**U.S. ENVIRONMENTAL PROTECTION AGENCY**

**SUPERFUND PROPOSED PLAN FACT SHEET**



***Camilla Wood Treatment (Escambia)***

***SUPERFUND SITE***

**Camilla, Mitchell County, Georgia August 2009**

**Introduction**

**Contact the EPA Community Involvement Coordinator for further information.**

This Proposed Plan is part of EPA's requirements under Section 117(a) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund). Greater detail can be found in the Remedial Investigation (RI), Feasibility Study (FS), and other documents in the Administrative Record.

The Record and an Information Repository for the Camilla Wood Treatment Site are at the:

De Soto Trail Regional Library

145 East Broad Street

Camilla, GA 31730

229-336-8372

EPA Region 4 Superfund Record Center

61 Forsyth Street SW

Atlanta, Georgia 30303

***Direct comments or questions to:***

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OR

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Superfund Remedial Branch

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Atlanta Federal Center

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Atlanta, Georgia 30303

(800) 564-7577

Hours: Mon-Fri 8:00am-4:30pm

The U.S. Environmental Protection Agency (EPA) invites comment on a proposed cleanup plan (***Proposed Plan*\*)** for the Camilla Wood Treatment (Escambia) ***Superfund*** Site (Site). This Proposed Plan and subsequent ***Record of Decision*** (ROD) explain options EPA evaluated and provide the rationale for EPA's preferred alternative. A comprehensive remediation strategy will focus on both soil and ground water contamination in a single remedial plan. Active measures will be taken to remediate: 1) On-facility surface and subsurface soils and 2) Ground water. In addition, continued ground water monitoring will be performed. The preferred alternative will fully address the soil and ground water contamination at the Site.

EPA, in consultation with the Georgia Environmental Protection Division (GEPD), will select the final remedy for the Site after reviewing and considering all information submitted during the 30-day ***public comment period*.** EPA, in consultation with FDEP, may modify the Preferred Alternative or select another ***response action*** presented in this Plan based on new information or public comments. Therefore, the public is encouraged to review and comment on all of the alternatives presented in this Proposed Plan. The ***Responsiveness Summary*** portion of the ROD amendment will respond to the public’s comments on this Proposed Plan.

**Site Background, Overview And History**

The Camilla Wood site is located on approximately 50 acres in the southern portion of Camilla, Mitchell County, Georgia, about 0.25 mile west of U.S. Highway 19. The inactive wood treating facility is bordered by South Harney Street to the west, Thomas Street to the east, and East Bennett Street to the north (Figure 1). Residential neighborhoods are located just north of the site and approximately 0.25 miles to the west of the site. A Georgia Department of Transportation facility borders the facility to the southeast.

**Site Background**

Wood treating operations began at the site in 1947. The facility was constructed by the Louis Wood Preserving Company on approximately 50 acres of land that had been a cypress swamp. In 1950, the Escambia Treating Company purchased the property and continued wood preserving operations. In 1985, through a series of corporate reorganizations and stock transfers, International Utility and Supply Corporation assumed control of the company and facility operations. The Escambia Treating Company retained the surface impoundments and their associated environmental liabilities. At that time, the name of the operating company was changed to Camilla Wood Preserving, Inc. On February 8, 1991, Camilla Wood Preserving filed for bankruptcy protection, and on February 26, 1991, the facility closed.

During its 44 years of wood treating operations, the facility prepared trees for treatment by debarking, cutting to size, and drilling holes. Treatment consisted of using trams to load peeled poles into two pressure treating cylinders, and then steaming the poles for 10 hours. A vacuum was then applied to the cylinders to remove water from the poles. Following the vacuum (dewatering) stage, approximately 25,000 gallons of treating solution was pumped into the treatment cylinders through aboveground pipes. The treating solution, either creosote or a solution of 10 percent PCP in diesel fuel, was forced into the poles through pressurization. The poles were

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| **COMMUNITY INVOLVEMENT OPPORTUNITIES**  **Public Comment Period**  **Dates:** August 12 through September 10, 2009  **Purpose:** To comment on the Proposed Plan for the Camilla Wood Treatment Site.  **Availability Session**  **Public Meeting**  **Date:** August 18, 2009  **Time:** 4:00PM – 6:00PM.  **Place:** De Soto Trail Regional Library  145 East Broad Street  Camilla, GA 31730  **Purpose:** To discuss the Proposed Plan for the Camilla Wood Treatment Site.  **Public Meeting**  **Date:** August 18, 2009  **Time:** 7:00PM – 9:00PM.  **Place:** De Soto Trail Regional Library  145 East Broad Street  Camilla, GA 31730  **Purpose:** To discuss the Proposed Plan for the Camilla Wood Treatment Site. |

treated for a variable amount of time, depending on their moisture content. After treatment, the poles were removed to the drip area located in the vicinity and south of the railroad tracks for drying and storage.

Wastewater was generated throughout the process, in particular during the steam treating process (part of the dewatering step), preservative recovery, and the cleansing of drums, storage tanks, and the production area. Initially, the wastewater was collected in unlined impoundments located in the northeastern portion of the site. Later, the waste streams were treated in an on-site wastewater treatment system, before being discharged to the City of Camilla’s wastewater treatment plant. The location of the sewer connection is unclear.

In the 1960s, on-site drainage was altered to channel surface water runoff and, in some cases, facility wastewater to two drainage (injection) wells located in the south-central portion of the property. These wells, which likely drained into the Upper Floridan Aquifer, were ordered sealed by the State Water Resources Control Board in October 1966. The drainage wells were reportedly plugged in 1971. An aerial photo taken during the wood treating operational period at the site is shown on Figure 2.

**Site Characteristics**

The Camilla Wood site has generally level elevations ranging from 170 to 175 feet above sea level. The site vicinity is characterized by karst topography with shallow flat-bottomed or rounded sinkholes.

The Site has two main aquifers. The first surficial aquifer (water table aquifer) is the undifferentiated residuum. Although small quantities of ground water can be obtained from the residuum, it is described as a poor aquifer and serves mainly as a confining bed. The water table is between 1 and 5 feet bls. The intermediate aquifer at the site is the main water producing aquifer for the site area is made up of the Ocala Limestone which forms the upper Floridan aquifer system at the site.

The site area is prone to flooding due to the flat topography, shallow water table, and low permeability of the shallow soils at the site. Excess surface water during high rainfall events flows via sheet flow toward the drainage ditches at the site which direct flow to the south and east. Runoff also flows toward topographic low areas and can leave the site in any direction, particularly near the site boundaries.

**Regulatory History**

After facility closure in 1991, Region 4, USEPA Emergency Response and Removal Branch secured the site by placing a fence along the perimeter. Water from a storage impoundment was pumped into a storage tank located at the wastewater treatment area. In addition, approximately 50,000 gallons of wastewater were discharged to the City of Camilla's wastewater treatment system. During site stabilization efforts, drums were gathered and staged on-site and the impoundment area was backfilled with on-site soils. Approximately 25% of the impoundment area remained open and contained sludge.

In 1992, approximately 95,000 gallons of wastewater was treated on-site, the sludge in the impoundment was solidified, and the impoundment was capped.

In 1994, EPA initiated the treatment of standing water at the site and the dismantling of the process facility. Approximately 522,000 gallons of water were treated and discharged to an on-site evaporation pond. Additionally, 30,723 gallons of pentachlorophenol and creosote were removed from on-site tanks and shipped off-site for disposal. In October 1994, approximately 5,000 cubic yards (cy) of soil were removed from a site parking lot, an easement along Bennett Street, and four residential properties across Bennett Street based on the results of dioxin sampling, and stockpiled in a lined, bermed, on-site staging area.

In 1995, approximately 5,000 tons of contaminated soils were shipped off-site for disposal.

In May, June, and July 1997, under the direction and oversight of the GEPD, Ecology and Environment conducted a Site Assessment to characterize soil and ground water contamination in the extreme northeastern portion of the former Escambia Treating and Forshall Company facilities. Results indicated that elevated levels of wood treating solution compounds [Resource Conservation and Recovery Act (RCRA) K001], historically used at both facilities, were present in the underlying soil and ground water.

A Hazardous Ranking System (HRS) Package was prepared for the Camilla Wood site in June of 1995. After review of the HRS Package the Camilla Wood site was proposed to the NPL in 1998.

**Previous Investigations**

RI activities at the Camilla Wood site have been ongoing since 1997. The western portion of the site has undergone a soil removal action, and this portion of the site has been returned to beneficial use. In addition to the soil removal action, the drainage ditch bordering the site has been improved including the relocation of several species which previously inhabited the ditches, removal of contaminated sediments, and general ditch cross-section improvements to enhance open channel flow.

***Initial Remedial Investigation.***

The initial RI to determine the nature and extent of contamination at the Camilla Wood site was conducted by the EPA Science and Ecosystem Support division (SESD) between 1997 and 1999.

A total of 328 surface and subsurface soil samples were collected from 134 on-site and off-site locations. The data indicated that contamination associated with wood treating operations [polycyclic aromatic hydrocarbons (PAHs) and pentachlorophenol (PCP)] were present in the majority of samples collected at the site. In addition, dioxins/furans were found in several surface soil locations. Higher levels of contamination were found in the northeastern corner of the site in the vicinity of the ponds and in the drip track area in the northern portion of the site.

During the initial RI, ground water was investigated in two phases. In the first phase, 22 samples were collected and analyzed for the full Target Compound List and Target Analyte List (TCL/TAL). In the second phase, 14 additional ground water samples were collected using a Hydrocone® ground water sampler. These samples were analyzed for volatile organic compounds (VOCs) only.

The results of the initial ground water investigations indicated that ground water contamination was generally limited to the former Camilla Wood site and the adjacent Camilla Drum Site. Again, compounds associated with wood treating operations (PAHs and PCP) dominated the list. The locations of the initial RI ground water samples and a summary of the results are presented in the 1999 RI Report.

Surface water samples were collected at 10 on-site and off-site locations. The pre-removal results indicated that surface water was only minimally contaminated with low concentrations of PAHs and PCP.

Sediment samples were collected at 10 on-site and off-site locations to characterize the sediment and identify potential contamination. The pre-removal results indicated that sediment was contaminated to a lesser extent than soil. PAHs and arsenic were detected.

***SupplementaryRemedial Investigation***

A Supplementary Remedial Investigation (SRI) was conducted to define more precisely the extent of contamination determined during the initial RI. Four phases of the SRI were conducted; Phase 1 was conducted in June, September, October, and November 2002; Phase 2 was conducted in February and March 2003; Phase 3 was conducted in February, March, and May 2004; and Phase 4 was conducted in December 2006, May 2008, and February 2009.

***Phases 1 and 2***

Over 90 surface soil samples were collected and screened in the field. Fifteen of these samples were split and submitted to a CLP laboratory to determine the comparability of field screening data to laboratory data. PAHs were found at most locations, with the highest detections found in the drip track area in the northwest portion of the site within the area which was remediated by a soil removal action in 2006. PCP is a widespread contaminant in surface soil. The highest concentrations were found south of the boiler house and in the drip track area.

Subsurface soil samples were analyzed on-site for total PAHs and PCP using ELISA screening. Twenty samples were split and sent to a CLP laboratory to determine the comparability of field screening data to fixed-base laboratory data. Concentrations of BaP TEQs in excess of human health risk-based action levels are limited to two locations, E2 and G4. These 2 locations are outside of the area which has been addressed by the soil removal action and therefore remain to be addressed further in this Proposed Plan. PCP was observed to be a widespread contaminant. Areas with high PCP concentrations were the penta plant east of Thomas Street, and the drip track area. These site areas, with the exception of the former drip track area, were also outside of the area previously addressed in the soil removal action and will be addressed further in this Proposed Plan.

Four subsurface soil samples were submitted to an off-site laboratory for dioxin/furan analysis. In terms of human health, the dioxin toxicity equivalent (TEQ) is the most important parameter. A typical cleanup goal for dioxin at commercial or industrial facilities is in the 5 to 20 parts per billion (ppb) range, which is equivalent to 5,000 to 20,000 parts per trillion (ppt). Concentrations found on-site ranged from 21 to 240 ppt, well below a level of concern.

Forty-one temporary well points were set for the collection of ground water samples. Ground water samples were collected from the top of the water column and the bottom of the well. Samples were analyzed on-site using immunoassay test kits or off-site at a CLP laboratory.

In September 2002, ground water samples were collected from 20 of the 24 existing monitoring wells.

BaP TEQs and PAHs are widespread contaminants in the shallow zone; however, cPAH contamination is more localized than PAH contamination. The area east of Thomas Street, near the old penta plant, had the only two detections above the action level. The sample collected from the top of the water column at TW-F3 had the highest detections of BaP TEQs [133.8 micrograms per liter (ug/L)] and total PAHs (13,125 ug/L) of any shallow zone sample. BaP TEQs were detected at only two other locations. Total PAH contamination (as measured by concentrations above the naphthalene action level) exists in this area, but also in the northeast portion of the site, and in a pocket south of the drip track area, in the northwest portion of the site.

The distribution of PCP contamination in the shallow zone is similar to that of BaP TEQs and total PAHs; however, PCP contamination is more widespread than the cPAH/PAH contamination. Shallow zone PCP contamination is highest in the area east of Thomas Street and in the northeast portion of the site.

Low concentrations of PAHs are widespread in the intermediate zone. The cPAHs were not detected in any of the intermediate zone samples. Overall contamination in the intermediate zone is less widespread than that observed in the shallow zone.

PCP was commonly detected in the intermediate zone. The highest detection was in SMWI1, a well on Singleton Street, north of the site, where PCP was detected at 75 ug/L in the primary sample and 65 ug/L in its duplicate. PCP contamination above the action level was found in three on-site wells, but also extended north and northeast of the site, and in the well east of Thomas Street.

Seven surface water samples were submitted for SVOC analyses. No SVOCs were positively identified in any of the samples. Two composite surface water samples were submitted for dioxin analyses. Both samples resulted in low, but detectable, concentrations of dioxin TEQ.

Seven surface sediment samples were collected for field screening. Four samples were split and sent to a CLP laboratory to determine the comparability of field screening and laboratory data. High concentrations of PAHs were detected at most locations, but no sample exceeded the BaP TEQ action level. PCP was not found above the action level. Surface sediment samples from two locations were composited with samples collected at 2 feet bls and submitted for dioxin/furan analysis. Concentrations of 76 and 70 ppt were found, well below a level of concern. These sediment samples were all collected from areas which were addressed during the soil removal action and the ditch improvements which occurred at the site in 2006.

The cPAHs were detected in both subsurface sediment samples submitted to the CLP laboratory and during field screening. Location K10, collected at 2 feet bls, had the higher concentrations of cPAHs and total PAHs. The BaP TEQs measured at location K10 (24,727 μg/kg) exceeded the action level of 6,900 μg/kg. As was the case for BaP equivalents and PAHs, location K10 had the highest concentration of PCP among the subsurface sediment samples. The concentration was below the action level for PCP, however. Sampe location K10 was collected from within the area which was addressed during the soil removal action and the ditch improvements which occurred at the site in 2006.

***Phase 3***

In February, March, and May 2004, ground water and soil samples were collected to determine the horizontal extent of contamination in the shallow aquifer and to confirm contamination in the intermediate aquifer beneath the site.

In the beginning of the investigation, soil and ground water samples were screened using the ELISA method. However, during the course of the analyses it was determined that there was a problem with the standard solutions in the field screening kit. This called into question the reliability of the results and the method was discontinued. The remaining samples that had not exceeded holding times were sent to the laboratory for analysis.

Significant concentrations of PCP and PAHs were detected in ground water samples. The cPAHs were detected at lower concentrations. The 2004 investigation concluded that the contamination plume in shallow ground water has been delineated, and that contamination from the shallow aquifer has reached the intermediate aquifer.

***Phase 4***

In December 2006, the Phase 4 investigation began Two wells (MW09I and MW10I) were installed on-site, one well (AFMWI-3) was installed to the east of the site adjacent to the athletic fields, two wells (MASMWI-1 and MASMWI-2) were installed on the property located southeast of the site, and one well (TMWI-2) was installed to the south of the site.

Only intermediate zone wells were investigated during the 2006 ground water sampling event. Eleven existing wells and the six newly installed wells were sampled. Samples were analyzed for PCP and total PAHs.The analytical results from the December 2006 intermediate zone ground water sampling event confirmed previous investigation results which showed that site-related contamination is present in the intermediate zone primarily in the immediate vicinity of the site and former process areas.PCP was detected in several of the existing intermediate wells and in both of the newly installed on-site intermediate wells. PCP concentrations ranged from 0.075 µg/L in MW07I (located in the northern portion of the site near Bennett Street) to 3,500 µg/L in PMW01I (located at the intersection of Powell and Thomas Streets near the southeastern edge of the site). Naphthalene was also detected in several of the existing intermediate wells and in one of the new on-site intermediate wells. Naphthalene concentrations ranged from 6.4 µg/L in PMW01I to 2,200 µg/L in newly installed well MW10I (located near the eastern edge of the site).

During the December 2006 investigation, 3 wells were found near the former pole barns at the southern end of the western half of the site. The well IDs were not known at the time of discovery, so they were designated MWPBEI (for pole barn east intermediate), MWPBWI (for pole barn west intermediate) and MWPBC (for pole barn center). The center pole barn well was not given an intermediate designation because the well was the deepest of the 3 wells, but the water table was consistent with the shallow residuum zone wells. The center pole barn well was identified as a potential source of contamination of the intermediate zone since there is an apparent communication between both zones at this well. Prior to the end of the investigation, the 3 pole barn wells were sampled. Due to the apparent interconnection between the 2 zones at the center pole barn well, MWPBC was not purged in an attempt to prevent potential shallow contamination from being drawn down into the deeper zone. Instead, the center well was sampled from the top of the water table and from as near the bottom of the well as possible.

As a result of finding and sampling the 3 pole barn wells, naphthalene and PCP contamination was found in the intermediate aquifer at the southern end of the western half of the site in an area where delineation of the intermediate aquifer had not previously been undertaken. The wells had relatively short surface casing sticking up above ground level, had no caps, and were located in an area of the site which has been historically prone to flooding. Therefore, the 3 wells themselves could have been a source of contamination reaching the intermediate ground water zone during flood events when standing water at the site exceeded the height of the casing. In order to investigate and evaluate the possibility of the pole barn wells being occasional point sources of contamination, it was decided to conduct a small-scale chemical oxidant application at the eastern pole barn well and to re-sample several of the intermediate wells.

In March 2008, the small-scale chemical oxidation study was performed by applying a potassium permanganate solution into the eastern pole barn well. For the study, a solution consisting of potassium permanganate and water was gravity fed directly into the eastern pole barn well. The solution consisted of just under 100 gallons of solution at a 2 percent mixture. The total quantity of potassium permanganate used was approximately 2.3 pounds.

In May 2008, the eastern pole barn well was resampled after the application of the chemical oxidant. In addition, the intermediate wells installed in December 2006 were resampled to obtain an additional data point for the newest wells. Results indicated the presence of trace concentrations of naphthalene in wells MASMW02I and TMW02I located southeast and south of the site, respectively. High levels of naphthalene and PCP were once again found in on-site well MW10I. Naphthalene, PCP, and total PAH concentrations increased in MW10I since the previous sampling event in December 2006. In addition, an increase in the concentration of naphthalene and PCP in the eastern pole barn well was observed post-injection of the oxidant.

In October 2008, a site visit was conducted to re-inject an increased dosage of potassium permanganate solution the eastern pole barn well. This dose consisted of approximately 25 pounds of potassium permanganate mixed with approximately 400 gallons of water or approximately 10 times the previous dose.

In February 2009, a full round of ground water sampling was conducted at the site. All existing shallow and intermediate wells at the site were sampled with the exception of 3 wells. Intermediate well LMWI01 located on Lincoln Street north of the site could not be located by the field team. Shallow wells MW05S and MW07S were not sampled due to the presence of free product in the well. A total of 27 intermediate wells and 8 shallow wells were sampled in addition to MWPBC which is not classified as either shallow or intermediate due to the apparent interconnection.

Analytical results of shallow ground water samples indicated a noted absence of shallow ground water contamination in the wells located west of the drainage ditch which separates the non-remediated eastern portion of the site from the western portion of the site which is currently being used by the Mitchell County Recreation Department for soccer fields and offices. Free product was encountered in MW05S located near the midpoint of the eastern edge of the site and in MW07S located near the midpoint of the northern edge of the site. Elevated concentrations of wood treating contaminants were found in all of the shallow wells located on the non-remediated eastern side of the site. Figure 3 shows shallow ground water sample locations and a summary of the analytical results.

Analytical results of the intermediate ground water samples collected in February 2009 continues to demonstrate that there is no evidence of site-related contamination above trace levels east of the railroad tracks east of the site. The most significant observations from the field event and the analytical results include the following:

* A significant decrease in the concentration of PCP in PMW01I since the previous time this well was sampled in December 2006 (from 3,500 µg/L to 38 µg/L).
* Upon opening PMW01I during the sampling event the well was under pressure, the water level rose over 0.5 feet to apparent equilibrium in a 10 minute period, and after reaching equilibrium water could still be heard flowing in the casing (this observation could be related to the observation in the bullet above).
* A continued increase in the concentration of PCP in MWPBEI despite the addition of increasing doses of potassium permanganate.
* Concentrations of naphthalene, PCP, and total PAHs have consistently increased in MW10I.

**Current/Present Nature and Extent of Contamination**

***Shallow Ground Water***

The shallow ground water zone is characterized by very flat hydraulic gradients which have been observed to change direction, presumably influenced by variations in the amounts and locations of rainfall. Contaminant migration in the shallow ground water zone appears to be very slow both horizontally and vertically due to the very flat gradients and low permeability soils in the shallow zone. In general, contamination is greatest on the eastern side of the site where wood treating chemicals were stored and used and along the northern portion of the site where the drip track was located. NAPL exists near the source(s) of contamination. Free product was observed in MW05S and MW07S. Figures 4 and 5 show the extent of the shallow zone naphthalene and PCP plumes, respectively.

***Intermediate Ground Water***

RI results indicate that site related contaminants have migrated into the intermediate ground water zone at the site. PCP is fairly widespread in the intermediate wells at the site, but is limited to the area west of the railroad tracks to the east of the site. Naphthalene contamination at concentrations of concern appears to be isolated to two plumes (one practically bisecting the eastern portion of the site in an east-west direction and one in the former pole barn area on the western side of the site) and one smaller hot spot at the northwest corner of the site.

The highest concentrations of site related contaminants were found in MW10I located near the eastern edge of the site, and concentrations have increased consistently in this well over 3 sampling events since December 2006. These observations suggest that MW10I may likely be near a primary source of migration of contamination from the shallow ground water zone to the intermediate ground water zone. In addition, PCP concentrations have consistently increased in the eastern pole barn well despite the addition of permanganate in the well, suggesting that there may be a more widespread PCP plume in the vicinity of the well. Figures 6 and 7 show the extent of the intermediate zone naphthalene and PCP contamination, respectively.

***Surface Soil***

One hundred forty-two surface soil samples were collected from 134 locations during the 1998 and 1999 RI. Soil samples which were collected from the western portion of the site within the area of the 2006 removal action (66 grid locations) are not considered part of the data set being evaluated since they were addressed during the removal action. Only the results of the samples from the remaining 68 grid locations are summarized and discussed below. Surface soil samples collected from the grid locations were collected from 0 to 0.25 ft bls and were collected as 5-point composite samples.

Carcinogenic PAHs were detected in surface soil samples from 61 of the 68 grids located outside the area which was addressed by the 2006 soil removal action. Of the locations where carcinogenic PAHs were detected, 36 contained BaP equivalent concentrations greater than 1,000 µg/kg, with the highest concentrations observed in the former chemical area located across Powell Street east of the site.

PCP was detected in 53 of the 68 sampling grids not addressed by the removal action, with 23 of the sample results exceeding the 3,000 µg/kg RSL for residential soil. Concentrations greater than 10,000 µg/kg were observed in 11 of the grid locations. The highest concentration of PCP (130,000 µg/kg) was detected in the former chemical area across Powell Street east of the site in grid 195.

Dioxin TEQ was detected in each of the 19 grids in which it was analyzed. Concentrations ranged from 12 to 11,000 nanograms per kilogram (ng/kg) (i.e. parts per trillion, ppt). For comparison, EPA’s current dioxin soil cleanup level for typical direct contact residential exposure is 1,000 ng/kg.

***Subsurface Soil***

One hundred eighty-six samples were collected from 134 grid locations during the 1998 and 1999 RI. As was the case for the surface soil samples, subsurface soil samples which were collected from the area addressed by the 2006 removal action are not addressed in this proposed plan.

Carcinogenic PAHs were detected in 41 of the 68 grids which were not addressed by the 2006 soil removal action. BaP concentrations ranged from trace levels to 125,270 µg/kg. The highest concentrations were observed in the area of the former cooling ponds in the northeast portion of the site. BaP equivalent concentrations exceeding 1,000 µg/kg were detected in 18 grid locations. Concentrations of carcinogenic PAHs were generally observed to be greater in the subsurface soil samples than in the surface soil samples.

PCP was detected in 30 of 68 grids at concentrations ranging from 42 µg/kg to 230,000 µg/kg with the highest concentrations being observed in the northern portion of the site in the vicinity of the former cooling ponds. PCP concentrations were generally higher in the subsurface soil samples than in the surface soil samples.

***Surface Water/Sediment***

Post-removal surface water and sediment samples were collected in August 2008. No site-related contaminants were found in any of the samples at concentrations of concern.

**Study Findings And Risk**

As part of the 2009 RI/FS, an assessment was conducted to estimate the human health or environmental problems that could result if Site soil and ground water contamination is not addressed. This analysis, known as a baseline risk assessment, focused on the current and future human health and environmental effects from long-term exposure to the contaminants found at the Site. Potential receptors include current and future residents, future workers, and future recreational users.

It is EPA’s current judgment that implementation of the Preferred Alternative or one of the other alternatives identified in this Proposed Plan, is necessary to protect public health and welfare and the environment from actual or threatened releases of hazardous substances, pollutants or contaminants from this Site which may present an imminent or substantial endangerment to public health or welfare.

**Human Health Risks**

The 2009 RI/FS presented the Baseline Risk Assessment for Human Health which addresses the present and future human health risks related to the ground water and soil contamination at the Site. EPA is not aware of any in-use private or public drinking water supply wells within the contaminant plume. Therefore, no excess cancer risk or non-cancer hazards are associated with the current use scenario for ground water. Potential future receptors would be child residents, and child/adult residents. Potentially complete future exposure routes are the ingestion of ground water and inhalation of vapors released while showering. The Human Health risk Assessment concluded that there may potentially be unacceptable risk for a future child resident, industrial worker, or recreational user due to exposure to contaminants in the surface soils at the site. Site-related contaminants were detected above EPA’s **maximum contaminant level (MCL);** which is the maximum level of a contaminant permitted in drinking water supplied by a public system. Contaminants less than the MCL are considered protective of public health; conversely, values greater than the MCL are considered potentially harmful to public health. Since contaminants found to be present in the surficial and intermediate aquifer system exceed their MCL, the Risk Assessment concluded that potential consumption of the ground water exceeds EPA’s acceptable risk range for Superfund sites.

**Ecological Risks**

The potential for adverse risk to wildlife from contaminants at the Camilla Wood site are low and not expected to be ecologically significant. Although a few small areas may pose some risks to individuals that may reside on or adjacent to the site, populations of local birds and small mammals are not threatened.

**Remedial Action Objectives (RAOs) Cleanup Goals**

**WHAT IS RISK AND HOW IS IT CALCULATED?**

**Human Health Risk**

A Superfund human health risk assessment estimated the “baseline risk.” This is an estimate o f the likelihood of health problems occurring if no cleanup action were taken at a site. To estimate the baseline risk at a Superfund site, EPA undertakes a four-step process:

Step 1: Analyze Contamination Step 2: Estimate Exposure

Step 3: Assess Potential Health Dangers Step 4: Characterize Site Risk

In Step 1, EPA looks at the concentrations of contaminants found at a site as well as past scientific studies on the effects these contaminants have had on people (or animals, when human studies are unavailable). Comparisons between site-specific concentrations and concentrations reported in past studies help EPA to determine which contaminants are most likely to pose the greatest threat to human health.

In Step 2, EPA considers the different ways that people might be exposed to the contaminants identified in Step 1, the concentrations that people might be exposed to, and the potential frequency and duration of the exposure. Using the information, EPA calculates a “reasonable maximum exposure” (RME) scenario, which portrays the highest level of human exposure that could reasonably be expected to occur.

In Step 3, EPA uses the information from Step 2 combined with information on the toxicity of each chemical to assess potential health risks. EPA considers two types of risk: cancer risk and non-cancer risk. The likelihood of any kind of cancer resulting from a Superfund site is generally expressed as an upper bound of probability; for example a “1 in 10,000" chance.” In other words, for every 10,000 people that could be exposed, one extra cancer may occur as a result of exposure to site contaminants. EPA’s target range for acceptable cancer risk is “1 in 1,000,000" to “1 in 10,000." These probabilities are often expressed in scientific notation (i.e., 1 x 10-6 or 1E -6 to 1 x 10-4 or 1E -4). An extra cancer case means that one more person could get cancer than would normally be expected to from all other causes. For non-cancer health effects, EPA calculates a “hazard index.” The key concept here is that a “threshold level” (measured usually as a hazard index less than 1) exists below which non-cancer health effects are no longer predicted.

In Step 4, EPA determines whether site risks are great enough to cause health problems for people at or near the Superfund site. The results of the three previous steps are combined, evaluated, and summarized.

**Ecological Risk**

Current EPA guidance recommends an eight-step process for designing and conducting ecological risk assessments (ERAs) for the Superfund Program. Steps 1 and 2 constitute a screening level ecological risk assessment (SLERA), which compares existing site data to conservative screening level values to identify those chemicals which can confidently be eliminated from further evaluation, and those for which additional evaluation is warranted. At the end of Step 2, all involved parties meet and discuss whether: there is adequate information to conclude that ecological risks are negligible and therefore no need for remediation on the basis of ecological risk; if the information is not adequate to make a decision at this point, the ERA process will continue to Step 3; or the information indicates a potential for adverse ecological effects, and a more thorough assessment is warranted.

If further evaluation is warranted, Step 3 of the eight-step process is initiated as the planning and scoping phase for implementing a baseline ecological risk assessment (BERA). Step 3 includes several activities, including refinement of the list of contaminants of potential concern (COPCs), further characterization of ecological effects, refinement of information regarding contaminant fate and transport, complete exposure pathways, ecosystems potentially at risk, selecting assessment endpoints, and developing a conceptual model with working hypotheses or questions that the site investigation will address. In Step 4, a sampling and analysis plan (SAP) is developed and used to gather further data to support the BERA. Step 5 is a site visit to verify the Step 4 sampling design. Step 6 of the process is the actual data collection for the BERA. Step 7 is the summary and analysis of the data, and prediction of the likelihood of adverse effects based on the data analysis, which is presented as the risk characterization. It also includes consideration of uncertainties and ecological significance of risks in view of the types and magnitude of effects, spatial and temporal patterns, and likelihood of recovery. Step 8, the final step, results in a discussion of significant risks, recommended cleanup (if any), and future efforts.

The following are the primary, global RAOs developed for contaminated soil and ground water at the Site:

**Soil**

The RAOs developed for contaminated soil at the site are to:

* Prevent ingestion, inhalation, or direct contact with surface soil that contain concentrations in excess of the RGs.
* Control migration and leaching of contaminants in soil to groundwater that could result in groundwater contamination in excess of Maximum Contaminant Levels (MCLs) or health-based levels.
* Prevent ingestion or inhalation of soil particulates in air that contain concentrations in soil in excess of the RGs.
* Permanently and/or significantly reduce the mobility/toxicity/volume (M/T/V) of characteristic hazardous waste with treatment.
* Control future releases of contaminants to ensure protection of human health and the environment.

**Groundwater RAOs**

The RAOs developed for contaminated groundwater at the site are to:

* Prevent ingestion or direct contact with groundwater containing constituents at concentrations in excess of current federal regulatory drinking water standards (MCLs), current MDEQ MCLs, total HIs greater than 1, and a cumulative excess lifetime cancer risk of greater than 1E-06.

All remedial actions should have the objective and intent of achieving, meeting, or addressing (or supporting the achievement of) one or more of these primary, global RAOs for the Site.

**Description Of Alternatives**

The alternatives for this site are described below. The detailed description of alternatives includes: (1) a list of the remedy components organized by media, zone or support operation, (2) a description of the remedy component as to its implementation, construction or operation, and (3) a list of RAOs, which the remedy component is expected to address, meet, or achieve. The description of the No Action alternative does not follow this organization precisely because of its lack of remedial actions.

Additional information on the cleanup options developed for the Site can be found in the July 2009 ***Remedial Investigation/Feasibility Study*** in the ***Administrative Record*** at the De Soto Trail Regional Library. EPA is seeking comments on these options and the preferred alternative described in this document before selecting a remedy for the Site. (See page 1 for meeting and public comment period).

**Remedial Alternatives**

The remedial alternatives described below are separated by media; however, due to the shallow water table in the shallow aquifer, the remedial alternatives for soil also address the shallow groundwater contamination.

**ALTERNATIVE S1: No Action**

***Estimated Capital Cost: $0***

***Estimated Present Worth Cost for Monitoring: $93,850***

This alternative is a required component of the FS, and provides a comparative basis for the other alternatives. The no action alternative would result in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure. Therefore, the Five-Year Review Report (5YRR) cycle would be enacted as a consequence of this alternative. Five-year reviews performed over the course of a 30-year period result in a total of six (6) five-year reviews. Optionally, the review can also include a minimal sampling and analysis task (e.g., ground water samples collected from existing monitoring wells) which would be performed immediately prior to each 5YRR cycle to support the evaluation of Site conditions as part of the site review process. Analytical costs likely will vary over time for the duration of the action; however, to evaluate and compare costs among alternatives, a single present-worth cost was calculated for a 30-year remediation period.

**ALTERNATIVE S2: Excavation, Ex Situ Solidification/Stabilization, Offsite Disposal, and Containment**

***Estimated Capital Cost: $19,131,590***

***Estimated O&M Cost: $13,360,500***

***Estimated Present Worth Cost: $32,492,090***

Alternative S2 entails the excavation of surface soils with contaminant concentrations above the target cleanup levels, then ex situ S/S and offsite disposal of the treated material. The contaminated soils will be excavated using standard earthmoving equipment. The surface soil excavations will extend to a depth of 1 foot bgs. Subsurface soils will only be excavated in areas outside the vertical barrier wall and will extend to only the ground water table at most (expected to be approximately 5 ft bgs). It should also be noted that even those excavations above the water table may encounter perched ground water which will require dewatering. Included in this alternative are appropriate remedy support tasks that facilitate or support the effectiveness of the primary remedy components.

In general, an ex situ S/S system would involve an assembly of mixers, chemical storage, feeding devices, pumps, conveyers, and ancillary equipment. The actual choice and configuration of equipment would be decided by the treatment approach. Typically, a pug mill is used to mix soils with S/S reagents in either a batch or continuous mode. Treatability studies would be needed to determine appropriate S/S techniques and reagents for the Camilla Wood contaminants. Also, leachability analyses would be needed to confirm effectiveness of the S/S.

After the contaminated soils have been treated, the material will be disposed offsite at an appropriate non-hazardous or hazardous waste landfill depending on the characteristics of the treated soil. The S/S soils will be tested to verify that they meet the disposal criteria of the landfill.

Alternative S2 also consists of the installation of a vertical barrier wall around the shallow groundwater source area and in situ compression grouting (to remediate karst features which could provide a pathway for contamination to migrate from the shallow zone to the intermediate zone).

**ALTERNATIVE S3: Removal, Onsite Treatment, and Onsite Disposal**

***Estimated Capital Cost: $53,023,750***

***Estimated O&M Cost: $30,340***

***Estimated Present Worth Cost: $53,054,090***

Alternative S3 involves excavation of all contaminated soils at the site in excess of the site cleanup goals, including soil below the water table. Excavation of contaminated soils below the water table will require dewatering the excavation area and the installation of sheet piles to keep water out of the excavation. Due to the observations of free product in two shallow monitoring wells (MW05S and MW07S) in the north and east portions of the site in the vicinity of the former cooling ponds and treatment process areas, DNAPL is expected to be encountered during excavation and dewatering activities. The vertical extent of the soil contamination has not been delineated at the site, but the presence of free product in the northern and eastern portions of the site strongly suggest the possibility that contamination in excess of RGs may extend to the clay aquitard particularly in the former pond and process areas. The surface soil excavations will extend to a depth of 1 foot bgs and the subsurface soil excavations will extend to the depth where there are no detections in excess of the RGs for subsurface soil at the site. Excavations to a depth of 5 feet or less can be performed using standard excavation techniques. It should also be noted that even those excavations above the water table may encounter perched groundwater which will require dewatering. Included in this alternative are appropriate remedy support operations and tasks that facilitate or support the effectiveness of the active remedy components.

The ex situ treatment technologies that passed the screening process are thermal desorption, bioremediation, and ex situ chemical oxidation. Treatability studies will be performed during the RD to determine the most effective treatment technology. For the 2009 RI/FS, it was assumed that thermal desorption treatment will be the most efficient method to remediate the contaminated soils.

**ALTERNATIVE S4: Excavation, In Situ Source Treatment, Ex Situ Stabilization/Solidification Offsite Disposal, and Compression Grouting**

***Estimated Capital Cost: $29,103,760***

***Estimated O&M Cost: $30,340***

***Estimated Present Worth Cost: $29,134,100***

Alternative S4 involves excavation of contaminated soils in the source area (along north and east boundaries of the site in the vicinity of the cooling ponds and treatment process areas) to the water table, followed by in situ stabilization/solidification within the source area below the water table to the clay aquitard (typically encountered within 20 feet of ground surface). Alternative S4 also includes excavation of the top 2 feet of contaminated soil with concentrations exceeding site cleanup goals. Excavated soil will be stabilized/solidified along with the 10,000 cy covered contaminated soil pile for offsite disposal. To prevent or reduce continued migration of contaminated ground water from the shallow zone to the intermediate zone, karst features previously and yet to be identified which are found to be sources of migration from the shallow to the intermediate zone will be sealed using compression or jet grouting. Excavations to a depth of 5 feet or less can be performed using standard excavation techniques. It should also be noted that even those excavations above the water table may encounter perched groundwater which will require dewatering. Included in this alternative are appropriate remedy support tasks that facilitate or support the effectiveness of the primary remedy components.

**ALTERNATIVE S5: In Situ Stabilization/Solidification Source Containment, and Stormwater Improvements**

***Estimated Capital Cost: $10,660,980***

***Estimated O&M Cost: $30,340***

***Estimated Present Worth Cost: $10,691,320***

Alternative S5 involves in situ stabilization/solidification of contaminated soils in the source area (along north and east boundaries of the site in the vicinity of the cooling ponds and treatment process areas) to the water table. Alternative S5 also includes in situ stabilization/solidification of the top 2 feet of contaminated soil with concentrations exceeding site cleanup goals outside the highly contaminated source area. To prevent or reduce continued migration of contaminated ground water from the shallow zone to the intermediate zone, karst features previously and yet to be identified which are found to be sources of migration from the shallow to the intermediate zone will be sealed using compression or jet grouting. In order to prevent continued migration of contaminants from the highly contaminated shallow groundwater source area, a vertical barrier wall will be installed around the perimeter of the source area. Included in this alternative are appropriate remedy support tasks that facilitate or support the effectiveness of the primary remedy components.

Since Alternative S5 will render a large area of the site impermeable, the alternative will have to include stormwater improvements and enhancements to offset the reduction in infiltration. These stormwater improvements will be developed during the Remedial Design phase.

**ALTERNATIVE GW1: No Action**

***Estimated Capital Cost: $0***

***Estimated O&M Cost: $184,680***

***Estimated Present Worth Cost: $184,680***

Alternative GW1 would not involve any remedial actions, and the site would remain in its present condition. This alternative, required by the NCP and CERCLA, is a baseline alternative against which the effectiveness of the other alternatives can be compared. Under the no action alternative, the site is left "as is" and no funds would be expended for monitoring, control, or cleanup of the contaminated groundwater. However, 5-year reviews of the site would be required under CERCLA; therefore, funds would be expended to conduct the reviews. It is anticipated that each 5-year review would consist of a site visit and report preparation.

**ALTERNATIVE GW2: In Situ Chemical Oxidation**

***Estimated Capital Cost: $2,656,880***

***Estimated O&M Cost: $272,080***

***Estimated Present Worth Cost: $2,928,960***

For this alternative, injection points would be installed within the contaminant plume to deliver a chemical oxidant to treat the dissolved phase contamination in the intermediate aquifer. A treatability study conducted on contaminated groundwater and aquifer material from the site determined that treatment using potassium permanganate would effectively reduce groundwater concentrations in the intermediate aquifer to below the RGs for the site.

**Remedial Alternatives Evaluation**

A summary of EPA's comparison of the alternatives to address risks posed by ground water contamination at OU2 is discussed below.

The objective of this section is to compare and contrast the alternatives so that decision makers may select a preferred alternative for presentation in the ROD.

EPA will recommend the cleanup alternative which provides the best balance of the first seven of the nine evaluation criteria discussed in the inset box on the following page. If an alternative does not meet threshold criteria, EPA does not consider the alternative further. After seeking concurrence from the State of Georgia and considering public comment, EPA will determine state and community acceptance and may modify the preferred alternative or certain of its aspects in its ROD.

For the Camilla Wood Treatment (Escambia) Site, the following alternatives were considered potentially effective at attaining the remedial goals in the soil and ground water at the Site:

* Alternative S1 – No Action
* Alternative S2 – Excavation, Ex Situ Solidification/Stabilization, Offsite Disposal, and Containment
* Alternative S3 – Removal, Onsite Treatment, and Onsite Disposal
* Alternative S4 – Excavation, In Situ Source Treatment, Ex Situ Stabilization/Solidification, Offsite Disposal, and Compression Grouting
* Alternative S5 – In Situ Stabilization, Source Containment, and Stormwater Improvements
* Alternative GW1 – No Action
* Alternative GW2 - In Situ Chemical Oxidation

**CRITERIA FOR EVALUATING REMEDIAL ALTERNATIVES**

In selecting a preferred cleanup alternative, EPA uses the following criteria to evaluate those screened in the **Feasibility Study (FS)**. The first two criteria are threshold criteria and must be met for an option to be considered further. The next five are balancing criteria for weighing the merits of those that meet the threshold criteria. The final two criteria are used to modify EPA's proposed plan based on state and community input. All nine criteria are explained in more detail here.

1. **Overall Protection of Human Health and the Environment** – Eliminates, reduces, or controls health and environmental threats through institutional or engineering controls or treatment.
2. **Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)** – Compliance with Federal/State standards and requirements that pertain to the site or whether a waiver is justified.
3. **Implementability** – Technical feasibility and administrative ease of conducting a remedy, including factors such as availability of services.
4. **Short-Term Effectiveness** – Length of time to achieve protection and potential

impact of implementation.

1. **Long-Term Effectiveness and Permanence** – Protection of people and environment after cleanup is complete.
2. **Reduce Toxicity, Mobility, or Volume by Treatment** – Evaluates the alternative’s use of treatment to reduce the harmful effects of principal contaminants and their ability to move in the environment.
3. **Cost** – Benefits weighed against cost.
4. **State Acceptance** – Consideration of state's opinion of the preferred alternative(s).
5. **Community Acceptance** – Consideration of public comments on the Proposed Plan.

**Overall Protection of Human Health and the Environment** – Alternative S1 would not be protective. Alternatives S2, S3, S4, and S5 would all provide high levels of protection of human health and the environment. All alternatives have elements that are more protective than the others to some degree. For instance, although Alternative S3 would be the most protective after completion of the remedy, the construction aspects associated with dewatering and excavating below the water table would increase the risks of exposure to workers and nearby residents during construction activities.

Similarly, Alternative GW1 would not be protective. Alternative GW2 would reduce contaminant levels in the intermediate aquifer to below the remedial goals for the site.

**Compliance with ARARs** – Alternatives S2 through S5 and GW2 are all anticipated to comply with ARARs over the long term and will be evaluated against the remaining criteria.

**Long-Term Effectiveness and Permanence -** Alternatives that physically remove contaminants from the Site media, such as Alternative S3, provide the most protection for the longest period of time (i.e., contaminants present at the initiation of the remedial action do not return to the Site). Unfortunately, isolation-based remedial alternatives do not provide that benefit to a site. The long-term effectiveness and permanence of containment-based remedies rely on the long-term stability of the geochemical conditions for long-term protectiveness. Alternative S2 would leave contamination below the water table within an impermeable barrier wall; however barrier walls have been demonstrated to be effective over long periods for sites with similar conditions to those found at the Camilla Wood Treatment Site. The long-term effectiveness of Alternatives S4 and S5 are expected to be similar to Alternative S2.

**Reducing Toxicity, Mobility or Volume through Treatment (T/M/V)** – All of the remedial alternatives which met the threshold criteria contain some degree of treatment as a primary component of the remedy. Alternative S3 provides the greatest reduction of T/M/V by completely removing all soil above and below the water table which exceeds the remedial goals for the site and treating it to levels which achieve remedial goals which are protective. The solidification/stabilization remedial alternatives (Alternatives S2, S4, and S5) all provide treatment to reduce the toxicity and mobility of site contaminants. Between Alternatives S2, S4, and S5, Alternative S4 provides a greater degree of source treatment because a larger volume of highly contaminated source soils are stabilized which reduces both toxicity and mobility. Alternatives S2 and S5 compensate by providing added containment in the form of a vertical barrier wall around the untreated areas.

**Short-Term Effectiveness** - The short-term effectiveness of remedial alternatives relates to how well human health and the environment are protected (the first threshold criterion) and attains ***ARARs*** (the second threshold criterion) during implementation. The No Action alternative is the best approach for minimizing added exposure or risk to receptors in the short-term.

In some cases, implementation of the alternative could temporarily increase risk and exposure pathways to receptors. All alternatives evaluated for this Site disrupt the local environment to some degree. Alternative S3 requires the installation of sheet piling and dewatering the shallow aquifer to allow excavation of all contaminated soils and NAPL above site remedial goals, within constraints created by the Site’s physical configuration. Alternatives S2 and S4 require offsite disposal and would therefore increase risks somewhat due to the transportation of contaminated material between the site and the offsite disposal location. Alternative S5 would provide the best level of short-term effectiveness among the active treatment alternatives since the remedy would be implemented in situ. The effectiveness of remedial actions at ensuring short-term protection during implementation of a remedial action depends on the care and attention to detail exhibited by the remediation personnel.

**Implementability** - Implementing remedial alternatives involves design, planning, construction or installation, and operation of the various mechanical and human components of remedial actions. The efficiency with which an alternative can be installed and operated impacts how well an alternative achieves its level of protection (the first threshold criterion) and attains ARARs (the second threshold criterion). In some cases, implementation of the alternative could be technically difficult or impossible given site-specific limitations. The No Action alternative is the simplest alternative to implement. The remaining active alternatives rely on construction activities to implement the remedy. None of the alternatives involve any new or unproven technologies.

Alternative S3 would be the most problematic from an implementability standpoint due to the amount of water that would need to be removed from the excavation. The water would then need to be treated or managed. In addition, the depth of the excavation near the roads and residential area adjacent to the site would require engineering measure to protect their structural integrity. Time estimates for attainment of ARARs or remedial goals are highly subjective and dependent on site-specific conditions, operation efficiency, initial and final concentrations, and many other parameters. The No Action alternative is the simplest and quickest to implement, but it takes the longest time to achieve remedial objectives. The implementation of the remedy components for all of the active remedial alternatives is expected to take no more than 6-12 months for any of the alternatives. Once isolated, the RAOs for containment are considered met.

**Cost -** Cost of alternatives ranked from most to least expensive: Alternative S3: $53,054,090, Alternative S2: $32,492,090, Alternative S4: $29,134,100, Alternative S5: $10,691,320, and Alternative S1: $93,850.

**State Acceptance –** The Georgia Environmental Protection Division has been involved in the RI/FS process and has not expressed any opposition to the Preferred Alternative.

**Community Acceptance -** Community acceptance of the Preferred Alternative will be evaluated after the Proposed Plan comment period ends and will be described in the Responsiveness Summary of the ROD Amendment.

**EPA’s Preferred Alternative**

The recommended site-wide remedial alternative is a combination of Alternative S5 – In Situ Stabilization, Source Containment, and Stormwater Improvements and alternative GW2 – In situ Chemical Oxidation. At a combined site-wide cost of $13,620,280, the preferred alternative will eliminate the risks of exposure to contaminant concentrations exceeding the remedial goals for the site in both soil and groundwater. Additionally, the remedy is expected to achieve all site ARARs and be completed within 6 to 9 months of the start of remedial activities. Monitoring of groundwater would need to continue beyond completion of construction activities.

**Institutional controls** will be required as part of the selected remedy. Institutional Controls are non-engineering measures which usually include legal controls to affect human activities in such a way so as to prevent or reduce exposure to contamination. The purpose of the Institutional Controls is to impose on the subject property “use” restrictions for the purpose of implementing, facilitating, and monitoring a remedial action to reduce exposure, thereby protecting human health and the environment. Some of the controls which will be generally implemented include, but are not limited to the following:

1. The property would be for recreational uses only.
2. Restrictive covenants would prohibit potable ground water use on the Camilla Wood Treatment property.
3. Ground water use ordinances would mandate restrictions on ground water extraction for potable use.
4. Soil removal or digging is prohibited within the boundary of the treated material disposal area on the Camilla Wood Treatment property.
5. No excavation on the Camilla Wood Treatment property shall occur without written approval from EPA and GEPD.

Permanent access to the property shall be granted to EPA, GEPD, and their agents and/or representatives.

Based on the information currently available, EPA and the State of Georgia believe the Preferred Alternative meets the threshold criteria and provides the best balance of tradeoffs among the other alternatives with respect to the balancing and modifying criteria. EPA expects the Preferred Alternative to satisfy the statu­tory requirements of CERCLA §121(b). Specifically, the alternative will be protective of human health and the environment, will comply with ARARs, will be cost-effective, and will utilize permanent solutions and alternative and sustainable technologies to the maximum extent possible. The Preferred Alternative may change in response to public comment or new information. The total present worth of EPA’s Preferred Alternative is $13,620,280.

**Community Role in the Selection Process**

EPA relies on public input to ensure the concerns of the community are considered in selecting an effective remedy for each Superfund Site. The Administrative Record and Information Repositoriesfor the Camilla Wood Treatment Site are locatedat:

De Soto Trail Regional Library

145 East Broad Street

Camilla, Georgia 31730

Hours: Mon, Tue, and Thur 9:00 am - 7:00 pm

Wed and Fri 9:00 am – 5:30 pm

Sat 9:00 am -12:30 pm

Phone (229) 336-8372

and

U.S. EPA Records Center Region 4

61 Forsyth Street, SW

Atlanta, Georgia 30303

Hours: Mon-Fri 7:30 am - 4:30 pm

Phone (404) 562-8835

The dates for the public comment period are August 12 through September 10, 2009. **Your written comments can be submitted to Ms. Angela Miller at USEPA, 61 Forsyth Street, Atlanta, GA 30303 and must be postmarked no later than midnight September 10, 2009.**

The date of the public meeting is scheduled for August 18, 2009. The meeting will be held at:

De Soto Trail Regional Library

145 East Broad Street

Camilla, Georgia 31730

At the public meeting the EPA will present its understanding of the Site, describe its reasoning for the Preferred Alternative presented in this Proposed Plan, and answer any questions.

After EPA has received comments and questions during the public comment period, EPA will summarize the comments and provide responses in a document called the **Responsiveness Summary**. The Responsiveness Summary will be included in the ROD. The ROD will describe the final alternative selected by EPA and will provide the rationale for its selection.

Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6

Figure 7

**Criteria For Evaluating Remedial Alternatives**

In selecting a preferred cleanup alternative, EPA uses the following criteria to evaluate those screened in the **Feasibility Study (FS)**. The first two criteria are threshold criteria and must be met for an option to be considered further. The next five are balancing criteria for weighing the merits of those that meet the threshold criteria. The final two criteria are used to modify EPA's proposed plan based on state and community input. All nine criteria are explained in more detail here.

1. **Overall Protection of Human Health and the Environment** – Eliminates, reduces, or controls health and environmental threats through institutional or engineering controls or treatment.
2. **Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)** – Compliance with Federal/State standards and requirements that pertain to the site or whether a waiver is justified.
3. **Implementability** – Technical feasibility and administrative ease of conducting a remedy, including factors such as availability of services.
4. **Short-Term Effectiveness** – Length of time to achieve protection and potentialimpact of implementation.
5. **Long-Term Effectiveness and Permanence** – Protection of people and environment after cleanup is complete.
6. **Reduce Toxicity, Mobility, or Volume by Treatment** – Evaluates the alternative’s use of treatment to reduce the harmful effects of principal contaminants and their ability to move in the environment.
7. **Cost** – Benefits weighed against cost.
8. **State Acceptance** – Consideration of state's opinion of the preferred alternative(s).
9. **Community Acceptance** – Consideration of public comments on the Proposed Plan.

**GLOSSARY**



**Administrative Record:** All documents which EPA considered or relied on in selecting the response action at a Superfund site, culminating in the record of decision for remedial action or, an action memorandum for removal actions, usually placed in the information repository near the Site.

**Applicable or Relevant and Appropriate Requirements (ARARs):** Any state or federal statute that pertains to protection of human health and the environment in addressing specific conditions or use of a particular cleanup technology at a Superfund site.

**Baseline Risk Assessment:** A qualitative and quantitative evaluation performed in an effort to define the risk posed to human health and the environment by the presence or potential presence and use of specific pollutants.

**Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):** Also known as **Superfund**, is a federal law passed in 1980 and modified in 1986 by the Superfund Amendment and Reauthorization Act (SARA); the act created a trust fund, to investigate and cleanup abandoned or uncontrolled hazardous waste sites. The law authorizes the federal government to respond directly to releases of hazardous substances that may endanger public health or the

environment. EPA is responsible for managing the Superfund.

**Contaminants of Concern (COCs)**: Constituents associated with a site which have been released into the environment.

**Feasibility Study**: Study conducted after the Remedial Investigation to determine what alternatives or technologies could be applicable to the site specific COCs.

**Ground water**: The supply of fresh water found beneath the Earth’s surface (usually aquifers) which is often used for supplying wells and springs.

**Hot Spots:** Subsurface areas of the Site where a high concentration of contamination has been found.

**Information Repository**: In the Superfund program, a file that contains accurate, up-to-date documents on a Superfund site. The file is usually located in a public building (school, library, or city hall) convenient for local residents.

**Institutional Controls**: Restriction that prevents the owner inappropriately developing the property. The restriction could be implemented as a “deed Restriction” and is designed to prevent harm to workers o r potential residential development.

**National Contingency Plan (NCP)**: The Federal Regulation that guides the Superfund program. The NCP was revised in February 1990.

**Operation and Maintenance (O&M)**: Activities conducted at sites after cleanup remedies have been constructed to ensure that they are properly functioning.

**Proposed Plan**: Superfund public participation fact sheet which summarizes the preferred cleanup strategy and the rationale and a summary of the RI/FS.

**Public Comment Period:** The time allowed for the public to express its views and concerns regarding an action by EPA (e.g. a Federal Register Notice of proposed rule-making, a public notice of a draft permit, or a Notice of Intent to Deny).

**Record of Decision (ROD)**: A public document describing EPA's rationale for selection of a Superfund cleanup alternative.

**Remedial Investigation/ Feasibility Study (RI/FS):** A two part investigation conducted to fully assess the nature and extent of the release, or threat of release, of hazardous substances, pollutants, or contaminants, and to identify alternatives for clean up. The Remedial Investigation gathers the necessary data to support the corresponding Feasibility Study.

**Response Action:** 1. Generic term for actions taken in response to actual or potential health-threatening environmental events such as spills, sudden releases, and asbestos abatement/management problems. 2. A CERCLA-authorized action involving either a short-term removal action or a long-term removal response. This may include but is not limited to: removing hazardous materials from a site to an EPA-approved hazardous waste facility for treatment, containment or treating the waste on-site, identifying and removing the sources of ground-water contamination and halting further migration of contaminants. 3. Any of the following actions taken in school buildings in response to AHERA to reduce the risk of exposure to asbestos: removal, encapsulation, enclosure, repair, and operations and maintenance.

**Responsiveness Summary**: A summary of oral and written comments received by EPA during a comment period on key EPA documents, and EPA’s responses to those comments. The responsiveness summary is a key part of the ROD, highlighting community concerns for EPA decision-makers.

**Superfund:** The program operated under the legislative authority of CERCLA and SARA that funds and carries out EPA solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising cleanup and other remedial actions.

USE THIS SPACE TO WRITE YOUR COMMENTS

***Your input on the Proposed Plan for the Camilla Wood Treatment Superfund Site is important in helping EPA select a remedy for the site. You may use the space below to write your comments, then fold and mail. A response to your comment will be included in the Responsiveness Summary.***



***CAMILLA WOOD TREATMENT (ESCAMBIA) SUPERFUND SITE***

**PUBLIC COMMENT SHEET**

**------------------------------------------------------------------------------------------------------**

Place

Stamp

Here

Name

Address

City State Zip

Scott Miller, Remedial Project Manager

U. S. EPA, Region 4

Superfund Remedial Branch

Superfund Division

61 Forsyth St., SW

Atlanta, GA 30303