contributing to a commingled plume of contamination need not be owned or operated by the same parties to be considered part of one site. In fact, as noted above, EPA’s longstanding policy on the scope of an NPL site suggests otherwise. A site “consists of all contaminated areas within the area used to identify the site, as well as any other location to which that contamination has come to be located or from which that contamination came.”

Regarding the additional possible sources of PCE contamination in the area of the site (Exhibit 1 provided by the commenter), EPA addresses this issue below in section 1.1.3.7 of this support document, *Additional Sources*.

### **1.1.3.3.3 Similar Contamination and Similar Targets**

Fleet claimed that discharges from the Sun Cleaners and White Swan Cleaners sites impact different media and targets. The commenter stated that Sun Cleaners immediately impacts Judas Creek, which separates the two sites, as well as soil and ground water, whereas the White Swan site does not. Fleet

claimed that, according to historical data from the White Swan site, the ground water flow direction was documented as east-northeast. Because Judas Creek is located 600 feet south of the White Swan site, the commenter asserted that Judas Creek could not be impacted by the White Swan site and that the “hydrologic conditions of Judas Creek do not have the potential to impact the near-source ground water flow regime of the White Swan site.” The commenter contended that the NJDEP investigation demonstrated “that Judas Creek does not impede ground water flow from Sun Cleaners” because contamination was documented on the other side of the creek. However, it also asserted that the “hydraulic conditions of Judas Creek may impact the near-source ground water flow regime of the Sun Cleaners site.”

Fleet stated that there was “little . . . data available for the Sun Cleaners site when compared to the extensive data already collected at the White Swan site,” and that the “delineation of the Sun Cleaners site is complex.” The commenter provided analytical data from a ground water sample that was used to document that the highest level of PCE (200,000 ppb) at the Sun Cleaners site is 100% higher than levels at the White Swan site. A surface water sample, collected downgradient of the Sun Cleaners, from Judas Creek was also provided and found to contain “over 1 part per million of PCE.” Fleet commented that “the effect of Judas Creek on the migration of PCE from the Sun Cleaners site has not been investigated.” In fact, “PCE may migrate in the surface water and recharge closer to the Sea Girt Municipal Well.” Fleet concluded that when “the elevated PCE concentration, the ground water flow direction, the effect of Judas Creek and the incomplete nature of the data” are considered, “it is possible that the contamination discovered in the municipal well is primarily due to the Sun Cleaners site or other potential sources, including the Department of Public Works site that is located above the well.” Fleet asserted that due to “the absence of data,” it was “premature to conclude that White Swan is a contributor to the well contamination much less a primary contributor.” The commenter concluded that the “majority of the HRS score may not be a valid representation of the impact caused by the White Swan site” due to the fact that the “high HRS score for the combined site is primarily derived from the impact to the Sea Girt Municipal Well.”

In response, EPA evaluated the impact of the two sources on the ground water within the area of the site. More specifically, the HRS score is based on releases of PCE from both sources into the Kirkwood-Cohansey Aquifer System in which the Sea Girt municipal wells are located. Analytical data cited in the HRS documentation record as proposed, on pages 17 through 22, indicated that both the White Swan Cleaners and Sun Cleaners have contributed to the ground water contamination. Source specific background sample locations were selected for the White Swan Laundry and Cleaners source during the 2002 site inspection conducted by the NJDEP. The background samples were taken at four discrete depth intervals from a location in the parking area on the southwest, upgradient portion of the property. As indicated on page 17 of the HRS documentation record as proposed, PCE was detected in the shallowest depth interval at the background location (20 -24 feet below ground surface) at a concentration of 2 microgram per liter ( $\mu\text{g/L}$ ) and was below detection at all other intervals. Contrasted with these samples was a series of sample locations (at a variety of depth intervals) from the northeast, downgradient side of the property that displayed PCE concentrations ranging from 100 to 670  $\mu\text{g/L}$ .<sup>1</sup> This pattern was consistent with sampling conducted for Summit Bank (a predecessor to Fleet) in 2000 when PCE was measured at the extreme eastern corner of the property at 84,000  $\mu\text{g/L}$  versus only 13  $\mu\text{g/L}$  at a location directly south of the bank building (see pages 18-19 of the HRS documentation record at proposal).

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<sup>1</sup>PCE concentrations in these wells were so high they exceeded the calibration range and had to be diluted in order for the analysis to be performed.

At the Sun Cleaners source, the background samples were taken from three depth intervals from sampling location GW-5 to the west of the site on adjacent property, and PCE was below detection limits at all intervals. Contaminated samples ranged from low concentrations at a location directly south of the Sun Cleaners building to a high of 910 µg/L directly north of the building and 450 µg/L at monitoring wells GW-3 and GW-4 located to the east and northeast on the property (see page 20 of the HRS documentation record at proposal and reference 8 as cited).

The HRS documentation record as proposed indicates on page 23 that “[i]nvestigations by NJDEP and MCHD also provide evidence that contaminated ground water is migrating east from both sources, and that the plumes commingle prior to reaching the Sea Girt public supply wells. NJDEP collected off-site direct-push ground water samples in the vicinity of both sources. The analytical results indicate that contaminant plumes extending east-northeast from both sources are separated by a clean zone at the Sea Girt Mall. . .” Sample locations and analytical results for these samples are provided in reference 20 to the HRS documentation record, *Project Note to White Swan Cleaners/Sun Cleaners Area Ground Water Contamination file, Subject: Migration of PCE from Sun Cleaners and White Swan Laundry and Cleaners*, July 12, 2002. These samples indicate a large area of ground water contamination extending from the sources toward the Sea Girt municipal wells. It can be seen from these samples that an area north of Sun Cleaners and east and south of the Sea Girt Mall (sample locations GW-1, GW-5, GW-10, and GW-11) exhibited no detections of PCE, suggesting that separate plumes spread eastward from the two sources before merging farther downgradient of the sources but well upgradient of the municipal wells.

The population using the Sea Girt public supply well #6 as a drinking water supply is clearly at risk due to the releases from both sources migrating to this well, though the relative contribution of each source has not been quantified. There is also a potential risk that the contamination could migrate to other Sea Girt supply wells (page 68 of the HRS documentation record at proposal). Furthermore, Fleet has not denied that a release to ground water from the White Swan operation has occurred, and is contributing to ground water contamination within the area of the Site. Given that both sources contribute to contamination affecting common targets, the risk to those targets would not be abated by remediating each source and the release from each separately. If only the Sun Cleaners source, which Fleet claims contributes higher concentrations of hazardous substances to the ground water plume, were remediated, the release from the former septic tank at the White Swan Cleaners source would continue to release contaminants to the ground water and impact targets.

Regarding Fleet’s comment that “hydraulic conditions of Judas Creek may impact the near-source ground water flow regime of the Sun Cleaners site,” this issue is addressed in reference 21 to the HRS documentation record as proposed. Mr. Robert Fowler, a Hazardous Site Mitigation Specialist II with the NJDEP Division of Publicly Funded Site Remediation, Bureau of Site Assessment, reported that Judas Creek “was the size of a small drainage ditch which was not cut very deep” (reference 21 to the HRS documentation record as proposed, page 1). In addition, PCE contamination has been identified at depth on both sides of this creek that is not attributable to any other known source. While Judas Creek may be impacted by the Sun Cleaners operation and may be an exposure pathway of concern, it does not appear to have any substantial affect on the ground water flow regime in the area of the Site.

Also, Fleet stated that Judas Creek is only impacted by the Sun Cleaners source while the White Swan source has not influenced it in any way, nor does the creek influence the ground water conditions at the White Swan location. EPA did not evaluate possible releases into Judas Creek when developing the HRS scoring package for this site. The releases from the Sun Cleaners operation and the White Swan operation

have both been shown to have contributed to the ground water contamination in the Kirkwood-Cohansey Aquifer System. Contamination of an additional pathway by one or both sources was not evaluated; however, EPA does not deny the possibility of such contamination. In fact, on the HRS Documentation Record Review Cover Sheet, EPA noted that surface water migration and other migration or exposure pathways besides ground water were of concern at this site. In the section on this sheet titled "Pathways, Components, or Threats Not Scored," EPA explained:

Within the target distance limit (TDL), there are several drinking water wells subject to potential contamination that were not scored because their inclusion would not have an impact on a listing decision.

Available information indicates that PCE was detected in air samples collected from basements of nearby homes and businesses. In addition, PCE was detected in surface water and sediment samples collected from nearby surface water bodies. Although the site may pose a threat to targets within the Surface Water and Air Pathways, these threats were not scored because the pathway scores would not have an impact on a listing decision.

Soil exposure threats were not scored due to the lack of targets within 200 feet of observed surface soil contamination.

Furthermore, EPA notes that the extent of the contamination need not be fully determined at the NPL listing stage. This is because EPA has not completed enough sampling to determine the exact extent of contamination, and also because contamination generally continues to spread over time.

The HRS does not require scoring all possible modes of contaminant transport pathways at a site all four pathways, if scoring those pathways does not change the listing decision. For some sites, data for scoring a pathway are unavailable, and obtaining these data would be time-consuming or costly. In other cases, data for scoring some pathways are available, but will only have a minimal effect on the site score. In still other cases, data on other pathways could substantially add to a site score, but would not affect the listing decision.

To the extent practicable, EPA attempts to score all pathways that pose significant threats. If the contribution of a pathway is minimal to the overall score, in general, that pathway will not be scored. In these cases, the HRS documentation record may include a brief qualitative discussion to present a more complete picture of the conditions and hazards at the site. As a matter of policy, EPA does not delay listing a site to incorporate new data or score new pathways, if the listing decision is not affected.

EPA must balance the need to fully characterize a site with the limited resources available to collect and analyze site data. For this reason, the EPA generally will not score additional pathways upon receiving new data as long as the site still meets the HRS cutoff score. However, any additional data characterizing site conditions could provide useful information during the RI.

The HRS is intended to be a "rough list" of prioritized hazardous sites; a "first step in a process--nothing more, nothing less" Eagle Picher Indus. v. EPA, 759 F.2d 922, 932 (D.C. Cir. 1985) (Eagle Picher II). EPA would like to investigate each possible site completely and thoroughly prior to evaluating them for proposal for NPL, but it must reconcile the need for certainty before action with the need for inexpensive, expeditious procedures to identify potentially hazardous sites. The courts have found EPA's approach to

solving this conundrum to be "reasonable and fully in accord with Congressional intent. "Eagle Picher Industries, Inc." v. EPA, (759 F.2d 905 (D.C. Cir. 1985) Eagle Picher I).

#### **1.1.3.3.4 Proximity/Location**

With regard to the fourth criterion cited by the commenter (whether sources are situated sufficiently close to each other that they affect the same or substantially overlapping targets), Fleet stated that the proposed site consists of two identified sources and many unidentified sources located on non-contiguous properties and that the White Swan and Sun Cleaners sites were over a quarter of a mile apart.

In response, while the properties themselves are not contiguous, the contamination that has migrated from these operations commingles to contribute to a single area of ground water contamination. The initial convergence of the two plumes takes place approximately one quarter of a mile southeast of White Swan as can be seen when viewing a map of the ground water contamination associated with Sun Cleaners (Exhibit 2 to Fleet's comment) and a map of the ground water contamination associated with the White Swan Cleaners (page 5 of Reference 28 of the HRS documentation record as proposed). As defined in HRS section 1.1, a site is "where a hazardous substance has been deposited, stored, disposed, or placed, or has otherwise come to be located. Such areas may include multiple sources and may include the area between sources" [emphasis added]. Therefore, Sun Cleaners and White Swan are considered sources of contamination at the White Swan Cleaners/Sun Cleaners site.

#### **1.1.3.4 Site Name**

Fleet claimed that if EPA's decision to list is not reversed, then the name of the site should be changed for several reasons. It recommended that the name of the proposed site be either the Sea Girt Ground Water Site or the Sun Cleaners/White Swan site. Fleet stated that the affected parties will suffer adverse consequences as a result of the NPL listing, such as loss of property value, damage to business reputation and other consequences, as cited in the cases of Board of Regents of the University of Washington v. EPA, 86 F.3d 1214, 1217 (D.C. Cir. 1996) and SCA Services of Indiana v. Thomas, 634 F.Supp. 1355, 1361-66 (N.D. Ind. 1986). Fleet was also concerned about the negative result of listing a site on the NPL because it had "no connection to the operations that . . . caused the contamination." Fleet contended that if the White Swan name is used as part of the site name it should be listed last because that is alphabetically correct. The commenter asserted that the site "includes source areas that are completely unrelated in every respect, including operationally and geographically, from the White Swan site," and that to name it the White Swan/Sun Cleaners site was misleading as "EPA recognizes, there are other source areas that are contributing to the ground water contamination not just White Swan and Sun Cleaners sites." Fleet also stated that because the majority of the contamination was from the Sun Cleaners site, Sun Cleaners should be listed first with respect to the "magnitude of impact."

In response, the naming of the site does not reflect a judgment of the activities of the owner or operator of a site. It does not require those persons to undertake any action, nor does it assign liability to any other person. The order in which the sources are identified in the site name does not imply any greater responsibility for the contamination for the source listed first. Further, the Agency sees no reason for changing the site name. EPA prefers names that accurately reflect the location or nature of the problems at a site and that are readily and easily associated with a site by the general public. The White Swan Cleaners and Laundry operated from 1964 to 1983. "Prior to 1986, all discharges were to an on-site Septic System" (see page 1 of Reference 6 of the HRS documentation record as proposed). The septic system (Source 1) ". . . was [used] during the dry cleaning operations on site and received all discharges

until the facility was connected to the public sewer system in 1986" (HRS Documentation Record as proposed, page 7). A Site Inspection (SI) was conducted by NJDEP at the operation and a confirmed release of PCE was documented. Therefore, White Swan Laundry and Cleaners, in addition to Sun Cleaners, was identified as contributing to the area-wide ground water contamination through the findings of the SI. EPA contends the site's present name reflects the primary sources of the contamination at the site.

Regarding Fleet's comment that the name of the site is misleading because there are other source areas that are contributing to the ground water contamination, other possible sources at the site are addressed in section 1.1.3.7 of this support document, *Additional Sources*.

### **1.1.3.5 Removals**

Fleet stated that there are "inconsistencies with established rule and policy in the calculation of the Hazard Ranking System . . . score that may impact EPA's decision to list all or a portion of the Site." Fleet claimed it has performed two removals at the White Swan site that were not considered in the HRS scoring. Fleet asserted that in May 2001, it "removed the newer septic tank and seepage pits," and in December 2001, it "removed the 'original' septic/adsorption system used by White Swan cleaners." In addition to these removal actions at the White Swan site, Fleet, "in its continuing effort to take due care with respect to the contamination," has conducted a soil venting pilot study, has installed ground water monitoring wells, and is "assessing options to address any remaining contaminated soil and associated ground water at the White Swan site." Through these efforts and additional investigations, Fleet "has collected a large amount of environmental data regarding the White Swan site." The commenter claimed that "EPA must consider the removal actions that Fleet undertook at the White Swan site" (e.g., the removal of the septic tank and seepage pits) when scoring the waste quantity of the site.

Fleet asserted that according to the revised HRS, "EPA should take prior removal actions into consideration during source characterization for purposes of calculating a site's waste quantity." The commenter cited the HRS guidance manual (page 41) in that deficiencies in the source information "have a significant impact on the site score." Fleet cited the preamble to the HRS which states that "EPA should score a site based upon the site conditions existing at the time the federal Site Inspection . . . is initiated" and that the following three requirements qualify a removal for NPL purposes "and should be considered in scoring a site for the NPL": (1) "the removal action must remove waste from the site," (2) "the removal must occur prior to the applicable cut-off date," and (3) "all materials removed must be properly disposed of." Fleet claimed that its removals qualify according to the above criteria. It indicated that prior to the revised HRS, "the HRS scoring procedure only considered a site's condition before any action was taken in response to a threatened or actual release of hazardous materials" (55 FR 51567). However, the revised HRS allows the evaluation of the site based on conditions that exist at the time the site investigation is initiated.

To meet the first and third of the three criteria of a qualifying removal, Fleet asserted that waste was physically removed from the site during the 2001 removals and disposed of properly as detailed in the Septic Tank Excavation Ground Water Sampling Report prepared by Groundwater & Environmental Services, Inc. (GES) and submitted to NJDEP on August 9, 2001, and in the Remedial Investigation Addendum Report, dated March 21, 2002, which was submitted to EPA on April 2, 2002 (both reports were submitted as Exhibits 2 and 3 of Fleet's comment letter). The commenter stated that the statement on page 7 of the HRS documentation record as proposed "recognizes that the (sic) both systems were

removed,” but the commenter disagrees that “specific information and analytical data regarding the removal of [the original] system are not available.”

Fleet asserted that it met the second criterion, that the removal activity must have occurred before a specific cut-off date, because the cut-off date with respect to the White Swan site was February 2002. It stated that “EPA will not consider removals conducted after a SI has commenced.” The commenter based the date on the fact that the date can be no later than the beginning of an SI, usually signaled by the development of a work plan, and that there was no work plan known to Fleet prior to February 2002. This date was derived based on page 2 of the EPA fact sheet, *The Revised Hazard Ranking System: Evaluating Sites After Waste Removals*, October 1991. Fleet also cited the fact sheet in that it states that “if no work plan has been produced, the cutoff date ‘is the earliest documented date for Superfund SI activities’” and not the date of a State or PRP SI that has been conducted independently of CERCLA/SARA. Fleet emphasized that “the cutoff date is based on the date these data are collated for Superfund SI purposes.” (See page 2 of the EPA fact sheet, *The Revised Hazard Ranking System: Evaluating Sites After Waste Removals*, October 1991) Fleet concluded that “[i]n January 2002, after the removal, the matter was transferred to EPA” and, therefore, sampling performed by the NJDEP and Fleet did not qualify as a Superfund SI.

In response, EPA’s policy is to consider certain removal actions in the HRS scoring of a site to increase incentives for rapid response actions at sites. The preamble to the HRS discusses consideration of such removal actions in the assignment of HRS scores (Section Q of the preamble of the HRS, 55 FR 51568, December 14, 1990). According to Section Q, EPA will generally calculate waste quantities based on “current conditions,” which may differ from initial conditions, as the result of a response action; however, the preamble notes that this approach should ensure that “the HRS score reflects any continuing risk at sites where contamination occurred prior to any response action” and that “the accuracy of this approach depends on being able to determine with reasonable confidence the quantity of hazardous constituents remaining in sources at the site and the quantity released to the environment.” The preamble further states that removal actions generally may not reduce waste quantity factor values unless the quantity of hazardous constituents remaining in sources and in releases can be estimated with reasonable confidence and that, generally, EPA will expect the parties undertaking removal actions to provide any data needed to support a determination of the quantity of hazardous constituents remaining.

The 1991 guidance cited by the commenter was revised in 1997 to allow “certain types of post-SI removal completions (removals completed any time before the site is proposed to the NPL) in preparing HRS scoring packages.” (OSWER Directive # 9345.1-25, April 4, 1997)

At the White Swan Cleaners/Sun Cleaners site, the septic tank and seepage pit removals conducted in May and December 2001 (Source 1) succeeded in removing the mechanical workings and physical structure of the former septic system, they were completed before the cut-off date or suspected cut-off date, and the waste materials were properly removed and disposed of off-site. Because of this, Fleet asserts that it has met the criteria for EPA to consider the removal action when scoring the site; however, contamination associated with the septic system remains, in addition to contamination that has migrated from the source. These removals action would not affect the hazardous waste quantity value used to score the site as is explained on pages 3-5 of the 1991 removal policy. The 1991 policy notes that there are four methods (tiers) for evaluating hazardous waste quantity (Tier A, hazardous constituent quantity; Tier B, hazardous wastestream quantity; Tier C, volume; and Tier D, area), and explains that, if any of the last three tiers are evaluated for any source for the pathway, the hazardous waste quantity factor value for that migration pathway is subject to minimum values. The policy goes on to explain that, whether or not



qualifying removals have been conducted at a site, if there are Level I or Level II targets, the minimum hazardous waste quantity factor value for that pathway is 100. The evaluation of hazardous waste quantity at the White Swan Cleaners/Sun Cleaners site was consistent with this policy and with the HRS itself.

As explained on page 25 of the HRS documentation record as proposed, the hazardous waste quantity value of 100 was not based on the quantity of hazardous substances attributed to the individual sources, but rather to the provision in HRS Section 2.4.2.2, *Calculation of hazardous waste quantity factor value*, which instructs:

If any target for that migration pathway is subject to Level I or Level II concentrations . . . assign either the value from Table 2-6 or a value of 100, whichever is greater, as the hazardous waste quantity factor value for that pathway.

As reported on pages 26 and 27 of the HRS documentation record at proposal, 1,170 persons, those served by Sea Girt municipal well #6, were considered to be exposed to Level II concentrations of PCE. As a result, the hazardous waste quantity factor value of 100 was correctly assigned. Further, the removals do not impact any other component of the site score.

### **1.1.3.6 Remediation Techniques and Processes**

Fleet stated that “[d]ifferent parts of the aquifer are impacted near source and,” therefore, “different remedial strategies would be employed to address the near-source ground water plumes.” The “near-source hydraulic conditions” and the “impact to Judas Creek from the Sun Cleaners site” make the assessment of possible remedial efforts at the Sun Cleaners site more complex and may impede progress of a remedy for the Site as proposed.” The commenter contended that the combination of the White Swan and Sun Cleaners sites will delay the remedial process because of the lack of data from the Sun Cleaners site and its influence on Judas Creek. Fleet claimed that if “any plume that originates from the White Swan site co-mingles at some downgradient point with a plume from the Sun Cleaners site,” then “EPA is not precluded from addressing the remedy of that area together, even if the sites are considered independently for NPL listing purposes.” Furthermore, the remediation of the downgradient area may use different remedial techniques “(possibly even natural attenuation)” than those performed at other “near source areas.”

In response, these comments pertain to future remediation efforts at this site and, as such, are not relevant to the listing decision. Listing is based on the application of the HRS in evaluating the relative risk posed by the contamination at the site. Long-term remediation at this site has yet to be determined, and remedial alternatives will be evaluated during the RI/FS stage of the process. Different remedial strategies are often employed at different parts of one NPL site. As discussed above, the sources at the White Swan and Sun Cleaners are appropriately considered part of the same NPL site.

### **1.1.3.7 Additional Sources**

Fleet stated that EPA acknowledged other possible sources of PCE contamination in the area of the site and that additional sources could possibly be contributing to the contamination in the municipal wells. It cited the distance between the Sea Girt Municipal Wells (over a mile away) and the White Swan site and the absence of data that would conclusively establish a direct connection with the White Swan site and the contaminated municipal wells as the reason that the “HRS score may be faulty.” Fleet asserted that, by

aggregating “only these two sites, other sources of regional contamination may be ignored” and that “other potential sources and associated responsible parties should be identified and included in the quantitative HRS scoring process.” Fleet provided a list of other possible sources of the contamination within 1 mile of the site, within the vicinity and within the Well Head Protection area of the Sea Girt Municipal wells. Fleet also claimed that there were other sources of PCE within the area that the EPA did not investigate and, therefore, cannot rule out as possible sources. Fleet stated that “[i]f the NPL listing is to include all sources contributing to the regional PCE contamination, these additional potential sources must also be addressed.” Further, it asserted that preliminary investigations at these facilities “do not address the nature and extent of PCE contamination attributable to each facility.”

In response, EPA agrees that there may be additional possible sources of the contamination that exists at the site. The HRS documentation record as proposed identified 13 additional potential sources that may be contributing to the contaminated ground water plume (pages 13-14). However, this list may not be complete and, if necessary to reduce the risk posed by the site, EPA will further investigate possible additional sources of the contamination during the remedial investigation. PRPs of sources that do not appear in the HRS documentation record are not precluded from liability. Until further investigations are carried out, EPA is unable to precisely define the extent of the site. Thus, additional sources may be included in the site as a whole as the site progresses through the Superfund process.

### **1.1.3.8 Innocent Landowner**

Fleet, the current owner of the former White Swan Laundry and Cleaners property, claimed that it is an “innocent purchaser with no liability under CERCLA” and that it had “no connection to the dry cleaning operations at the site.”

In response, liability issues are not relevant to a listing decision. The status of Fleet, either as an innocent landowner or as a PRP, does not affect the listing decision for this site.

### **1.1.3.9 Aquifer Interconnection**

Fleet stated that the EPA did not consider the “presence of a substantial clay layer at a depth of 60 feet, which is approximately 30-40 feet thick, beneath the White Swan site,” that may retard the migration of contamination from the White Swan site to the deeper part of the Cohansey-Kirkwood aquifer where the contaminated municipal well (No. 6) was screened. It asserted that the “clay detected on-site is present in surrounding areas and may represent a clay unit.” Fleet provided evidence from reports and boring logs that demonstrate “that the Kirkwood Formation dips southeast at an average rate of 11 feet per mile” and that the presence of a basal clay unit is approximately 7 feet below mean sea level (msl) at the White Swan site. It stated that the “surface elevation at the Sea Girt Municipal Well Field is approximately 20 feet above msl.” Fleet contended that the site “is approximately 6,200 feet (1.174 miles) east [sic] of the Sea Girt Municipal Wells” and that, assuming that the clay layer was continuous for 1.174 miles, and that it followed the same orientation and dip as the Kirkwood Formation, 11 feet to the southeast per mile, “the elevation of this clay unit at the municipal wells is estimated to be 20 feet below msl.” After Fleet reviewed the boring logs for the Sea Girt Municipal Well, it concluded that the gray clay and sandy gray clay was encountered at 31 and 52 feet, respectively, below grade at Well No. 5, a solid gray sandy clay at 38 feet below grade at Well No. 6, and, finally, a gray sandy clay and gray clay with streaks of sand at 41 to 52 and 52 to 82 feet below grade respectively for Well No. 7. Fleet also stated that since “the surface elevation at the municipal well field is 21 (sic) feet below msl” then “the depth to the clay unit

ranges from 14 feet to 21 feet below msl.” Fleet concluded that the elevations of the clay unit detected at all three well locations are in agreement with the estimated depth of a continuous clay unit.”

In response, the clay layer does not impede aquifer interconnection within the 4-mile target distance limit at the White Swan Cleaners/Sun Cleaners site. As stated in HRS section 3.0.1.2.2, *Aquifer Discontinuities*, “[a]n aquifer discontinuity occurs for scoring purposes only when a geologic, topographic, or other structure or feature entirely transects an aquifer within the 4-mile target distance limit, thereby creating a continuous boundary to ground water flow within this limit.” The HRS further states that, “if hazardous substances have migrated across an apparent discontinuity within the 4-mile target distance limit, do not consider this to be a discontinuity in scoring the site.”

It is not uncommon to find clay lenses and discontinuous clay layers in sedimentary geologic formations. EPA did acknowledge the possible presence of clay within the Kirkwood-Cohansey Aquifer System. EPA characterized the units that define the Aquifer of Concern and in that description are references to possible clay units. The HRS documentation record at proposal stated at page 15 that “[t]he Cohansey Sand consists of a light-colored, medium- to coarse-grained quartz sand containing minor amounts of pebbly sand, . . . and interbedded clay.” EPA goes on to say that, “[r]egionally, [in the Kirkwood Formation] extensive clay beds occur only in the basal part of the formation.” EPA did not consider these layers as barriers to contamination transport because they are not continuous across the 4-mile target distance limit (TDL) for the site. Reference 9 to the HRS documentation record as proposed, a memorandum to the New Jersey Bureau of Site Assessment from the NJDEP Geologist Bureau of Ground Water Pollution Abatement, contains the following geological description:

There are two distinct stratigraphic units directly beneath the study area; however, they should be grouped collectively as one geologic unit. . . The upper stratigraphic unit occurs from ground surface to about 50 feet bgs [below ground surface] and is marked by orange and tan to yellow-brown, gravelly coarse to fine sands. The lower stratigraphic unit occurs at about 50 feet bgs and is characterized by darker gray to black silty sands, sandy silts and small to minor amounts of clayey silt. . . portions or “stringers and lenses” of the lower stratigraphic unit would be expected to occur in the upper stratigraphic unit, and vice-versa. However, these “stringers and lenses” are not consistent through the area and do not represent a hydraulic barrier between the units.

PCE has been detected at levels significantly above background in samples from both the White Swan property and the Sun Cleaners Property, (see pages 17 - 20 of the HRS documentation record as proposed) and at numerous sampling locations extending from the sources to Sea Girt municipal well #6 and beyond. PCE contamination has been encountered in the deeper municipal well (#6) and, therefore, documents that the clay unit does not act as a boundary to ground water flow from the upper portion of the aquifer (see page 22 of the HRS documentation record as proposed). The HRS requires “aquifer interconnections to occur within 2 miles of the site” (section 3.0.1.2.1, *Aquifer interconnections*). As stated above, there is no doubt that contamination has been documented above and below the clay layer in the short distance between the White Swan property and the Sea Girt Municipal well. Therefore, interconnection between the upper and lower portions of the aquifer has been established, as Fleet calculated, within 1.174 miles. Further, the clay unit has not been documented as extending throughout the 4-mile TDL for the site, nor has it been shown to be a continuous layer. Also, contamination has migrated across this clay layer within 2 miles of the Site. Because of this, EPA does not consider this possible clay unit to be a discontinuity for scoring purposes within the Kirkwood-Cohansey Aquifer System.

### 1.1.4 Conclusion

The original score for the White Swan Cleaners/Sun Cleaners Area Ground Water Contamination site was 41.63. Based on the above response to comments, the site score remains unchanged. The final score for the White Swan Cleaners/Sun Cleaners Area Ground Water Contamination site is:

Ground Water	83.27
Surface Water	Not Scored
Soil Exposure	Not Scored
Air Pathway	Not Scored

HRS Site Score 41.63