

Site Review and Update

BURNT FLY BOG

MARLBORO TOWNSHIP, MONMOUTH COUNTY, NEW JERSEY

CERCLIS NO. NJD980504997

DECEMBER 4, 1997

**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Atlanta, Georgia**

Site Review and Update: A Note of Explanation

The purpose of the Site Review and Update is to discuss the current status of a hazardous waste site and to identify future ATSDR activities planned for the site. The SRU is generally reserved to update activities for those sites for which public health assessments have been previously prepared (it is not intended to be an addendum to a public health assessment). The SRU, in conjunction with the ATSDR Site Ranking Scheme, will be used to determine relative priorities for future ATSDR public health actions.

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SITE REVIEW AND UPDATE

BURNT FLY BOG

MARLBORO TOWNSHIP, MONMOUTH COUNTY, NEW JERSEY

CERCLIS NO. NJD980504997

Prepared by:

**New Jersey Department of Health and Senior Services
Consumer and Environmental Health Service
Under a Cooperative Agreement with the
Agency for Toxic Substances and Disease Registry**

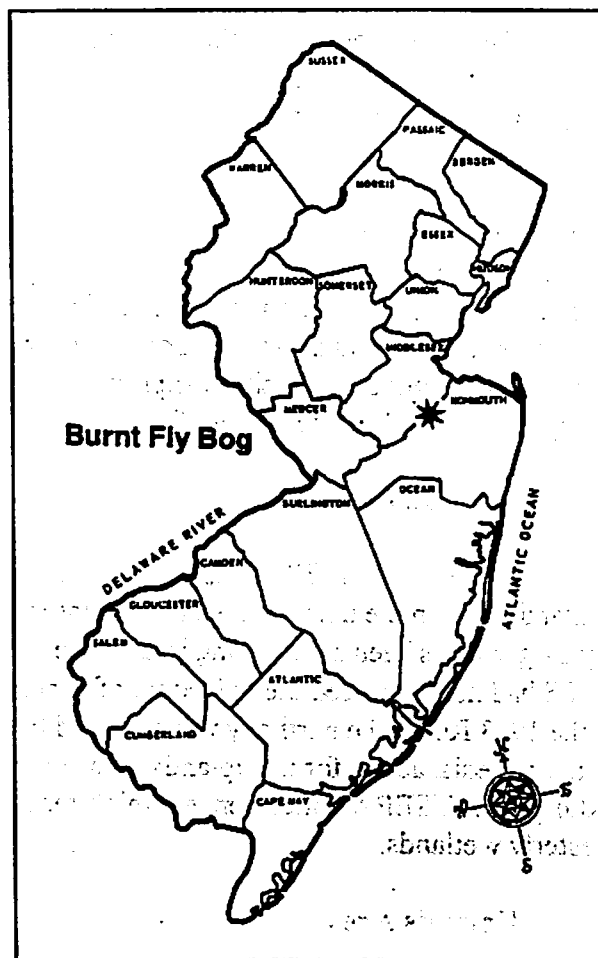
SUMMARY OF BACKGROUND AND HISTORY

The Burnt Fly Bog (BFB) site is located on Tylers Lane between Texas and Spring Valley Roads in Marlboro Township, Monmouth County, New Jersey (see inset). The Burnt Fly Bog is a semi-rural area covering about 1,700 acres, mostly in Marlboro Township, Monmouth County, but extending into Old Bridge Township, Middlesex County, New Jersey. This area is in the fringe area of the New Jersey Pine Barrens. Although the entire Burnt Fly Bog encompasses about 1,700 acres, the areas of contamination are limited to approximately 60 noncontinuous acres.

The purpose of this Site Review and Update is to reevaluate the current site data and information available and the impact of site related contaminants on public health.

During the 1950s and 1960s, different portions of the site were used by various owners for reprocessed oil storage or settling lagoons, filter cake storage, sanitary landfill activities and sand and gravel pit operations. The lagoon area, which encompassed a 10-acre area of the property off of Tylers Lane, became known as the "uplands area." The uplands area is that portion of the site on which the storage, treatment, and/or disposal of a variety of wastes have occurred. The uplands area contained a number of abandoned lagoons containing residual oil sludges and unidentified aqueous wastes, contaminated waste piles, and buried and exposed drums. Waste oil from the uplands eventually contaminated other areas, which became known as the "northerly wetlands," the "contaminated soils area," the "tar patch," and the "westerly wetlands."

The westerly wetlands is an approximately ten-acre, irregularly shaped portion of the site located west and southwest of the uplands area. The westerly wetlands receives drainage from the uplands area and most of the surrounding 1,700 acres of bog and pine barrens. Surface water flows from the westerly wetlands to the southwest, where it eventually joins a channel draining the entire Burnt Fly Bog area. Ultimately, the combined flow enters Deep Run, a source of potable water for the City of Perth Amboy. In addition, adjacent to the westerly wetlands is the "downstream area", where contaminated sediments migrating from up gradient areas had settled in a stream bed in the Burnt Fly Brook. The BFB site is located on a ground water discharge area of



the Englishtown aquifer. The ground water flows to the surface and drains into Deep Run. In addition to the oil reprocessing activities, the site was also the former location of a landfill and dump, located at the northern end of the uplands area. In 1969, the Middlesex County Court ordered the closure of the landfill. On October 26, 1973, a fire began in the lagoon area and burned for 16 hours before it was extinguished with the use of chemical foam. In 1981, concerned residents organized the Burnt Fly Bog Citizens Advisory Committee (BFBCAC). The Committee included representatives from Marlboro and Old Bridge Townships as well as officials from Monmouth and Middlesex Counties. The Committee functions as the liaison between the NJDEP and the local community. The Burnt Fly Bog site was included on the National Priorities List (NPL) in 1983.

Demographics:

BFB site is located on the border of Marlboro Township, Monmouth County, and Old Bridge Township, Middlesex County. Marlboro Township's dominant land uses include agricultural land, wooded lands, and residential developments. The area is primarily rural in character, containing scattered single family residences. An automobile salvage yard is located at the junction of Tyler Lane and Spring Valley Road. Tyler Lane provides access to the uplands area of the BFB site. Several single family residences are located along the Tyler Lane, and the "Tyler House" is located at the end of the road, about 200 feet from the uplands area of the BFB site. A 25 acre horse farm is located directly south of the lagoons area. The closest concentration of residential land uses is found along Ticetown Road in Old Bridge Township, approximately 1.5 miles north of the BFB site. The population surrounding the site is approximately 500 within a one-mile radius. The nearest residence is approximately 1000 feet away from the site.

Remedial History:

In 1983, NJDEP completed a Remedial Investigation and Feasibility Study to address contamination in the uplands area. The comprehensive study and delineation of contamination at Burnt Fly Bog site has been an on-going issue since the completion of the RI/FS in 1983. At that time, the RI/FS had not addressed the full extent of contamination at the site. Two contaminated areas included in the 1983 ROD (the northerly wetlands and the contaminated soils area) were not addressed as part of the remedial action for the uplands area. In November 1983, NJDEP issued a Record of Decision (ROD) with USEPA concurrence, which requested a supplemental RI/FS to further investigate the westerly wetlands.

Uplands Area

Between 1985 and 1989, the NJDEP conducted several Remedial Actions in the uplands area. Primary soil contaminants were polychlorinated biphenyls (PCBs) and lead. In the tar patch and contaminated soils area, lead and PCB concentrations ranged from 7.9 to 31,200 ppm and not detected to 64 ppm respectively. In the northerly wetlands area lead and PCB concentrations ranged from 21 to 3,500 ppm and 0.89 to 156 ppm, respectively. In 1989, NJDEP completed removal of the

lagoon liquid and excavation and off-site disposal of approximately 85,000 tons of contaminated soil and stabilized sludge from uplands. A clay cap was installed over the area. In addition, about 600 cubic yards of PCB-contaminated soil (concentrations greater than 500 parts per million) were removed from the site for off-site incineration.

Westerly Wetlands

In 1988, the NJDEP issued a ROD for the westerly wetlands. The interim measures included installation of a fence around the area, removal of contaminated soil and sediments from the downstream area, and the installation of a sedimentation basin to route runoff and surface water through the basin in order to prevent further migration of contaminated sediments from the downstream area. In 1991 the "Westerly Wetlands Restoration and Environmental Evaluation Study" was expanded into a Supplemental Feasibility Study (SFS) to include a full wetlands assessment and delineation, as well as Phase I and II Feasibility Studies. The SFS is expected to be completed by the summer of 1997. A Record of Decision is scheduled for November 1997.

Downstream Area

In 1995, the NJDEP completed a Remedial Design for excavation and off-site disposal of approximately 12,000 tons of contaminated soil and sediments from the downstream area of the westerly wetlands and for the construction of the sedimentation basin. Excavation of contaminated soils and construction of the sedimentation basin was completed in December 1996. A fence has been installed around the perimeter of the basin. Maintenance of the basin, including mowing and upkeep of gravel road around the basin, will be conducted by the NJDEP.

Tar Patch Area

A phased sampling program of the tar patch area was conducted in 1993. During Phase I of the sampling program, concentrations of PCBs ranged from 0.11 ppm to 81 ppm, and lead concentrations ranged from 30 ppm to 19,000 ppm in surface soil samples. The concentrations of PCBs in subsurface soil samples ranged from ND to 21.1 ppm, and lead concentrations ranged from 4.6 ppm to 1,910 ppm.

Burnt Fly Bog Quarterly Monitoring Program

A monitoring program, began in 1992, is being conducted by NJDEP's Bureau of Environmental Measurements and Quality Assurance (BEMQA). The monitoring program consists of collection and analysis of groundwater and surface water samples on a quarterly basis. In 1992 and 1993, PCB were not detected in either groundwater or surface water samples. The concentrations of lead in groundwater samples ranged from 3 ppb to 3,900 ppb in 1992, and 3 ppb to 4,800 ppb in 1993. The concentrations of lead in surface water samples ranged from 3 ppb to 36 ppb in 1992 and less than 5 ppb to 20 ppb in 1993.

Burnt Fly Brook Investigation

In June 1996, the NJDEP took thirteen sediment samples from the length of Burnt Fly Brook between the site and the brook's confluence with Deep Run in a one-time effort to determine whether there had been any downstream migration of contaminated material. Results indicated that PCB levels were non-detect or very close to non-detect, except for one location where the level was 8.9 ppm. Sediments from this location have been removed along with the contaminated soil from the downstream area.

Potable Well Investigation

The Burnt Fly Bog site is a ground water discharge area for the Englishtown Aquifer. The westerly wetlands receive drainage from the Uplands area and most of the surrounding 1,700 acres of bog and pine barrens. Surface water flows from the westerly wetlands to the southwest, where it eventually joins a channel draining the entire site. Ultimately, the combined flow enters the Deep Run, a creek located approximately 3,000 feet from the western end of the westerly wetlands. Deep Run is a source of potable water for the City of Perth Amboy.

There has been no significant migration of contaminants into this major water supply resource. However, there has been a concern expressed by local residents that contamination could occur in the future during dry periods. To date, there has been no evidence supporting this concern. Residents and officials of Old Bridge, Perth Amboy and Matawan have also expressed concern about potential contaminant migration to Deep Run which receives drainage from the Burnt Fly Brook and supplements the South Amboy Wellfield. In addition, further endangerment of Deep Run could threaten the drinking water of residents in Perth Amboy, who use the stream as a potable water supply source.

Private potable wells in the vicinity of the BFB site have been periodically sampled for site related contamination by the Monmouth County Department of Health and the NJDEP. On April 25, 1995, the NJDEP sampled potable well water from five residences located along Spring Valley Road. Analyses indicated the presence of lead, iron, copper, and aluminum. Iron was detected in all five samples at concentrations ranging from 2,260 ppb to 752,000 ppb. There is no primary drinking water standard for iron. Detected iron concentrations in private potable wells exceeded the NJ secondary drinking standard of 300 ppb. Copper was detected in one well only at a concentration of 2,160 ppb, which exceeded the NJ secondary drinking standard of 1,300 ppb. Aluminum was detected in two wells at concentrations of 252 ppb and 356 ppb, both of which exceeded the NJ secondary drinking standard of 50-200 ppb for aluminum. Only four samples contained lead at concentrations ranging from 2 ppb to 24 ppb. Only one well showed the contamination at a concentration higher than the current USEPA action level of 15 ppb. However, these concentrations are above the MCLG of 0 ppb.

The NJDEP has resampled these five private potable wells since April 25, 1995. Private potable wells previously exhibiting lead contamination were resampled in July 1995, October 1995,

January 1996, and April 1996. In July 1996, NJDEP sampled only four private potable wells in the vicinity of the downstream area in a continuing effort to monitor impacts during construction activities. One well showed slightly elevated lead levels. The wells were sampled again on January 15, 1997. NJDEP is planning to sample these private potable wells again in late fall 1997. Table # 2 and # 3 (see Current Issues subsection) presents a summary of site related contamination detected in private potable wells in the vicinity of the Burnt Fly Bog site.

Previous ATSDR Activity

The Agency for Toxic Substances and Disease Registry (ATSDR) completed a Preliminary Health Assessment for the Burnt Fly Bog site in August 1988. The Preliminary Health Assessment noted that contact with contaminated groundwater, surface water, on-site soils, and possible ingestion of bioaccumulated contaminants in the food chain were the identifiable potential human exposure pathways associated with the site. In addition, inhalation of volatilized contaminants or contaminants entrained in air during remedial operations is another potential source for human exposure. Contaminants of concern at the site consisted of polychlorinated biphenyls (PCB) and lead. Contaminants of concern based on the on-site (westerly wetlands) sampling indicated the presence of lead (2 to 31,000 ppm in soil, 44 to 7500 in sediment, and 0.029 to 1.9 ppm in surface water) and PCBs (non detect to 390 ppm in soil, and 0.39 to 140 ppm in sediment).

The 1988 Preliminary Health Assessment identified community health concerns associated with the potential environmental and human health risks posed by Burnt Fly Bog site. The ingestion of contaminated groundwater and surface water quality has been of major concern to the community because of the high lead concentrations at the site. Residents and officials of neighboring communities have expressed concern about contaminant migration to Deep Run, which receives drainage from the westerly wetlands.

The ATSDR identified the following public health concerns in the 1988 Preliminary Health Assessment:

- 1) Local residents who rely on private wells for their drinking water supply may be at risk as elevated concentrations of lead (205 ug/l and 216 ug/l) were detected in water samples from two private potable wells from homes near the site, in early 1980s. It is not known whether these elevated lead concentrations were the result of ground water contamination or the result of lead being leached from solder in the plumbing by corrosive water;
- 2) Direct contact and incidental ingestion of contaminated soil by trespassers or children who play in the Westerly wetlands is the most likely route of exposure. This pathway is incomplete as the BFB site is fenced and unauthorized access is not likely;
- 3) There is a potential human exposure pathway to bioaccumulated contaminants in the food chain (blueberries and cranberries grow wild in the area). This pathway is not substantiated

in the light of current site data and information. No crops or gardens (i.e., containing edible plants) are being grown on-site or are potentially effected by off-site migration of contaminants;

- 4) Contaminants can be transported off-site by surface water and sediment runoff. Since runoff from the site eventually discharges to Deep Run River, there is a potential for contaminant uptake by fish and other aquatic biota in Deep Run. Burnt Fly Bog may also serve as a feeding area for game animals (deer, rabbits), which can accumulate PCBs. These pathways are eliminated as no fishing and hunting are reported near the site; and,
- 5) In 1973, Burnt Fly Bog caught fire and burned for 16 hours before it was extinguished. Pyrolysis of PCB can result in the formation of chlorinated dibenzofurans (CDF) and chlorinated dibenzodioxins (CDD). Residues in the soil would be subject to ingestion by trespassers or worker at the site and could also be concentrated by biota in the area. This pathway is incomplete as dioxin compounds were not detected.

In summary, the ATSDR categorized the site in 1988 as a potential public health concern because of the risk to human health resulting from possible exposure to hazardous substances at concentrations that may result in adverse health effects. In addition, ATSDR concluded that further information is needed to adequately assess the impact of the site on public health. Recommendations were made to conduct the following activities:

- 1) Public access to the wetlands area should be restricted;
- 2) Exposure point ambient air monitoring for particulates at the site;
- 3) Plant and animals from BFB and fish from Deep Run should not be consumed unless it is first determined that they are free of contaminants;
- 4) All private well owners in the vicinity of the site should connect to the public water system unless regular private well monitoring is conducted; and,
- 5) Obtain additional information on contaminants to further characterize the site.

In addition to the 1988 preliminary health assessment, the NJDOHSS and the Agency for Toxic Substances and Disease Registry (ATSDR) has prepared a Site Visit Report (SVR) for the Burnt Fly Bog site in September 1995.

CURRENT CONDITIONS OF SITE

On August 15, 1996, Narendra P. Singh and Jeff Winegar of the New Jersey Department of Health and Senior Services (NJDHSS) visited the Burnt Fly Bog site accompanied by the NJDEP Remedial Project Manager. The site visit included a formal presentation by the NJDEP, and a tour of the area surrounding the site.

The following observations were made and information obtained during the site visit:

- 1) As noted in the site documents, the surrounding area is residential and commercial. Conditions at the site have changed since the 1988 preliminary health assessment. An active remediation operation was on going at the site as specified in the ROD. Excavation and disposal of the soils and sediments and construction of sedimentation basin began in late 1995, and was completed in December 1996.
- 2) The Burnt Fly Bog site is fenced and signs are posted along the fence line indicating that this is a Superfund site. There was no evidence of any trespassing on the site.

CURRENT ISSUES

Based on the site wide RI, site-related contamination is present in soils, surface water, sediments, and groundwater. Soils and sediments contain polychlorinated biphenyls (PCB) and lead. Surface water contains low levels of lead and PCB's from the adjacent wetlands.

Construction of a dike and security fence around the lagoons and drums, and removal and disposal of the contaminated soils and sludge in the uplands area, have greatly reduced the potential for accidental contact with hazardous materials and for contaminated liquids to migrate from the site. The site has been determined to be safe while further investigations into the wetlands and contaminated soil areas are on-going. Remedial progress has eliminated the potential for present or future human exposure to on-site soils.

Current private well data indicate that a completed exposure pathway to contaminated groundwater via ingestion does exist in the vicinity of Burnt Fly Bog site. However the presence of lead in these wells has not been established as a consequence of site related contamination.

**Table 1 - Sampling Data for Private Potable Wells along Spring Valley Road (1995).
(Concentrations are in ppb)**

Sample Date	PPW #1	PPW #2	PPW #3	PPW #4	PPW #5
04/25/95	Pb-24 Cu-2,160 Fe-2,10,000	Pb-8 Fe-876 Al-252	Pb-ND Fe-7,52,000	Pb-5 Fe-6,92,000	Pb-2 Fe-2,260 Al-356
07/11/95	Pb-1	Pb-216	Pb-5	Pb-49	not sampled
10/03/95	Pb-2	Pb-6	Pb-7	Pb-7	Pb-6

Pb= Lead, Cu= Copper, Fe= Iron, Al=Aluminum.

PPW= Private Potable Well

ppb=parts per billion

ND=not detected

**Table 2 - Sampling Data for Private Potable Wells along Spring Valley Road (1996).
(Concentrations are in ppb)**

Sample Date	PPW #1	PPW #2	PPW #3	PPW #4	PPW #5
01/17/96	not sampled	Pb-ND	Pb-7	Pb-192	Pb-3
04/10/96	Pb-6.1	Pb-7.4	Pb-1	Pb-11.6	Pb-10.5
07/16/96	Pb-1.8	Pb-17.3	Pb-5.4	Not sampled	Pb-2.7

Pb= Lead

PPW= Private Potable Well

ppb=parts per billion

ND=not detected

Inorganic contaminants including copper, lead, aluminum, and iron were detected in private potable wells. However, private potable well sampling data did not indicate the presence of inorganic contaminants exceeding ATSDR drinking water comparison values or New Jersey State primary drinking water standards (maximum contaminant levels criteria). Detected levels of lead concentrations exceeded the 15 ppb action level (for municipal wells) set by USEPA in two out of five wells sampled. The EPA action level generally pertains only to municipal wells, however, in this instance, it is mentioned since there is no available value to screen lead levels. It is not a maximum contaminant level (MCL), but is a trigger point at which remedial action is to take place. The New Jersey State secondary drinking water standards, which are primarily aesthetic, were exceeded for iron (300 ppb), copper (1,300 ppb), and aluminum (50-200 ppb) in private potable wells, located in the vicinity of Burnt Fly Bog site.

The ATSDR/NJDHSS have identified additional community health concerns associated with the Burnt Fly Bog site. During a public meeting conducted by NJDEP held on January 16, 1997, citizens

had expressed concern regarding a perception of increased incidence of cancer in the area. at Marlboro Township. Residents were invited to communicate this concern in writing to the NJDHSS for consideration for further action.

Public Health Implications

This section contains discussion of the health effects in persons exposed to specific contaminants (for completed pathways), discuss health outcome data and address specific community health concerns. Health effects evaluations are accomplished by estimating the amount (or dose) of those contaminants that a person might come in contact with on a daily basis. This estimated exposure dose is then compared to established health guidelines. People who are exposed for some crucial length of time to contaminants of concern at levels above established guidelines are more likely to have associated illnesses or disease. Health guidelines are developed for contaminants commonly found at hazardous waste sites. Examples of health guidelines are the ATSDR's Minimal Risk Level (MRL) and the USEPA's Reference Dose (RfD). When exposure (or dose) is below the MRL or RfD then non-cancer, adverse health effects are unlikely to occur. MRLs are developed for each type of exposure, such as acute (less than 14 days), intermediate (15 to 364 days), and chronic (365 days and greater). ATSDR presents these MRLs in Toxicological Profiles. These chemical-specific profiles provide information on health effects, environmental transport, human exposure, and regulatory status.

Lead

A 16 year exposure duration was assumed for lead. Site data indicate that exposure to lead may have occurred among residents in the vicinity of Burnt Fly Bog site through the groundwater ingestion pathway. There is no current chronic oral MRL or RfD is available for lead to evaluate the potential for non-cancer health effects. However, Estimated Exposure Doses (EED) calculated from the maximum reported concentration of lead in private potable wells were below the No Observed Adverse Effects Level (NOAEL) for non-carcinogenic adverse health effects (based upon animal studies) presented in the ATSDR Toxicological Profile for lead. At the concentrations found in the private wells and at the infrequent occurrence, it is unlikely that non-carcinogenic adverse health effects would occur. Lead is considered a probable human carcinogen (inadequate human, sufficient animal studies) by USEPA. Currently, no cancer slope factor exists to determine the potential lifetime excess cancer risk associated with oral lead exposure.

Secondary Contaminants

As mentioned previously, copper, aluminum, and iron were detected in private potable wells above New Jersey secondary drinking water guidelines. However, these guidelines are in place for primarily aesthetic (color, taste, odor, etc) purposes and generally do not have associations with public health issues.

CONCLUSIONS

1. Based upon available site data and information, the Burnt Fly Bog site is evaluated by the ATSDR and the NJDHSS to currently present no apparent public health concern. The conclusion of former health assessment that the site presents a public health concern is not valid under present site conditions.
2. Current site data indicate that four private potable wells are experiencing lead contamination. It has been not, however, been clearly established that the lead contamination is site related. The New Jersey State secondary drinking water standards were exceeded for iron, copper, and aluminum.
3. Maximum concentrations of lead detected by the NJDEP in private potable well water in the vicinity of BFB site yield exposure doses for children and adults that were below the No Observed Adverse Effect level (NOAEL) cited in the ATSDR Toxicological Profile for Lead. At such levels, non-carcinogenic adverse health outcomes are not likely to occur. Although lead is considered by the USEPA to be a potential human carcinogen, a cancer slope factor has not been established. Potential lifetime excess cancer risk for lead ingestion was not calculated.
4. Based upon current site data and information, contaminants are present in on-site soils at levels of public health concern. However, there are no complete human exposure pathways associated with on-site soils as the site is fenced making unauthorized access unlikely.
5. The remedial activities specified in the NJDEP's workplan, when implemented, are sufficient to address remaining concerns of the ATSDR and the NJDHSS regarding the site and are consistent with protection of the public health.

RECOMMENDATIONS

1. Periodic monitoring of the private residential wells in the site study area should continue to ensure water quality.
2. Periodic environmental monitoring program data for groundwater quality should be reviewed when available. Should the data indicate a change in groundwater quality, this pathway should be reviewed for public health significance.

PUBLIC HEALTH ACTION PLAN (PHAP)

The Public Health Action Plan (PHAP) for the Burnt Fly Bog site contains a description of the actions to be taken by ATSDR and/or NJDHSS at or in the vicinity of the site subsequent to the completion of this Site Review and Update (SRU). The purpose of the PHAP is to ensure that this SRU not only identifies public health hazards, but provides a plan of action designed to mitigate and prevent adverse human health effects resulting from exposure to hazardous substances in the environment. Included, is a commitment on the part of ATSDR/NJDHSS to follow up on this plan to ensure that it is implemented. The public health actions to be implemented by ATSDR/NJDHSS are as follows:

Public Health Actions Undertaken by ATSDR/NJDHSS:

1. Environmental data and proposed remedial activities have been evaluated within the context of human exposure pathways and relevant public health issues.

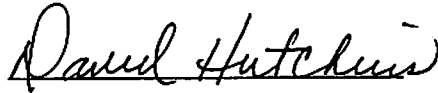
Public Health Actions Planned by ATSDR/NJDHSS:

1. This document will be provided to the Burnt Fly Bog Citizens Advisory Committee, Marlboro Township, Monmouth County Health Department, Old Bridge Township, and Middlesex County Health Department to convey ATSDR/NJDHSS concern regarding the risks of ingesting lead in drinking water.
2. The ATSDR and the NJDHSS will evaluate future data regarding potable wells in the area of the BFB site for public health implications.
4. ATSDR will provide an annual follow up to this PHAP, outlining the actions completed and those in progress. This report will be placed in repositories that contain copies of this SRU, and will be provided to persons who request it.

ATSDR will reevaluate and expand the Public Health Action Plan (PHAP) when needed. New environmental, toxicological, health outcome data, or the results of implementing the above proposed actions may determine the need for additional actions at this site.

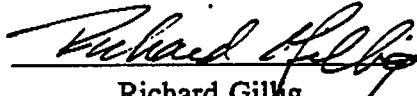
CERTIFICATION

This Site Review and Update (SRU) was prepared by the New Jersey Department of Health and Senior Services (NJDHSS) under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). It is in accordance with approved methodology and procedures existing at the time the SRU was begun.



David Hutchins
Technical Project Officer
Superfund Site Assessment Branch (SSAB)
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ATSDR

The Division of Health Assessment and Consultation, ATSDR, has reviewed this SRU and concurs with its findings.



Richard Gillig
Chief, SPS, SSAB, DHAC,

DOCUMENTS REVIEWED

1. Superfund Site Update, Burnt Fly Bog site, Marlboro Township, Monmouth County, NJDEP January, 1997.
2. Construction Progress Report (04-29-96 to 05-31-96), Burnt Fly Bog Operable Unit # 2 Superfund Remediation Project, Marlboro Township, Monmouth County, New Jersey. NJDEP June 1996.
3. Private Potable Well Sampling Report, Burnt Fly Bog, Marlboro Township, Monmouth County, New Jersey. NJDEP July 1996.
4. BFB site- NPL Update, Marlboro Township, Monmouth County, and Old Bridge Township, Middlesex County, New Jersey. USEPA Region 2 (Congressional Dist. 12) July 1996.
5. Site Visit Report (SVR), Burnt Fly Bog Site, Marlboro Township, Monmouth County, New Jersey. ATSDR September, 1995.
6. Health and Safety Plan, Burnt Fly Bog Operable Unit # 2 Superfund Remediation Project, Marlboro Township, Monmouth County, New Jersey. Allstate Power-Vac, Inc. October 1995.
7. Private Potable Well Sampling Report, Burnt Fly Bog site, Marlboro Township, Monmouth County, New Jersey. Monmouth County Board of Health October 1994.
8. Agency for Toxic Substances and Disease Registry, Toxicological Profile for lead, Atlanta. ATSDR, April 1993.
9. Preliminary Health Assessment for the Burnt Fly Bog site, Marlboro Township, Monmouth County, New Jersey. ATSDR August 1988.
10. Westerly wetlands Supplemental Stage II Investigations: Feasibility Study, Burnt Fly Bog site, Marlboro Township, Monmouth County, New Jersey. Ebasco Services January 1988.
11. Record of Decision, Westerly wetlands, Burnt Fly Bog site, Marlboro Township, Monmouth County, New Jersey. NJDEP September, 1988.
12. Record of Decision, Uplands area Operable Unit, Burnt Fly Bog site, Marlboro Township, Monmouth County, New Jersey. NJDEP November, 1983.

INTERVIEWS/PERSONAL COMMUNICATIONS:

1. Remedial Project Manager/NJDEP
2. Community Relations Coordinator/NJDEP
3. Project Manager/Emergency & Remedial Response Division/USEPA

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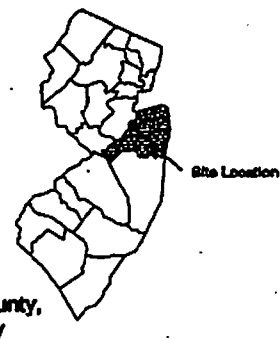
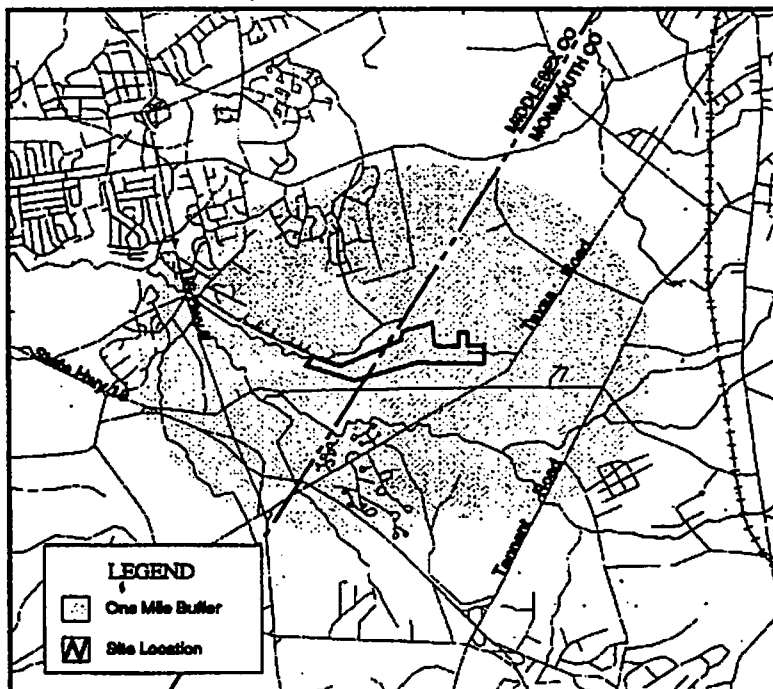
Any questions concerning this document should be directed to:

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Appendix 1 - Demographic Information

Burnt Fly Bog Marlboro, New Jersey

CERCLIS No. NJD980504997



Demographic Statistics Within One Mile of Site*	
Total Population	4441
White	3812
Black	184
American Indian, Eskimo, Aleut	6
Asian or Pacific Islander	410
Other race	28
Hispanic origin	175
Children Aged 6 and Younger	588
Adults Aged 65 and Older	198
Females Aged 15 - 44	1222
Total Housing Units	1525

*Calculated using an area-proportion spatial analysis technique

