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FINAL DECISION DOCUMENT FOR THE RAVINES AND BEACH AREA STUDY AREAS OF THE SURPLUS OPERABLE UNIT FORT SHERIDAN, ILLINOIS

October 12, 1998

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approved for public release

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U.S. ARMY ENVIRONMENTAL CENTER
Base Closure Division
Aberdeen Proving Ground, Maryland 21010-5401

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13. ABSTRACT *(Maximum 200 words)*

This Decision Document (DD) has been prepared for the ravines and Beach Area study areas of the Surplus Operable Unit (OU), Fort Sheridan, Illinois. The ravines are Janes Ravine and Hutchinson Ravine. This DD addresses only the ravines and Beach Area study areas of the Surplus OU. The DD presents the Army's determination that No Response Action is necessary for the ravines and Beach Area study areas. The baseline risk assessment determined that no unacceptable potential human health or ecological risks are associated with the ravines and Beach Area study areas. Therefore, No Response Action is necessary at the ravines and Beach Area study areas for the protection of human health and the environment. The Decision Document explains the factual and legal basis for the determination that No Response Action is necessary for the ravines and Beach Area study areas. The information supporting this No Response Action decision is contained the Administrative Record for the Surplus OU.

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DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
BASE REALIGNMENT AND CLOSURE PROGRAM

Final Decision Document for the Ravines and Beach Area Study Areas of the Surplus Operable Unit Fort Sheridan, Illinois

Prepared for:
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October 12, 1998

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In accordance with Army Regulation 200-2, this document is intended by the Army to comply with the National Environmental Policy Act of 1969.

DECLARATION

Determination of No Response Action for the Ravines and Beach Area Study Areas of the Surplus Operable Unit Fort Sheridan, Illinois

Site Name and Location

This Decision Document (DD) has been prepared for the ravines and Beach Area study areas of the Surplus Operable Unit (OU), Fort Sheridan, Illinois. The ravines are Janes Ravine and Hutchinson Ravine. This DD addresses only the ravines and Beach Area study areas of the Surplus OU. Remedy selection for the other Surplus OU study areas were addressed under separate DDs or will be addressed in future DDs. The content of this DD is based on recommendations in the U.S. Environmental Protection Agency (USEPA) Interim Final Guidance on Preparing Superfund Decision Documents (USEPA, 1989) and the USEPA Guide to Developing Superfund No Action, Interim Action, and Contingency Remedy ROD's (USEPA, 1991).

Statement and Basis of Purpose

This DD presents the determination that No Response Action is necessary for the ravines and Beach Area study areas, chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This DD explains the factual and legal basis for the determination that No Response Action is necessary for the ravines and Beach Area study areas. The information supporting this No Response Action decision is contained in the Administrative Record for the Surplus OU. The Administrative Record Index is located in Appendix A.

Description of the No Response Action Determination

The Army has determined that No Response Action is necessary for the ravines and Beach Area study areas. The baseline risk assessment (BRA) determined that no unacceptable potential human health or ecological risks are associated with the ravines and Beach Area study areas. Therefore, No Response Action is necessary at the ravines and Beach Area study areas for the protection of human health and the environment.

Declaration

No Response Action is necessary in order to ensure protection of human health and the environment at the ravines and Beach Area study areas under the future land use scenario of open space. The physical site characteristics, along with the mandated transfer of the property to the Lake County Forest Preserve District in the legislation adopted in Section 125 of the Fiscal Year 1966 Military Construction Appropriations Act (P.L. 104-32), will limit future use of these study areas to open space.

Lead Agency Acceptance of No Response Action Decision Document
Fort Sheridan
Ravines and Beach Area Study Areas of the Surplus OU

Signature sheet for the No Response Action Decision Document for the Ravines and Beach Area Study Areas of the Surplus OU at Fort Sheridan by the U.S. Army. Concurrence letters from the State of Illinois Environmental Protection Agency and the U.S. Environmental Protection Agency are provided in Appendix B.

Roy L. Higgins 21 Sep 98

Roy L. Higgins
Colonel, U.S. Army
Commanding Officer, Fort McCoy

Date

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Appendix A Administrative Record Index

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List of Acronyms and Abbreviations

ANL	Argonne National Laboratory
B172	Building 172
BCT	BRAC Cleanup Team
BRA	Baseline Risk Assessment
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COPCs	constituents of potential concern
CSA	coal storage area
DD	Decision Document
DoD	Department of Defense
ft-bgs	feet below ground surface
HI	hazard index
IEPA	Illinois Environmental Protection Agency
LF2	Landfill 2
MDL	method detection limit
OU	Operable Unit
PAHs	polynuclear aromatic hydrocarbons
POL	petroleum, oils, and lubricants
RAGS	Risk Assessment Guidance for Superfund
RI/FS	Remedial Investigation/Feasibility Study
SARA	Superfund Amendments and Reauthorization Act
SARN	Small Arms Range North
SVOCs	semi-volatile organic compounds
USEPA	U.S. Environmental Protection Agency
UXO	unexploded ordnance

1.0 Site Name, Location, and Description

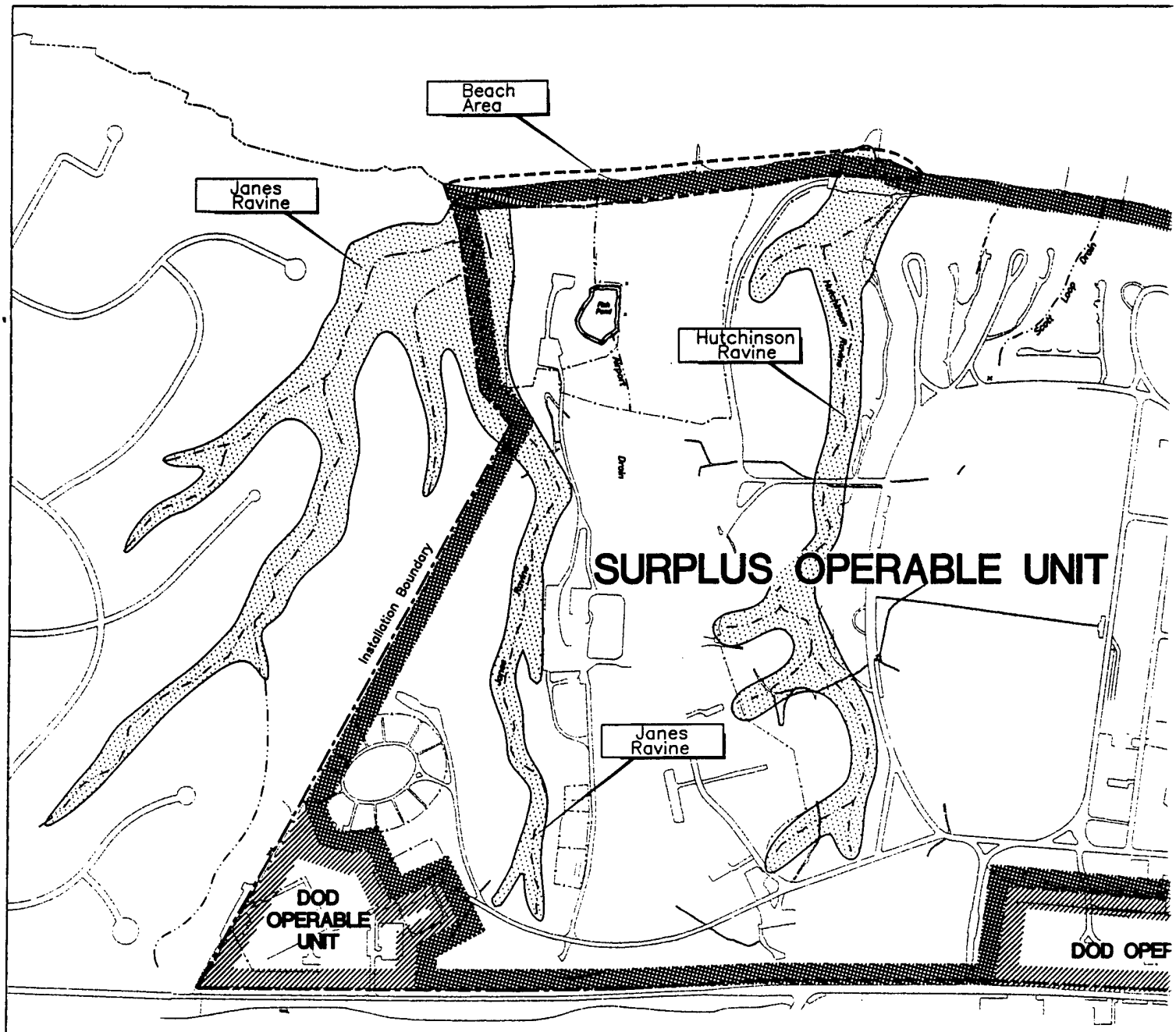
Fort Sheridan lies along the western shore of Lake Michigan and is bounded by the towns of Highwood to the west, Highland Park to the south, and Lake Forest to the north. Fort Sheridan covers an area of approximately 712 acres. The land occupied by Fort Sheridan is approximately 50 feet above Lake Michigan. The topography is relatively flat and gently sloping toward Lake Michigan. The lake side of the installation terminates in a bluff or embankment which extends the full length of the boundary and beyond.

Janes Ravine runs east to west along the northern boundary of Fort Sheridan. The ravine itself is relatively undisturbed and does not contain obvious sources of potential contamination (e.g., filled areas). Portions of this ravine do bound several other study areas, and stormwater runoff from these other study areas flows through the ravine.

Hutchinson Ravine runs east to west across the center of the Surplus OU. As with Janes Ravine, with the exception of the water treatment facility and Landfill 2 (LF2) in the small northern arm, the ravine is relatively undisturbed and does not exhibit any obvious sources of potential contaminants. Portions of this ravine do bound several other study areas, and stormwater runoff from these other study areas flows through the ravine.

The Beach Area is located on the eastern edge of the Surplus OU, starting at the base of the bluffs along Lake Michigan to approximately 10 feet out into the lake. Available information indicated that prior activities at the study area included the possible burning of off-specification munitions. In addition, the area may have been an occasional or accidental impact area for the former trap range and artillery firing points. The Beach Area was also identified as a potential unexploded ordnance (UXO) area.

In 1988, the Commission on Base Realignment and Closure (BRAC) recommended Fort Sheridan, Illinois for closure to the Secretary of Defense. To support decisions regarding preparation of the property for release, the Department of the Army has implemented environmental studies and will conduct restoration activities (if needed) before property transfer. The Army is conducting these activities under the Defense Environmental Restoration Program and the BRAC program. A remedial investigation/feasibility study (RI/FS) is currently being conducted for the Surplus OU at Fort Sheridan. The Surplus OU consists of property that has been declared excess by the Army and will be or has been transferred to the local communities. Hutchinson Ravine, Janes Ravine, and the Beach Area study areas are located within the Surplus OU (Figure 1-1). They have been segregated out from the Surplus OU in order to expedite the activities required to transfer this property. This Decision Document (DD) addresses only the aforementioned ravines and Beach Area study areas. A separate DD will be issued for the remaining portions of the Surplus OU [i.e., LF2, Small Arms Range North (SARN), and 38-Acre Parcel Fill Area].



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Revised JCF 07/20/98

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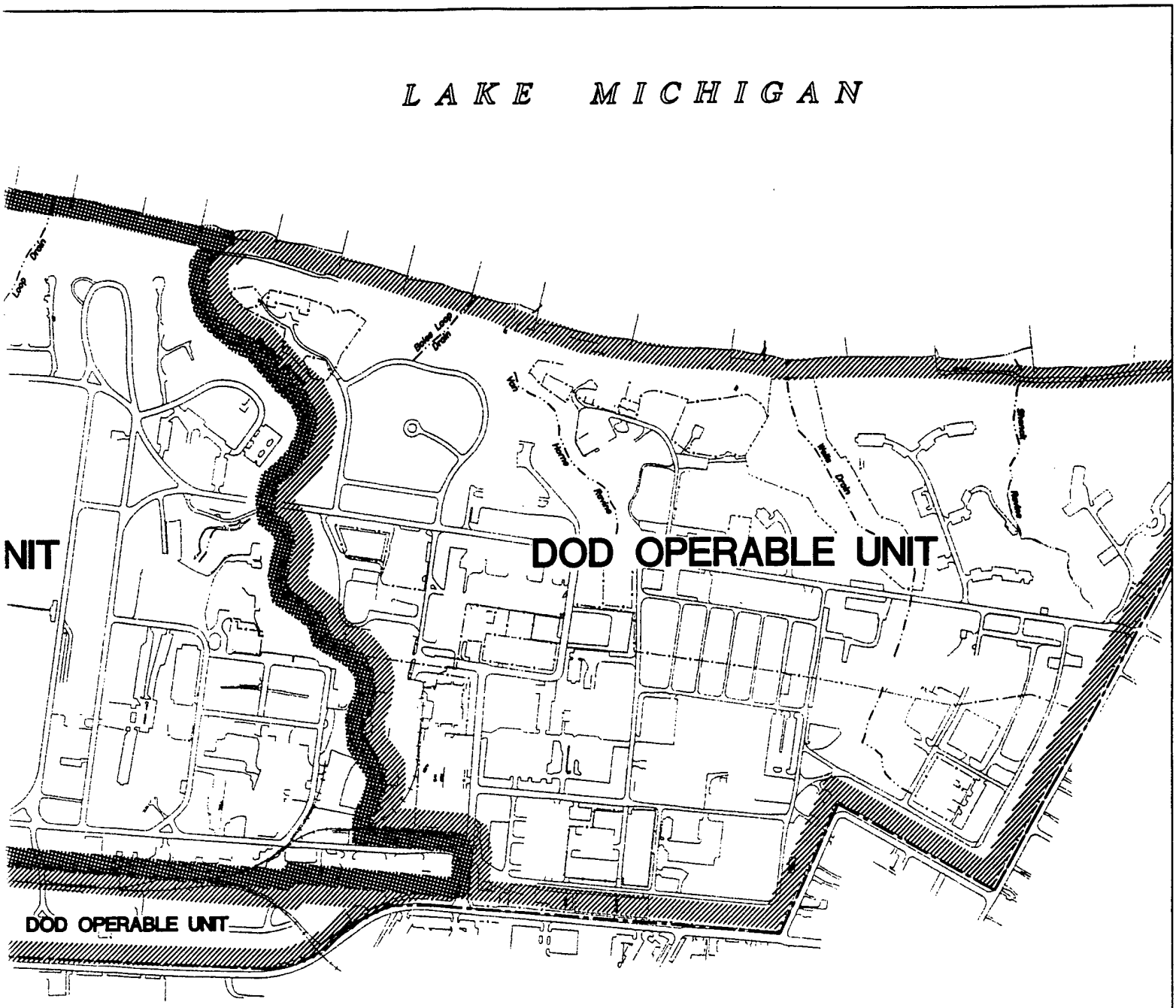
Installation information adapted from an aerial survey by Air Survey Corporation, Sterling, Virginia. Date of photography, 12/6,
Ravines, shoreline and roads north of Installation adapted from USGS 7.5' topographic quadrangle, Highland Park, Ill., 1963; p



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Photography, 12/6/95.
Park, Ill., 1963; photo revised 1972 & 1980.

Figure 1-1

Fort Sheridan Operable Units and the Ravines and Beach Area Study Areas

Draft Decision Document for the Ravines and Beach Area Study Areas of the Surplus Operable Unit

Fort Sheridan, Illinois

2

2.0 Site History and Enforcement Actions

Fort Sheridan is located approximately 25 miles north of Chicago along the western shore of Lake Michigan. The installation location is shown in Figure 1-1. Fort Sheridan, named for General Phil Sheridan, was established in 1887 in the wake of the Great Chicago fire of 1871 and at the request of Chicago city leaders following the labor riots of 1886.

In the mid-1800s, prior to the Army's presence, the area of Fort Sheridan was the site of heavy industry including logging, a lumber mill, leather tanning, brick making, and iron casting. Historians have asserted that, due to its industrial past and lack of railroad access, the property may have represented more of a liability than an asset to the owners from a development perspective. Furthermore, they have opined that the property was essentially "donated" to the Army so the federal government could deal with "the two mile stretch of lakefront and its deteriorating residue of abandoned industries" (Melichar, 1995). Nevertheless, land was donated to the government for a token fee of $10 by three members of the Commercial Club of Chicago: Adolphus Bartlett, Charles Hutchinson, and John Janes. Three ravines at Fort Sheridan are named for these individuals.

Troops trained at Fort Sheridan served in the Spanish-American War in 1898, the Mexican War in 1913, and World Wars I and II. Fort Sheridan was a training center for anti-aircraft artillery units during World War II. From the 1950s until 1974, Fort Sheridan served as maintenance and supply center to NIKE air-defense missile systems for the Chicago, Gary, Detroit, Minneapolis-St. Paul, and Milwaukee air-defense network.

Fort Sheridan was recommended for inclusion in the BRAC program in 1988. The installation ceased military operations as an Army facility in 1993. Portions of the installation were realigned to the U.S. Navy and U.S. Army Reserve. Approximately 100 acres are now owned by the U.S. Army Reserve and are used for equipment storage and disbursement, training, and administrative functions. Approximately 200 acres are now owned by the Navy and are used for family housing, administration, vehicle maintenance, communications, and training. Approximately 300 acres have been transferred to private ownership while the remainder of the installation (approximately 100 acres) is still under Army jurisdiction and will be transferred to private ownership upon completion of the environmental restoration activities.

Preliminary assessments of Fort Sheridan, conducted in 1982 and 1989, identified several areas on the installation affected by previous landfilling activities; storage and handling of petroleum, oils, and lubricants (POL), as well as other motor pool wastes; former coal storage areas (CSAs); and storage and handling of various chemicals [Gross *et al.*, 1982; Argonne National Laboratory (ANL), 1989]. The nature and duration of these activities at Fort Sheridan justified conducting an RI/FS to verify and quantify the nature and extent of associated chemical constituents in the environment, perform human

health and environmental risk assessments, and evaluate remedial action alternatives leading to individual study area response actions, if necessary.

Fort Sheridan was divided into two principal OUs in 1995 to facilitate the implementation of the subsequent RI/FS and expedite the reuse of surplus Army property under the BRAC program. The first OU, designated the Surplus OU, consisted of property still owned by the U.S. Army and planned for disposal and reuse. This area occupies the north end of Fort Sheridan and is primarily composed of the golf course and historic district. The second OU is designated the Department of Defense (DoD) OU since this area remains the property of the Navy and Army Reserves. It includes most of the area to the south of Bartlett Ravine and the Army Reserve area in the northwest corner of Fort Sheridan. The boundaries of the two OUs are indicated in Figure 1-1.

A three-phase RI was conducted at the ravines and Beach Area study areas from 1990 to 1996. Subsequent to the completion of the Phase III field work, the ravines and Beach Area study areas were segregated out from the Surplus OU to expedite the reuse of this property. The ravines and Beach Area study areas are indicated in Figure 1-1.

The Phase I RI was conducted at Fort Sheridan from 1990 through 1992. Data collected and analyzed during this initial phase of the RI work at Fort Sheridan addressed 37 study areas. The portion of the Phase I field effort specific to the ravines and Beach Area study areas consisted of UXO sweeps at the Beach Area to clear areas for sampling. Soil borings and monitoring wells were also completed at the Beach Area during Phase I. Water levels in some of the deeper wells are consistently artesian. Soil samples were collected from several of the soil borings that were subsequently converted to nested well pairs. In addition, surface water and sediment samples were collected at the Lake Michigan outfalls of Janes Ravine, Hutchinson Ravine, the Airport Drain, and a small unnamed outfall near Hutchinson Ravine.

Prior to Phase II field activities, background soil, sediment, surface water, and groundwater data were collected from several locations selected by the BRAC Cleanup Team (BCT) believed to be previously unaffected by Fort Sheridan mission-related activities. The background samples were collected to facilitate the development of a statistically defensible background database.

During the Phase II RI field effort, additional UXO avoidance surveys were conducted to clear areas for sampling at the Beach Area. Two soil borings were completed on the beach and two sediment samples were collected in Lake Michigan. In addition, surface water and sediment samples were collected from Janes and Hutchinson Ravines.

During the Phase III RI field effort, surface water and sediment samples were collected from Janes Ravine, Hutchinson Ravine, and Boles Loop Drain to support the ecological baseline risk assessment (BRA). The ecological sampling program consisted of sediment, surface water, and animal tissue

sampling. Sediment toxicity testing was conducted on the aquatic invertebrates *Hyalella azteca (H. azteca)* and *Lumbriculus variegatus (L. variegtus)*. In addition, groundwater acute toxicity tests were conducted on fathead minnows [*Pimephales promelas (P. promelas)*].

3.0 Highlights of Community Participation

The RI/BRA and Proposed Plan for the ravines and Beach Area study areas became final in April and June 1998, respectively. These documents are available to the public as part of the full Administrative Record File that is maintained at the Fort Sheridan BRAC Office, Building 379. The information repositories contain information similar to that contained in the Administrative Record, but are more focused on public information needs. The following facilities have been designated as information repositories:

Highwood Public Library
102 Highwood Avenue
Highwood, Illinois 60040
Phone: 847/432-5404

Hours:		
	Mon.-Thurs.	11:00 am - 7:00 pm
	Fri. & Sat.	10:00 am - 5:30 pm
	Sunday	Closed

Lake Forest Library
360 East Deerpath
Lake Forest, Illinois 60045
Phone: 847/234-0636

Hours:		
	Mon.-Thurs.	9:00 am - 9:00pm
	Fri. & Sat.	9:00 am - 5:00pm
	Sunday	Closed

Highland Park Public Library
494 Laurel Avenue
Highland Park, Illinois 60035
Phone: 847/432-0216

Hours:		
	Mon.-Thurs.	9:00 am - 9:00 pm
	Fri.	9:00 am - 6:00 pm
	Sat.	9:00 am - 5:00 pm
	Sunday	Closed

Fort Sheridan BRAC Office*
Building 379
Fort Sheridan, Illinois 60037-1289
Phone: 847/266-2907

Hours:		
	Mon.-Fri.	8:30 am - 5:00pm

* Location of Administrative Record

The notice of availability of these documents was published on June 11, 1998. A public comment period was held from June 11, 1998 to July 10, 1998. In addition, a public information session was held on June 25, 1998. At this meeting, representatives from the Army, U.S. Environmental Protection Agency (USEPA), and Illinois Environmental Protection Agency (IEPA) were available to address questions and receive comments about the No Response Action alternative under consideration. No requests for an extension were received. No comments were received during the public comment period.

4.0 Scope and Role of Response Action

This DD addresses the final remedy for the ravines and Beach Area study areas of the Surplus OU. Based on the evaluation of potential risks considering a future open space use scenario, the Army, in coordination with USEPA and IEPA, has determined that the constituents present at the ravines and Beach Area study areas do not pose sufficient risk to require a response action and has determined that no response action is necessary. Although low levels of constituents will remain in the sediments and surface water, they are present at levels that do not pose unacceptable human health or environmental risks.

Existing site conditions (the fact that these study areas are ravines or a narrow beach area), in combination with future use plans of the Lake County Forest Preserve District, make it highly unlikely that residential development would occur in the ravines or on the Beach Area. The legislation adopted in Section 125 of the Fiscal Year 1966 Military Construction Appropriations Act (P.L. 104-32) requires the Army to convey approximately 290 acres of open space, including the golf course, to the Lake County Forest Preserve District for use as open space. The ravines and Beach Area study areas are located entirely within the 290 acres to be transferred to the Lake County Forest Preserve District and, therefore, will be used as open space in the future.

In keeping with the overall response strategy, the recommended remedial action for the ravines and Beach Area study areas is No Response Action.

5.0 Summary of Site Characteristics

5.1 Janes Ravine

Janes Ravine is the northernmost ravine on Fort Sheridan and is among the least disturbed of the major ravines dissecting Fort Sheridan. Its eastern end forms the northern installation boundary as it joins Lake Michigan. The ravine bifurcates and the northern arm is not actually within the installation boundaries. The southern arm is entirely within the installation boundaries and was the primary focus of the RI activities. The southern arm of Janes Ravine is bounded on the north by the golf course. Along its southern edge lie a former ammunition storage area; two small former ammunition and pesticide storage buildings [Building 172 (B172) and B173]; a former pesticide formulation building, now used for storage of golf course maintenance equipment (B126); the former aircraft maintenance facility, now used for storage of golf course maintenance equipment (B117); and the former Nike site control area (B912).

Surface soil and sediment analytical data from samples collected in Janes Ravine generally were below the maximum detected concentrations in the background data set for metals and polynuclear aromatic hydrocarbons (PAHs). However, a few pesticides/herbicides were detected in some sampling locations at concentrations above the highest concentration in the background data set. Pesticide/herbicide concentrations were the highest in the sediment sample collected near the western boundary of Fort Sheridan. This location is proximal to a golf course green area and may be affected by previous and ongoing golf course maintenance practices (i.e., pesticide/herbicide concentrations detected in sediment samples may be related to application of these constituents during golf course maintenance activities).

PAHs were not detected above method detection limits (MDLs) in the surface water samples collected from Janes Ravine. Arsenic (total and dissolved) and chromium (total and dissolved) were generally not detected in the surface water samples at concentrations exceeding the maximum concentrations in the background data set. Total lead and/or dissolved lead were detected in some surface water samples at concentrations moderately exceeding the highest detected concentration in the background data set. A discharge pipe from B117 may have been the source for lead in Janes Ravine as the highest concentrations were generally detected in the B117 surface water sample and in samples collected downstream of that sampling location. A few pesticides/herbicides were detected in two surface water samples at concentrations exceeding the maximum concentrations in the background data set. These detections may be related to pesticide/herbicide application during golf course maintenance activities.

L. variegatus was cultured in one Janes Ravine sediment sample. Arsenic was detected in the *L. variegatus* tissue from the ravine sediment sample at a concentration similar to the reference sediment tissue sample and higher than in the control sediment tissue sample. Chromium and lead

were detected at higher concentrations than in the reference and control sediment tissue samples. Pesticides/herbicides were generally detected in the ravine sediment tissue sample at higher concentrations than in the reference sediment tissue sample. However, only p,p'-DDD and p,p'-DDE in the ravine sediment tissue sample were detected at higher concentrations than in the control sediment tissue sample. Whole sediment chronic toxicity tests conducted with *H. azteca* in Janes Ravine sediment did not demonstrate any adverse effects to the growth and survival of the organisms.

5.2 Hutchinson Ravine

Hutchinson Ravine is the next ravine south of Janes Ravine. It lies entirely within the boundaries of the installation. The western portions of the ravine are relatively undisturbed. The main ravine channel is bounded by several golf course holes and officer housing units. A small northeastern arm of Hutchinson Ravine has been filled and is now referred to as LF2. The former drinking water treatment plant for Fort Sheridan was constructed on the beach at the mouth of Hutchinson Ravine. As part of this construction, the stream in the bottom of the ravine was diverted to a culvert that lies near the treatment plant and discharges directly to Lake Michigan. The ravine also drains stormwater runoff from roads on the installation as well as offsite.

Sediment analytical data from Hutchinson Ravine generally were below the maximum detected concentrations in the background data set for arsenic and chromium. Lead was detected in several sediment samples at concentrations slightly exceeding the maximum concentration in the background data set. Most of the higher concentrations of lead were detected in the sediment samples collected from the north branch of the ravine that is located just downgradient (south) of LF2/SARN. The lead detected in these sediment samples likely originated from the filled northern portion of this branch of Hutchinson Ravine.

Benzo(a)pyrene and/or total carcinogenic PAHs were detected at concentrations exceeding the maximum concentration in the background data set in sediment samples collected along the central portion of the ravine's main channel. There is no known potential mission-related source of benzo(a)pyrene or total carcinogenic PAHs to this portion of Hutchinson Ravine as it is bounded only by the golf course and housing units. However, the ravine does receive stormwater runoff from the installation and surrounding off-site areas. In addition, some pesticides/herbicides were detected in sediment samples collected from the main channel at concentrations above the highest concentration in the background data set. The origin of pesticides/herbicides in the main channel sediment of Hutchinson Ravine is uncertain, but may be related to application during golf course or lawn maintenance activities, as several golf course holes and officer housing units are located adjacent to the ravine to the north and south.

Arsenic (total and dissolved) and chromium (total and dissolved) were not detected in the Hutchinson Ravine surface water samples at concentrations exceeding the maximum concentrations in the

background data set. Total lead and/or dissolved lead were detected in a few surface water samples at concentrations exceeding the highest detected concentration in the background data set. Most of the higher concentrations of lead were detected in the surface water samples collected from the north branch of the ravine that is located just downstream (south) of LF2/SARN. The lead detected in these surface water samples likely originated from the filled northern portion of this branch of Hutchinson Ravine, now referred to as LF2, or from the SARN.

Benzo(a)pyrene and/or total carcinogenic PAHs were detected at concentrations exceeding the maximum concentration in the background data set in one surface water sample collected along the west central portion of the ravine. There is no known potential mission-related source of benzo(a)pyrene or total carcinogenic PAHs to this portion of Hutchinson Ravine as it is bounded only by the golf course and housing units. However, the ravine does receive stormwater runoff from the installation and surrounding off-site areas. A few pesticides/herbicides were detected in surface water samples collected from the main channel of Hutchinson Ravine at concentrations exceeding the maximum concentrations in the background data set. The origin of pesticides/herbicides in the main channel surface water of Hutchinson Ravine is uncertain, but may be related to application during previous and ongoing golf course or lawn maintenance activities, as several golf course holes and officer housing units are located adjacent to the ravine to the north and south.

L. variegatus was cultured in one Hutchinson Ravine sediment sample. Arsenic was detected in the *L. variegatus* tissue from the ravine sediment sample at a concentration similar to the reference sediment tissue sample and higher than in the control sediment tissue sample. Chromium was not detected above MDLs in the ravine sediment sample. Lead was detected at a higher concentration than in the reference and control sediment tissue samples. Pesticides/herbicides were generally detected in the ravine sediment tissue sample at higher concentrations than in the reference sediment tissue sample. However, only p,p'-DDD and p,p'-DDE in the ravine sediment tissue sample were detected at higher concentrations than in the control sediment tissue sample. Whole sediment chronic toxicity tests conducted with *H. azteca* in Hutchinson Ravine sediment did not demonstrate any adverse effects to the growth and survival of the organisms.

5.3 Beach Area

The Beach Area is located on the eastern portion of the Surplus OU, starting at the base of the bluffs along Lake Michigan to approximately 10 feet out into the lake. Available information indicated that prior activities at the study area included the possible burning of off-specification munitions. In addition, the area may have been an occasional or accidental impact area for the former trap range and artillery firing points. The Beach Area was also identified as a potential UXO area.

Given the high energy depositional/erosional nature of the beach, this study area was not anticipated to be a significant source of constituents of concern, even considering its interesting history of use. The

three phases of investigation performed at the study area have generally confirmed that substantial levels of constituents are not present at the study area. Soil borings installed at the Beach Area indicate that the beach sediments (i.e., sand and gravel resulting from recent alluvial processes) extend to a mean depth of approximately 7.5 feet below ground surface (ft-bgs). These beach sediments overlie the native clay-rich till.

Sediment analytical data indicate that arsenic, chromium, and lead were generally detected at relatively low concentrations, albeit above their respective detected concentrations in the background beach sediment sample. Benzo(a)pyrene and total carcinogenic PAHs were generally detected in Beach Area sediment samples at concentrations lower than the MDLs of the background sample. A few pesticides/herbicides were detected in the Janes Ravine outfall samples. The origin of the pesticides/herbicides is unknown, but may be related to previous and ongoing golf course activities farther up the ravine. In addition, 1,3-dinitrobenzene was detected in one lake sediment sample at a low concentration (just above the MDL). It is possible this explosive-related constituent is related to the burning of off-specification munitions and/or the Beach Area's history as an impact area. This is the only detection of an explosive-related constituent in the Beach Area sediment samples.

Total arsenic, total chromium, PAHs, and pesticides/herbicides were not detected above MDLs in any of the four surface water samples collected from the ravine outfalls to Lake Michigan. Total lead was detected in two surface water samples at relatively low concentrations (less than three times the MDL).

L. variegatus was cultured in two beach sediment samples collected from the outfalls to Lake Michigan of Janes and Hutchinson Ravines. Arsenic, chromium, and lead were detected in the *L. variegatus* tissue from the beach sediment samples at concentrations similar to those in the reference sediment tissue sample and at higher concentrations than in the control sediment tissue sample. Most pesticides/herbicides were detected in the beach sediment tissue samples at similar concentrations to those in the reference sediment tissue sample and at higher concentrations than in the control sediment tissue sample. However, p,p'-DDD in the beach sediment tissue samples was detected at higher concentrations than in the reference and control sediment tissue samples.

Samples of the groundwater were collected from monitoring wells at the Beach Area as worst case (undiluted) samples of the Lake Michigan surface water. Fathead minnows *(P. promelas)* were exposed to the groundwater samples and no adverse effects were observed.

6.0 Summary of Site Risks

In order to characterize the potential current and future threats to human health and the environment that may be posed by the constituents of concern at the ravines and Beach Area study areas of the Surplus OU, a BRA was conducted as part of the RI in accordance with USEPA's Risk Assessment Guidance for Superfund (RAGS): Volumes I - Human Health Evaluation Manual (Part A) and Volume II - Environmental Evaluation Manual (USEPA, 1989).

The BRA evaluated the ravines and Beach Area study areas to determine if constituents found in the surface soil, sediment, and surface water during the RI were present in concentrations that represented a potential for current or future health risks to humans or adverse effects on the environment. Because of the physical site characteristics (a narrow beach and steep-sloped ravines), and because the Army will transfer the Ravines and Beach Area Study Areas to the Lake County Forest Preserve District, the BRA took into consideration the current and future reuses of the ravines and Beach Area study areas as open space. The potential health effects may differ depending on how the land of the ravines and Beach Area study areas will be used currently and in the future. Therefore, the BRA included exposure by current and future recreational users at the ravines and Beach Area study areas.

6.1 Human Health Risk Summary

Constituents of potential concern (COPCs) were identified in order to streamline the risk assessment process by identifying constituents that contribute most significantly to overall potential risk. COPCs were evaluated separately for surface soil, sediment, and surface water. Metals, PAHs, and pesticides were identified as COPCs based on methods presented in RAGS and discussed in detail in the RI/BRA for the ravines and Beach Area study areas (QST, 1998a). The COPCs identified for the ravines and Beach Area study areas are presented in Table 6-1.

The BRA interpreted the RI data in order to (1) identify those exposure pathways that may pose a current or future potential risk to human health and the environment and (2) determine the degree of this potential risk. The BRA evaluated each human exposure pathway for completeness and determined that there were two significant exposure scenarios. The significant human exposure scenarios for the ravines and Beach Area study areas addressed in the BRA were current and future recreational use.

Under current land use conditions (recreational), the risk and hazards due to the constituents found at the ravines and Beach Area study areas via all exposure pathways are well within the target carcinogenic risk range and below the non-carcinogenic hazard index (HI) target value of 1 (Table 6-2). Under future land use conditions (recreational), the highest potential carcinogenic risk due to the constituents found at the ravines and Beach Area study areas via all exposure pathways is 3E-05 (i.e., three additional chances in 100,000 that an individual may develop cancer over a lifetime

of exposure) (see Table 6-2). This is well within the target risk range. The risk in the ravines is primarily associated with PAHs and pesticides in the sediments. The PAH concentrations detected at the ravines exceeded the maximum background concentrations by as much as 5-fold. The highest pesticide concentrations detected at the ravines exceeded the maximum background concentration by nearly two orders of magnitude. The potential risks for the Beach Area are primarily associated with exposure to arsenic, which was detected at concentrations exceeding the concentration detected in the background beach sample by a factor of 6.

6.2 Ecological Risk Summary

An ecological risk assessment was conducted at the ravines and Beach Area study areas as part of the BRA. The ravines and Beach Area study areas are generally open space with no paved or filled areas. The ecological risk assessment considered potential risks to both aquatic and terrestrial species, including aquatic invertebrates (animals without backbones), amphibians (e.g., toads), raccoons, cats (as a surrogate for house pets), shrews, woodchucks, and shorebirds (e.g., snipe). The ecological risk assessment compared the concentrations of the constituents at the ravines and Beach Area study areas with environmental health based levels. Environmental studies were also performed on freshwater worms (*L. variegatus*) and amphipods (*H. azteca*) using sediments from the ravines and Beach Area study areas. While groundwater is not considered a viable pathway for the human health risk assessment, the discharge of groundwater into Lake Michigan was of concern for the ecological risk assessment. The groundwater at the beach discharges directly to the lake and, thus, may affect Lake Michigan.

The ecological risk assessment equivalent of the human health HI is the ecotoxicity quotient (EQ). As with the HI, an EQ greater than one (EQ > 1) indicates a level of risk that is potentially unacceptable. None of the COPC concentrations in the surface water and sediment samples from Janes or Hutchinson Ravines resulted in an EQ > 1 for any of the species or COPCs evaluated (Table 6-3). For the Beach Area, two COPCs resulted in an EQ > 1 for sediment. The inorganic constituents aluminum and arsenic had EQs > 1 for raccoons incidentally ingesting sediment. However, consideration of the fact that the home range of a typical raccoon would not be limited to just the Beach Area reduces the potential for exposure to the point where no adverse effects are anticipated.

The evaluation of the potential for COPCs to concentrate in animal food chains was based upon snipes eating *L. variegatus* exposed to surface water at the Beach Area. This evaluation resulted in an EQ > 1 for total chromium and manganese. As with the raccoons, consideration of the home range of the snipe reduces the potential for exposure to the point where no adverse effects are anticipated. Additionally, the concentrations of manganese in the Beach Area *L. variegatus* samples were not different than the concentrations of manganese in the reference *L. variegatus* samples.

EQs for two Lake Michigan sediment constituents (aluminum and 1,3-dinitrobenzene) indicate that adverse effects on benthic invertebrates may occur. However, consideration of additional sediment data collected during the DoD OU RI indicate that the detection of 1,3-dinitrobenzene may be an anomaly and that aluminum concentrations associated with Surplus OU Lake Michigan sediment samples are less than those observed elsewhere in the lake. In summary, no adverse effects to environmental receptors are expected from either Janes Ravine, Hutchinson Ravine, or the Beach Area.

Table 6-1. COPCs for the Ravines and Beach Area Study Areas

Study Area/ Medium	Human Health COPCs	EcoCOPCs	
Janes Ravine			
Sediment	Benzo(a)anthracene	Chlordane, total	Methoxychlor
	Benzo(a)pyrene	DDD, p,p'-	Methylnaphthalene, 2-
	Benzo(b)fluoranthene	DDE, p,p'-	Silver
	Benzo(k)fluoranthene	DDT, p,p'-	
	Chlordane	Hexachlorocyclohexane,	
	Chrysene	gamma- (Lindane)	
	DDD, p,p'-		
	DDT, p,p'-		
	Dibenzo(a,h)anthracene		
	Indeno(1,2,3-cd)pyrene		
Surface Water	Manganese	DDD, p,p'-	Manganese
		DDT, p,p'-	Sulfate
Hutchinson Ravine			
Sediment	Benzo(a)anthracene	2,4,5-T	DDD, p,p'-
	Benzo(a)pyrene	Acenaphthene	DDE, p,p'-
	Benzo(b)fluoranthene	Acenaphthylene	DDT, p,p'-
	Benzo(k)fluoranthene	Aldrin	Dibenzo(a,h)anthracene
	Chlordane	Anthracene	Endrin
	Chrysene	Benzo(a)anthracene	Fluoranthene
	DDD, p,p'-	Benzo(a)pyrene	Fluorene
	Dibenzo(a,h)anthracene	Benzo(b)fluoranthene	Hexachlorocyclohexane,
	Indeno(1,2,3-cd)pyrene	Benzo(g,h,i)perylene	gamma- (Lindane)
		Benzo(k)fluoranthene	Indeno(1,2,3-cd)pyrene
		Cadmium	Mercury
		Carbazole	Methylnaphthalene, 2-
		Chlordane, alpha-	Naphthalene
		Chlordane, gamma-	Phenanthrene
		Chlordane, total	Pyrene
		Chrysene	Silver
		Cyanide, total	
Surface Water	Benzo(a)pyrene	Anthracene	Decachlorobiphenyl
	Benzo(k)fluoranthene	Benzo(a)pyrene	Manganese
	Bis(2-ethylhexyl)phthalate	Cyanide	Pyrene
	Chloromethane	DDD, p,p'-	Sulfate
	Manganese	DDE, p,p'-	Zinc
	Sulfate	DDT, p,p'-	

Table 6-1. COPCs for the Ravines and Beach Area Study Areas

Study Area/ Medium	Human Health COPCs	EcoCOPCs	
Beach Area			
Sediment	Arsenic	Aluminum	Hexachlorocyclohexane,
	Beryllium	Antimony	gamma- (Lindane)
	Manganese	Arsenic	Manganese
		Chlordane, total	Nickel
		DDD, p,p'-	Zinc
		DDE, p,p'-	
		DDT, p,p'-	
Surface Water	Chloroform	Barium	Sulfate
	Manganese	Manganese	
	Sulfate		
Lake Michigan Sediment			Aluminum
			Dinitrobenzene, 1-3-
Groundwater		Amino-2,6-DNT, 4-	DDT, p,p'-
		Barium	Endosulfan sulfate
		Benzo(a)anthracene	Indeno(1,2,3-cd)pyrene
		Benzo(a)pyrene	Lead
		Benzo(g,h,i)perylene	Manganese
		Benzo(k)fluoranthene	Mercury
		Cobalt	Methylnaphthalene, 2-
		Copper	Pyrene
		DDD, p,p'-	Vanadium
			Zinc

COPC = constituent of potential concern.

Source: QST, 1998.

Table 6-2. Summary of Potential Human Health Risks

Exposure Scenario	Total Noncarcinogenic Hazard Index		Total Carcinogenic Risk†	
Janes Ravine	RAE	RME	RAE	RME
Current Recreational	6E-03	3E-02	4E-07	2E-06
Future Recreational				
Adult	1E-02	6E-02	1E-06	6E-06
Child	4E-02	2E-01	†	
Hutchinson Ravine				
Current Recreational	4E-03	2E-02	4E-07	2E-06
Future Recreational				
Adult	8E-03	4E-02	5E-06	3E-05
Child	2E-02	1E-01	†	
Beach Area				
Future Recreational				
Adult	6E-03	3E-02	1E-06	5E-06
Child	3E-02	1E-01	†	

RAE = reasonable average exposure.
RME = reasonable maximum exposure.

† Lifetime cancer risk estimate. Childhood cancer risks are included in values presented for the adult.

Source: QST, 1998.

Table 6-3. Summary of Potential Risks to Ecological Receptors

Exposure Medium	Receptor Type	Number of Times EQ>1	EcoCOPCs with EQ>1	Significance
Janes Ravine				
Sediment	Raccoon	0/8		
Sediment Bioassays	*Lumbriculus* and *Hyalella*	NA		Results indicate sediments not chronically toxic to benthic invertebrates.
Surface Water	Shrew	0/3		
Surface Water	Feral Cat	0/3		
Surface Water	Woodchuck	0/3		
Surface Water	Raccoon	0/3		
Hutchinson Ravine				
Sediment	Raccoon	0/33		
Sediment Bioassays	*Lumbriculus* and *Hyalella*	NA		Results indicate sediments not chronically toxic to benthic invertebrates.
Surface Water	Shrew	0/10		
Surface Water	Feral Cat	0/10		
Surface Water	Woodchuck	0/10		
Surface Water	Raccoon	0/10		
Surface Water	Amphibians	0/3		
Surface Water	Aq. Invertebrates	0/10		
Lumbriculus	Raccoons	0/11		
Beach Area				
Sediment	Raccoon	2/11	Aluminum Arsenic	Potential for adverse effects; however, consideration of the animals home range significantly reduces the potential for exposure. Therefore, no adverse effects are anticipated.
Sediment	Snipes	0/11		
Sediment Bioassays	*Lumbriculus*	NA		Results indicate sediments not chronically toxic to benthic invertebrates.
Surface Water	Shrew	0/2		
Surface Water	Feral Cat	0/2		
Surface Water	Woodchuck	0/2		

Table 6-3. Summary of Potential Risks to Ecological Receptors

Exposure Medium	Receptor Type	Number of Times EQ > 1	EcoCOPCs with EQ > 1	Significance
Beach Area (cont.)				
Surface Water	Raccoon	0/2		
Lumbriculus	Snipes	2/11	Chromium, total	Some potential for adverse effects; however, consideration of the home range should reduce the potential for exposure and any adverse effects. Additionally, consideration of background concentrations of manganese in prey do not indicate adverse effects.
			Manganese	
Surface Water	Aquatic Invertebrates	0/3		
Lumbriculus	Raccoons	0/11		
Lake Michigan				
Surface Water Bioassays	Fathead Minnows		NA	Results indicate groundwater not acutely toxic to fish species.
Sediment	Aquatic invertebrates	2/2	Aluminum	EQs indicate that adverse effects on benthic invertebrates may occur. However, consideration of additional sediment data indicate that the detection of 1,3-dinitrobenzene may be an anomaly and that aluminum concentrations are less than those observed elsewhere in the lake.
		1/2	1,2-Dinitrobenzene	

NA = not applicable.

Source: QST, 1998.

7.0 Description of the No Response Action Determination

The results of the BRA indicate that, for the current and future use scenarios of open space, the ravines and Beach Area study areas of the Surplus OU do not pose an unacceptable risk to human health and the environment. Physical site characteristics (a narrow beach and steep-sloped ravines) would likely preclude residential development and use of these study areas. Furthermore, the Lake County Forest Preserve District is planning on using the ravines and Beach Area study areas as open space. Therefore, No Response Action is necessary for the ravines and Beach Area study areas of the Surplus OU.

8.0 Documentation of Significant Changes

The Proposed Remedial Action Plan for the ravines and Beach Area study areas of the Surplus OU was released for public comment on June 10, 1998. The Proposed Remedial Action Plan identified No Response Action as the Preferred Alternative. The Army did not receive any written or verbal comments during the public comment period. Therefore, it is determined that no significant changes to the decision that No Response Action is necessary, as originally identified in the Proposed Remedial Action Plan, are necessary.

9.0 References

Argonne National Laboratory. 1989. "Enhanced Preliminary Assessment Report"; prepared for U.S. Army Toxic and Hazardous Materials Agency; Aberdeen Proving Ground, Maryland.

Gross, D., R.L. Muhly, H.K. Woods, R.L. Yon, D.J. Wenz, J.D. Wienand, and N.P. Leibel, 1982. "Installation Assessment of Fort Sheridan and Joliet Training Area, Illinois"; prepared for U.S. Army Toxic and Hazardous Materials Agency; Aberdeen Proving Ground, Maryland.

Melichar, Paul. 1995. Fort Sheridan: Historical Analysis. The Concepts Group.

QST Environmental. 1998a. Final Remedial Investigation/Baseline Risk Assessment for the Ravines and Beach Area Study Areas of the Surplus Operable Unit, Fort Sheridan, Illinois. Prepared for USAEC, Aberdeen Proving Ground, Maryland.

QST Environmental. 1998b. Final Remedial Action Plan for the Ravines and Beach Area Study Areas of the Surplus Operable Unit, Fort Sheridan, Illinois. Prepared for USAEC, Aberdeen Proving Ground, Maryland.

USEPA. 1991. Guide to Developing Superfund No Action, Interim Action, and Contingency Remedy RODs. Office of Solid Waste and Emergency Response. Publication: 9355.3-02FS-3.

USEPA. 1989. Risk Assessment Guidelines for Superfund: Volume I. Human Health Evaluation Manual, Part A, Interim Final. Office of Solid Waste and Emergency Response. OSWER Directive 9285.7-011.

USEPA. 1989. Risk Assessment Guidance for Superfund: Volume II. Environmental Evaluation Manual, Interim Final. Office of Emergency and Remedial Response. EPA 540/1-89/001.

Appendix A

Administrative Record Index

Fort Sheridan
Draft Administrative Record
10/8/98

DOC NO	AR*	DOCUMENT TITLE	AUTHOR	DATE	RECIPIENT
1.001.1	1	Sanitary Landfill Closure, Fort Sheridan, Illinois	Greeley and Hansen	9/1/78	IL EPA
1.002	1	Final Design Analysis Sanitary Landfill Closure	Greeley and Hansen	2/1/80	US Army Corps of Engineers, Omaha
1.003	1	Feasibility Study to Determine the Use of On-site Soils for Landfill Cover Materials	Soil Testing Services, Inc.	6/2/80	Benson, Doug - Facilities Engineering, Fort Sheridan, IL
1.004	1	Letter-re: Lab Results of Landfill Samples near Wells Ravine Landfills 6 & 7	Young, R.A. - Young Environmental Services	4/11/81	Ketchik, J., Facilities Engineering
1.005	1,3,4,5	Installation Assessment of Fort Sheridan and Joilet Training Area, Illinois	Chemical Systems Laboratory	5/1/82	USATHAMA
1.006	1,3, 5	Historical Overview of the Nike Missile System	Environmental Science and Engineering	12/1/84	USATHAMA
1.007	1,3,4,5	Update of the Initial Installation Assessment of Fort Sheridan, Illinois	Environmental Science and Engineering	8/1/87	USATHAMA
1.009	1,3,4,5	Enhanced Preliminary Assessment Report: Fort Sheridan,	Argonne National Laboratories	10/1/89	USATHAMA
1.009.1.1	1,3,4,5	Installation Assessment Army Base Closure Program, Fort Sheridan, Lake County, Illinois	The Bionetics Corp.	4/1/90	US EPA
1.009.2	1	MOU Between Department of Army and Navy	Secretary of Army and Sec. of Navy	8/8/91	
1.009.3	1,3,4,5	Report of Findings for PCB Transformer Sampling Conducted at Fort Sheridan, Illinois	Environmental Science and Engineering	6/11/92	USATHAMA
1.011.2	2,3,5	Fort Sheridan Unexploded Ordnance Survey (50 Acre Parcel) Final Work Plan	IT Corporation	10/14/93	US AEC
1.011.5	3,4,5	Community Environmental Response Facilitation Act (CERFA) Report	The Earth Technology Corporation	4/1/94	US AEC
1.012.1	2,3,5	Fort Sheridan Unexploded Ordnance Survey, Final Technical Report	IT Corporation	7/1/94	US AEC
1.012.2	1	Letter-re: IEPA Requesting Dept. of Army to Sample Metal Water Tower (south end)	Nussbaum, S.D. - IL EPA	11/7/94	Reilly, C. - Fort Sheridan BEC
1.013	1	Letter-re: Concept Design Report for Closure Design of Landfills 6 & 7	Schafer, G.M. - US EPA	12/8/94	Reilly, C. - Fort Sheridan BEC
1.014	1,3,4,5	Industrial Radiation Historical Data Review, Survey No. 27-83-2859A-95, Fort Sheridan, Illinois, 15 January-30 March 1995	USACHPPM	1/15/95	FORSCOM
1.015.5	1	Memorandum-re: "Probable UXO" Area, April 1994 CERFA Report	Reilly, C. - Fort Sheridan BEC	4/20/95	US AEC
1.016	1	Exploratory Trenching Report Landfills 6 and 7 Fort Sheridan, Illinois	Environmental Science and Engineering	5/1/95	US Army Corps of Engineers, Louisville
1.017	1	Report of Sanitary Landfill Closure Site Inspection	Greeley and Hansen	6/19/80	Fort Sheridan
1.018	1	Risk Characterization of Landfill 7 Air Emissions (Volatiles)	US EPA	6/19/95	Reilly, C., - Fort Sheridan BEC
1.019	1	Letter-re: Proposed Sampling Plan for Surface Soils at Fort Sheridan Landfill 7	Ross, Jenny - USN, EFA Midwest	7/6/95	Reilly, C., - Fort Sheridan BEC
1.020	1	Letter-re: Landfill 7 Black Pipe (LF&BP) Sample Results	Lake, Paul T., - IEPA	9/26/95	Reilly, C., - Fort Sheridan BEC
2.001	2	Letter-re: Time Critical Ordnance and Explosive Waste (OEW) Removal Action at Fort Sheridan, IL	Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy	8/2/94	Schafer, G.M. - US EPA
2.002	2	Letter-re: Time Critical Ordnance and Explosive Waste Removal Action at Fort Sheridan, IL	Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy	8/2/94	Nussbaum, S.D. - IL EPA
2.003	2	Explosive Safety Submission for Ordnance Removal and Land Disposal of 38 Acre Parcel at Fort Sheridan, IL	US Army Corps of Engineers, St. Louis District	8/15/'94	US Army Corps of Engineers, Huntsville Division

* AR LEGEND:
1 = Department of Defense Operable Unit (OU)
2 = Unexploded Ordnance Time Critical Removal Action (Final AR)
3 = Surplus OU
4=Landfills 3 4 OU (Final AR)
5=Ravines and Beach Study Areas (Final AR)

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DOC NO	AR*	DOCUMENT TITLE	AUTHOR	DATE	RECIPIENT
2.004	2	Letter-re: Proposed Time Critical Removal Action for Ordnance & Explosive Waste at Fort Sheridan, IL	Nussbaum, S.D. - IL EPA	8/17/94	Balliett, A.L.-Chief, Environmental Management Division, Fort McCoy
2.005	2	Letter-re: Proposed Time-Critical Removal Action for Ordnance & Explosive Waste at Fort Sheridan, IL	Nussbaum, S.D. - IL EPA	8/17/94	Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy
2.006	2	Letter-re: Draining of Pond to facilitate Time Critical Removal Action for OEW Survey	Nussbaum, S.D. - IL EPA	9/07/94	Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy
2.007	2	Letter-re: Proposed Time-Critical Removal Action for Ordnance & Explosive Waste	Nussbaum, S.D. - IL EPA	9/26/94	Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy
2.008	2	Proposed Time-Critical Removal Action for Ordnance & Explosive Waste	Nussbaum, S.D. - IL EPA	9/30/94	Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy
2.009	2	Letter-re: Proposed Time-Critical Removal Action for Ordance and Explosive Waste	Schafer, Gary M. - US EPA	10/4/94	Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy
2.010	2	Letter-re: Postponement of Time Critical Ordnance & Explosive Waste	Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy	12/8/94	Schafer, G.M. - US EPA
2.011	2	Letter-re: Postponement of Time Critical Ordnance and Explosive Waste (OEW) Removal from Fort Sheridan	Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy	12/8/94	Nussbaum, S.D. - IL EPA
2.013	2	Letter-re: Army's Position on Unexploded Ordnance (UXO)	Reilly, C. - Fort Sheridan BEC	7/5/95	Lake, Paul T. - IL EPA
2.014	2	Letter-re: Army Position on Unexploded Ordnance (UXO)	Lake, Paul T. - IL EPA	9/14/95	Reilly, C. - Fort Sheridan BEC
2.015	2, 5	Action Memorandum-re: Time Critical Ordnance and Explosives Removal, Former Firing Range, Fort Sheridan, IL	Harold K. Miller, Jr., Colonel, U.S. Army, Commanding Officer	3/12/96	
2.016	2,5	Ordnance and Explosive (OE) Site Operations - Addendum 001 to Fort Sheridan Work Plan	HFA (Human Factors Applications, Inc.)	3/18/96	US Army Corps of Engineers, Huntsville Division
2.016.5	3	On-Scene Coordinator Report. Time Critical Removal Action at Buildings 43 and 368, Fort Sheridan, Illinois	Diversified Technologies Corporation	10/8/96	Reilly, C. - Fort Sheridan BEC
2.017	2,5	Final Removal Report, Volume I & II, Ordnance & Explosives (OE) Interim Removal and Sampling Action , Fort Sheridan, Illinois (See separate report on shelf Volumes I & II)	Human Factors Applications, Inc. (HFA)	3/27/97	US Army Corps of Engineers, Huntsville Division
2.017.5	1	Fort Sheridan Landfills 6 & 7 Leachate Treatment Facility Design Analysis Report, Interim Remedial Action (includes	Environmental Science & Engineering	June, 199	U.S. Army Corps of Engineers, Louisville District
2.107.6	1	Landfills 6 & 7 Phase 1 Interim Remedial Action Leachate Treatment Facility Specifications	Environmental Science & Engineering	June, 199	U.S. Army Corps of Engineers, Louisville District
2.018	3	Engineering Evaluation/Cost Analysis, Coal Storage Area 3, B42, B43, B77 (see separate report on shelf)	LAW Engineering and Environmental Services, Inc.	Nov. 1997	US Army Corps of Engineers, Louisville District
2.018.1	1	Landfills 6 & 7 Phase I Interim Remedial Action Corrected Final Specifications	Environmental Science & Engineering	Feb, 1998	U.S. Army Corps of Engineers, Louisville District
2.018.2	1	Landfills 6 & 7 Phase 1 Interim Remedial Action Design Analysis Report, Corrected Final (includes drawings)	Environmental Science & Engineering	Feb, 1998	U.S. Army Corps of Engineers, Louisville District
2.019	3	Removal Action Work Plan, Fort Sheridan, IL. Coal Storage Area 3, B42, B43, B77 (see spearate report on shelf)	IT Corporation	April, 199	U.S. Army Corps of Engineers, Louisville District
3.002.2	1,3,4,5	Letter-re: Review of Technical Plan, Sampling and Analysis Plan, Quality Assurance Project Plan, and Health and Safety Plan for Fort Sheridan	Franz, W.D. - US EPA	2/7/90	Jackson, J. - USATHAMA
3.003	1,3,4,5	Letter-re: Comments on the Draft Technical Plan and the Draft Sampling Plan	Franz, W.D. - US EPA	4/4/90	Fendick, R., USATHAMA

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DOC NO	AR*	DOCUMENT TITLE	AUTHOR	DATE	RECIPIENT
3.005	1,3,4,5	Letter-re: Comments regarding the Analytical Methods in Technical Plan	Franz, W.D. - US EPA	4/13/90	Fendick, R., USATHAMA
3.007	1,3,4,5	Letter-re: Response to Comments	Franz, W.D. - US EPA	5/7/90	Fendick, R., USATHAMA
3.010	1,3,4,5	Final Health and Safety Plan, Fort Sheridan, IL	E.C. Jordan Co.	7/1/90	USATHAMA
3.011	1,3,4,5	Final Quality Assurance Program Plan, Fort Sheridan, IL	E.C. Jordan Co.	7/1/90	USATHAMA
3.013	1,3,4,5	Final Sampling and Analysis Plan, Fort Sheridan, IL	E.C. Jordan Co.	7/1/90	USATHAMA
3.014	1,3,5	Final Technical Plan, Fort Sheridan, IL	E.C. Jordan Co.	7/1/90	USATHAMA
3.015	1,3,4,5	Letter-re: Final Technical Plans	Torrisi, Salvatore P., Chief, USATHAMA	9/14/90	Denning, T. - IL EPA
3.015.1	1,3,4,5	Amendment to Final Technical and Sampling and Analysis Plan for Storage Area Investigations at Fort Sheridan, IL	Environmental Science and Engineering, Inc.	9/18/90	USATHAMA
3.015.5	1,3,4,5	Letter-re: Request from IL EPA for copies of the following: Sampling and Analysis Plan, Health and Safety Plan, Quality Assurance Program Plan, and Technical Plan for Fort Sheridan	Torrisi, Salvatore P., Chief, USATHAMA	10/25/90	Carter, Julia, IL EPA
3.016	1,3,4,5	Amendment to Final Technical and Sampling and Analysis Plans for Landfill Investigations, Fort Sheridan, IL	Environmental Science and Engineering, Inc.	11/2/90	USATHAMA
3.020	1,3,4,5	Letter-re: Review of Amendments to Final Technical and Sampling Analysis Plans for Fort Sheridan, IL	Carter, Julia E. - IL EPA	8/1/91	Fendick, R., USATHAMA
3.021.5	1,3,4,5	Addendum to Fort Sheridan Site Safety Plan-Part IIB, Field Employees, Unknown Chemical Exposure Prevention (UCEP)	Environmental Science and Engineering, Inc.	9/12/91	Fendick, R., USATHAMA
3.022	1,3,4,5	Letter-re: Responses to Comments on RI/FS Work Plans	Torrisi, S.P. - USASTHAMA	10/18/91	Carter, J. - IL EPA
3.024	1,3,4,5	Addendum to Final Quality Assurance Program Plan, Fort Sheridan Remedial Investigation/Feasibility Study, Fort Sheridan, IL	Environmental Science and Engineering, Inc.	10/23/91	USATHAMA
3.025	1,3,4,5	Addendum to Final Sampling and Analysis Plan Storage Area Investigations for Fort Sheridan Remedial Investigation/Feasibility Study, Fort Sheridan, IL	Environmental Science and Engineering, Inc.	10/23/91	USATHAMA
3.026	1,3,4,5	Letter-re: Sampling and Analysis Plan (SAP), QAPP, Work Plan, Health and Safety Plan and Community Relations Plan	Carter, J.E. - IL EPA	11/14/91	Fendick, R. - USATHAMA
3.027.5	1,3,4,5	Letter-re: Fort Sheridan Base Closure	Davis, S.K. - IL EPA	4/2/92	Torrisi, S. - USATHAMA
3.027.6	1,3,4,5	Letter-re: Responses to the IEPA Comments to the Fort Sheridan Remedial Investigation/Feasibility Study (RI/FS) Work Plans	US AEC	4/6/92	Carter, J., IL EPA
3.028	1,3,4,5	Draft Final Remedial Investigation (RI)/Risk Assessment (RA) Report Remedial Investigation/Feasibility Study Fort Sheridan IL (3 Volumes)	Environmental Science and Engineering, Inc.	6/1/92	USATHAMA
3.030	1,3,4,5	Letter-re: Comments on Draft Remedial Investigation/Risk Assessment	Torrisi, S.P. - USATHAMA	6/17/92	Choi, S.S., US EPA
3.031	1,3,4,5	Letter-re: Review and Comments of the Draft Final Remedial Investigation (RI) Report, including Risk Assessment (RA)	Carter, J.E. - IL EPA	7/27/92	Fendick, R., USATHAMA
3.033	1,3,4,5	Letter-re: Concerns and recommendations Based on the Draft Final Remedial Investigation(RI) Report and Risk Assessment/Feasibility Study (RA/FS)	Choi, S. - US EPA	10/6/92	Fendick, R., USATHAMA
3.035	1,3,4,5	Letter-re: Comments on Draft Remedial Investigation/Risk Assessment	Wooten, COL. R.G. - USA EC	10/7/92	Choi, S.S., US EPA

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3.040	1,3,4,5	Responses to Regulatory Agency Comments Regarding Remedial Investigation/Risk Assessment Report	Wooten, COL. R.G. - USA EC	2/9/93	Nussbaum, S.D. - IL EPA
3.041.1	1,3,4,5	Letter-re: IL EPA Comments to Overall Quality Assurance Project Plan	Nussbaum, S.D. - IL EPA	8/15/93	Fendick, R. - US AEC
3.046	1,3,4,5	Letter-re: Review of Draft Final Overall Technical Plan, Sampling and Analysis Plan, Quality Assurance Project Plan, Remedial Investigation/Feasibility Study for Fort Sheridan, IL,	Ripley, L.J. - US EPA	11/4/93	Stokke, S., HQ Fort McCoy
3.049	1	Lake County Health Department Closed Landfill Inspection Report	Pergams, R.; D. DeBennette - Lake County Health Department	5/11/94	IL EPA
3.050.9.1	1	SSHASP-Soil, Groundwater, and Landfill Investigations at LF 6&7	Environmental Science and Engineering	7/1/94	USACE, Louisville District
3.053	1,3,4,5	Shallow Groundwater Resource Classification, Fort Sheridan, IL	Environmental Science and Engineering	10/25/94	USAEC
3.053.1.1	1	SSHASP-Landfill Leachate Sampling at Landfill 7	Environmental Science and Engineering	11/1/94	USACE-Louisville District
3.054	1,3,4,5	IL EPA comments Regarding Groundwater Classification	Nussbaum, S.D. - IL EPA	12/22/94	Reilly, C. - Fort Sheridan BEC
3.055	1,3,4,5	Letter-re: Questions Regarding IL EPA's Groundwater Classification Review Comments	Reilly, C. - Fort Sheridan BEC	1/26/95	Nussbaum, S.D. - IL EPA
3.056	1,3,4,5	Letter-re: Questions Regarding IL EPA Groundwater Classification Document Review Comments	Reilly, C. - Fort Sheridan BEC	2/27/95	Nussbaum, S.D. - IL EPA
3.057.1.1	1	Memorandum for Record: Landfill 6 & 7 Closure, Fort Sheridan	Reilly, C. - Fort Sheridan BEC	3/6/95	
3.057.2.2	1,3,4,5	Final Overall Quality Assurance Project Plan (QAPP) Remedial Investigation/Feasibility Study Fort Sheridan, Illinois (See separate report on shelf - 2 Volumes)	Environmental Science and Engineering	3/15/95	US Army Environmental Center
3.058	1	Storm Sewer Outfall Testing at Landfill #7, Fort Sheridan, IL	Ecology Services, Inc.	4/5/95	US Army Corps of Engineers
3.064	1	Well Abandonment Report Monitoring Wells LF7MW6S and LF7MW6D, Fort Sheridan, IL	Environmental Science and Engineering	5/10/95	US Army Corps of Engineers, Louisville District
3.068	3,5	Letter-re: Golf Course Sampling and Analysis Plan	Environmental Science and Engineering	6/5/95	Lechner, Dr. Charles-USAEC
3.068.3	1,3,4,5	Final Sampling and Analysis Plan for Background Sampling	Environmental Science and Engineering	5/26/95	Lechner, Dr. Charles-USAEC
3.069	1	Fort Sheridan Landfill 6 and 7 Project Information Report Submitted to North Shore Sanitary District	Environmental Science and Engineering	6/7/95	North Shore Sanitary District
3.071	1,3,4,5	Letter-re: Responses to Comments Regarding the SOP for Determination of ONOPs Using GC/NPD	McKinley, D.K. - Environmental Science and Engineering	6/14/95	Thompson, W.O. - US EPA
3.072	1,3,4,5	Groundwater Classification Document, Fort Sheridan, IL (See separate report on shelf - Volumes 1 & 2)	Environmental Science and Engineering	Feb. 1996	US AEC
3.073.1	1,3,4,5	Industrial Radiation Survey No. 27-MH-2859-R1-96 Facility Close-Out and Termination Survey, Fort Sheridan, Illinois. 17 August 95 - 30 May 96.	USACHPPM	Aug. 1996	Reilly, C. - Fort Sheridan BEC
3.073.2	3,4,5	Final Sampling and Analysis Plan for the Surplus Operable Unit-Fort Sheridan (See separate report on shelf)	Environmental Science and Engineering		Lechner, Dr. Chuck-USAEC
3.074	3,5	Sewer Cleaning and Testing Report - Eleven Building Locations at Fort Sheridan, Illinois	Ecology Services, Inc.	2/15/96	Reilly, C. - Fort Sheridan BEC
3.075	1,3,4,5	Radiological Assessment & Survey at Fort Sheridan	IL Dept. of Nuclear Safety	3/11/96	Lake, Paul T. - IL EPA
3.076	1,3,4,5	Final Data Validation Report - 10 Volume set	ECG, Inc.	4/12/96	
3.076.1	1,3,4,5	Memorandum-re: Final Data Usability Summary and Resampling Proposal for Fort Sheridan	Wojciechowski, LTC Paul E.	4/12/96	Reilly, C. - Fort Sheridan BEC
3.076.5	3,4,5	Letter-re: USEPA review and comments on: Data Validation Support, ECG, Inc. Surplus Operable Unit, Fort Sheridan,	Thompson, W. Owen - US EPA	9/23/96	Reilly, C. - Fort Sheridan BEC

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3.077	3,4,5	Final Phase III Sampling and Analysis Plan for the Surplus Operable Unit-Fort Sheridan (See separate report on shelf)	Environmental Science and Engineering	10/4/96	Lechner, Dr. Chuck-USAEC
3.077.1	3,4, 5	Letter-re: Draft Phase I Data Usability Evaluation, Fort Sheridan, Illinois	Thompson, W. Owen - US EPA	10/28/96	Reilly, C. - Fort Sheridan BEC
3.077.2	3,4, 5	Letter-re: Draft Phase I Data Usability Evaluation, Fort Sheridan, Illinois	Environmental Science and Engineering	11/13/96	Thompson, W. Owen - US EPA
3.077.4	3,4	Final Revised Technical Evaluation Plan Fort Sheridan RI/FS	Environmental Science and Engineering	11/12/96	US AEC
3.077.5	1,3	Industrial Radiation Survey No. 27-MH-2859-R2-97, Nike Missile Facilities Close-Out and Termination Survey, Fort Sheridan, IL, 1 September 1995 - 24 May 1996	USACHPPM	12/2/96	Reilly, C. - Fort Sheridan BEC
3.078	1	Phase II-RI/FS DOD OU - Technical Plan - Volume 1 & 2	Science Applications International Corp.	1/97	Lechner, Dr. Chuck-USAEC
3.079	4	Video: Showing Remedial Investigation Field Work-Landfills 3 & 4 Activities	Environmental Science and Engineering	3/97	Reilly, C. - Fort Sheridan BEC
3.079.1	1,3,4	Letter-re: Industrial Radiation Close-Out and Termination Survey Report, Nike Missle Facilities	Thompson, W. Owen, USEPA	4/30/97	Reilly, C. - Fort Sheridan BEC
3.080	1,2,3,4,5	Final Background Sampling and Data Evaluation Report, Fort Sheridan	Environmental Science and Engineering	5/21/97	US AEC
3.080.1	1,3,5	Chemical Analytical Data (With NFG Qualifiers)Background Sampling Locations, Fort Sheridan	QST Environmental Inc.	1/30/98	US AEC
3.081	1,3,4,5	Final Data Validation Report #1 - 3 Volume set	ECG, Inc.	4/30/97	US AEC
3.082	1,3,4,5	Final Data Validation Report #2 - 3 Volume set	ECG, Inc.	5/19/97	US AEC
3.083	3,4,5	Final Data Validation Report #3 - 3 Volume set	ECG, Inc.	6/6/97	US AEC
3.084	1	Phase II RI/FS DoD OU - Technical Plan Addendum	Science Applications International Corp.	6/97	US AEC
3.084.5	3	Soil Sampling - PCB Analysis at Building 913-transformer pad, and at pole	Day, Paul, DTC	7/1/97	Reilly, C. - Fort Sheridan BEC
3.085	4	Letter-re: evaluation of available information for Landfills 3 & 4 OU	Reilly, C. - Fort Sheridan BEC	7/11/97	Lake, Paul - Illinois EPA & Thompson, Owen-USEPA
3.086	1,3,4	Final Remedial Investigation/Baseline Risk Assessment for Landfills 3 & 4 Operable Unit, 4-Volumes	QST Environmental Inc.	7/18/97	US AEC
3.086.1	4	Chemical Analytical Data (With NFG Qualifiers) Landfills 3 and 4 Operable Unit, Fort Sheridan	QST Environmental Inc.	1/30/98	US AEC
3.086.2	1,3	Chemical Analytical Data (With NFG Qualifiers) Asphaltic Baseline Sampling Locations, Fort Sheridan	QST Environmental Inc.	1/30/98	US AEC
3.087	3,4,5	Final Data Validation Report #4 - 3 Volume set	ECG, Inc.	7/21/97	US AEC
3.088	1,3	Letter-re: Industrial Radiation Close-Out and Termination Survey Report for the Nike Missile Facilities at Fort Sheridan	Lake, Paul T., Illinois EPA	7/31/97	Reilly, C. - Fort Sheridan BEC
3.090	3,4,5	Letter-re: Final Data Validation Report #4, Fort Sheridan Continuing Data Validation Support	Thompson, W. Owen, USEPA	9/8/97	Reilly, C. - Fort Sheridan BEC
3.090.1	3,5	Letter-re: Verification Sampling and Analysis -Surplus OU-Fort Sheridan, Illinois	Manikas, Christopher S., SAIC	9/8/97	Fileccia, Robert - USACE, Louisville District
3.091	3,4,5	Letter-re: Fort Sheridan Continuing Data Validation Support, Final Data Validation Report #2, and Final Data Validation	Thompson, W. Owen, USEPA	9/22/97	Reilly, C. - Fort Sheridan BEC
3.092	3,4,5	Letter-re: Fort Sheridan RI Data Validation Responses to Comments, August 7, 1997	Thompson, W. Owen, USEPA	10/21/97	Reilly, C. - Fort Sheridan BEC

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3.093	3,5	Final Sampling Results and Data Evaluation Report for Miscellaneous Surplus Operable Unit Study Areas, Fort Sheridan, Illinois (3-Volumes)	QST Environmental Inc.	11/7/97	USAEC, Base Closure Division
3.093.1	3	Chemical Analytical Data (With NFG Qualifiers)Miscellaneous Study Areas	QST Environmental Inc.	1/30/98	US AEC
3.093.2	3,5	Chemical Analytical Data (With NFG Qualifiers) Surplus OU	QST Environmental Inc.	1/30/98	US AEC
3.094	3,5	Verification Sampling Results, Surplus Operable Unit, Fort Sheridan, Illinois	Science Applications International Corp.	Nov. 1997	USACE - Louisville District
3.094.1	1,3,5	Letter-re: Final VOC Data Usability, Surplus and DoD Operable Units, Ft. Sheridan	Reilly, C. - Fort Sheridan BEC	12/3/97	Lake, Paul - Illinois EPA & Thompson, Owen-USEPA
3.095	3	Letter-re: Reply to Responses to Comments on the "Draft Final Data Evaluation Report and Technical Memorandum for Miscellaneous Surplus OU Study Areas, Fort Sheridan, Illinois, Fort Sheridan BRAC Cleanup Team, November 7, 1997.	Thompson, W. Owen, USEPA	12/3/97	Reilly, C. - Fort Sheridan BEC
3.096	3	Letter-re: Response to Owen Thompson, USEPA letter dated December 3, 1997	Reilly, C. - Fort Sheridan BEC	12/9/97	Thompson, W. Owen, USEPA
3.097	3	MEMO FOR RECORD: Removal and Replacement of Leaking PCB Transformer PM427	Day, Paul, DTC	12/19/97	Reilly, C. - Fort Sheridan BEC
3.098	3	Final 38-Acre Parcel Fill Area, Sampling and Analysis Plan, Fort Sheridan, Illinois	QST Environmental Inc.	2/16/98	USAEC
3.099	3,5	Final Remedial Investigation/Baseline Risk Assessment for the Ravines and Beach Study Areas of the Surplus Operable Unit, Fort Sheridan, Illinois (3 volumes, see separate report on shelf)	QST Environmental, Inc.	4/13/98	U.S. Army Environmental Center
3.100	3	Final Sampling and Analysis Plan for the Supplemental Investigation at Building 172, Surplus Operable Unit, Fort Sheridan, Illinois	QST Environmental, Inc.	5/1/98	U.S. Army Environmental Center
3.11	3	Final Report of Limited Soil Investigation, Building 172 (see separate report on shelf)	LAW Engineering and Environmental	8/98	U.S. Army Corps of Engineers
4.003.1	1	Predesign Investigation Report Landfill 6 & 7	Environmental Science and Engineering	7/1/94	USACE - Louisville District
4.005	1	Concept Design Evaluation Closure Design Landfills 6 & 7, Fort Sheridan, IL	Environmental Science and Engineering	9/6/94	USACE - Louisville District
4.007.1	1	Concept Design Report, Closure Design, Landfills 6 & 7	Environmental Science and Engineering	10/3/94	USACE - Louisville District
4.009	1	Letter-re: Landfill 6 & 7 Storm Sewer Re-Route, Fort Sheridan	Reilly, C. - Fort Sheridan BEC	3/29/95	
4.010.1	1	Letter-re: Pre-Treatment Requirements for on-site treatment prior to discharge to POTW	Nussbaum, S.D. - IL EPA	3/8/95	Reilly, C., - Fort Sheridan BEC
4.012	1	Stormwater Calculation for Landfills 6 & 7, Fort Sheridan, IL	Environmental Science and Engineering	4/5/95	Fileccia, B. - US Army Corps of Engineers
4.013	1	Letter-re: Fort Sheridan Landfills 6 & 7; Stormwater Modifications	Ingram, W. - Environmental Science and Engineering	4/13/95	Schultz, M. - Navy Public Works Center
4.014.1.1	1	Gas Vent Liquids Sampling Landfill 7	Environmental Science and Engineering	5/1/95	USACE - Louisville District
4.014.1.2	1	Letter-re: Excavation of Landfill 6 & 7	Kuhn, Michael F., Lake County Health Dept.	7/13/95	Hopkins, Bill - Ft. Sheridan
4.015.1	1	Landfill 7 Cover Investigation Report	Environmental Science and Engineering	1/1/96	USACE - Louisville District
4.016	1	Letter-re: Comments New Storm Drain Alignments LF 6 & 7	Schulz, Mark - US Navy EFA	1/4/96	Reilly, C., - Fort Sheridan BEC
4.017	1	Letter-re: Comments on Landfills 6 & 7 Interim Draft Focused Feasibility Study (FS)	Kuhn, Michael F., Lake County Health Dept.	1/19/96	Reilly, C., - Fort Sheridan BEC

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4.018	1	Memorandum-re: Responses to Comments on LF 6 & 7 Draft	Lee, MAJ. Arthur P. - USACHPPM	6/7/96	USACE - Louisville District
4.019	1	Landfills 6 & 7 Interim Action Final Focused Feasibility Study (See separate report on shelf)	Environmental Science and Engineering	7/2/96	USACE - Louisville District
4.020	1	Responses to Comments on LF 6 & 7 Draft Final Focused FS	Environmental Science and Engineering	7/10/96	USACE - Louisville District
5.002	1	Proposed Plan Landfills 6 & 7 Interim Action	US Army, Fort Sheridan, IL -BRAC	8/1/96	
5.003	1	Decision Document (DD) for Interim Source Control Action for Landfills 6 and 7 at Fort Sheridan, Illinois (See separate report on shelf)	Environmental Science and Engineering	4/22/97	USACE - Louisville District
5.003.1	1,3	Final Fort Sheridan Historic District Transfer Parcel Environmental Baseline Survey (EBS), Fort Sheridan Base Realignment and Closlure Surplus Property	Diversified Technologies Corp.	May, 199	Fort Sheridan BRAC Environmental Office
5.003.1.1	1,3	Chemical Analytical Data (With NFG Qualifiers) Fort Sheridan Historic District Transfer Parcel EBS May, 1997, Fort Sheridan	QST Environmental Inc.	1/30/98	US AEC
5.004	4	Final Proposed Remedial Action Plan Landfills 3 & 4 Operable Unit	QST Environmental Inc.	7/22/97	US AEC
5.005	4	Final Decision Document for Landfills 3 & 4 Operable Unit	QST Environmental Inc.	10/22/97	US AEC
5.006	3	Final Technical Memorandum for Miscellaneous Surplus OU Study Areas, Fort Sheridan, Illinois	BRAC Cleanup Team	11/7/97	File
5.007	3	Letter-re: Response to IEPA Comment on Fort Sheridan Historic District and Golf Course Transfer Parcels (November	Fort Sheridan BRAC Office	11/25/97	IL EPA
5.008	3	Action Memorandum Non-Time Critical Removal Action Coal Storage Area 3, Building 42, Building 43, and Building 77 Surplus Operable Unit, Fort Sheridan, Illinois	Higgins, Col. Roy L., U.S. Army	3/3/98	
5.009	3,5	Final Proposed Remedial Action Plan for the Ravines and Beach Area Study Areas of the Surplus Operable Unit, Fort Sheridan, Illinois (see shelf for separate report)	QST Environmental Inc.	6/10/98	USAEC
5.010	3,5	Final Decision Document for the Ravines and Beach Area Study Areas of the Surplus Operable Unit, Fort Sheridan, Illinois	QST Environmental Inc.	9/9/98	USAEC
6.004	1,3,4,5	Letter-re:Closure and Environmental Investigations of Fort Sheridan	Torrisi, S.P. - USATHAMA	2/1/90	Denning, T. - IL EPA
6.005.1	1,3,4,5	Letter-re: US Army - Fort Sheridan, IL -Superfund/Technical	Child, W.C. - IL EPA	4/16/92	Walker, L.D. - Department of the Army
6.006.1	1,3,4,5	Letter-re: Fort Sheridan, IL - Developing a Final Remedial Investigation/Feasibility Study (RI/FS)	Walker, L.D. - Department of the Army	5/29/92	Child, W.C. - IL EPA
6.007	1,3,4,5	Letter-re: Discussions Regarding Issues At Fort Sheridan	Davis, S.K. - IL EPA	5/12/93	Glass, COL. J.D. - US Army Corps of Engineers
6.008	1,3,4,5	Memorandum-re: Base Closure, Fort Sheridan, Observations of the Site Visit on 27 Apr 1993	Ripley, L.J. - US EPA	5/12/93	Fendick, R. - US AEC
6.009	1,3,4,5	Letter-re: Resolution of Problems at Fort Sheridan	Wooten, COL. R.G. - USAEC	5/20/93	Gade, M. - IL EPA
6.013	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Feb. 8-9, 1994	Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy	2/16/94	Fort Sheridan BCT
6.014	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Feb. 17-18, 1994	Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy	2/25/94	Fort Sheridan BCT
6.015	1,3,4,5	Letter-re: Minutes of Telephone Conversation on 18 Apr 1994, Re: OQAPP	Schafer, G.M. - US EPA	4/19/94	Nussbaum, S.D. - IL EPA

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6.018	1,3,4,5	Letter-re: BRAC Environmental Restoration Project at Fort Sheridan	Wojciechowski, LTC P.E. - USAEC	7/11/94	Ayers, T. - IL EPA
6.020	1,3,4,5	Endpoint for Agenda Items, Army-IEPA Fort Sheridan Meeting, August 18, 1994	Fendick, R. - USAEC	8/23/94	Nussbaum, S.D. - IL EPA
6.026	1,3,4,5	Letter-re: Comments to Minutes of Nov. 3, 1994, Conference Call Regarding Fort Sheridan OQAPP Comments	Nussbaum, S.D. - IL EPA	11/14/94	Lechner, C.A. - USAEC
6.028.1	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Dec. 5-6, 1994	Reilly, C. - Fort Sheridan BEC	12/5/94	BRAC Cleanup Team
6.029	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Jan. 18, 1995	Reilly, C. - Fort Sheridan BEC	1/30/95	BRAC Cleanup Team
6.030	1,3,4,5	Memorandum-re: Operable Unit Strategy, Fort Sheridan, IL	Fort Sheridan BCT	2/1/95	Fort Sheridan BCT
6.031	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Feb. 3, 1995	Lechner, C.A. - US AEC	2/3/95	Fort Sheridan BCT
6.032.1	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Mar. 1-2, 1995, Springfield, IL	Reilly, C. - Fort Sheridan BEC	3/1/95	Fort Sheridan BCT
6.035	1	Memorandum-re: Landfill 6 & 7 Storm Sewer Re-Route, Fort Sheridan	Reilly, C. - Fort Sheridan BEC	3/29/95	Fort Sheridan BCT
6.035.1	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Mar. 29, 1995	Reilly, C. - Fort Sheridan BEC	3/29/95	Fort Sheridan BCT
6.035.5	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Apr. 18, 1995	Reilly, C. - Fort Sheridan BEC	4/18/95	Fort Sheridan BCT
6.035.6	1	Letter-re: Possible Unexploded Ordnance (UXO) on U.S. Navy property at Fort Sheridan	Reilly, C. - Fort Sheridan BEC	4/20/95	Schultz, Mark-Navy Public Works
6.036	1,3,4,5	Summary of Meeting, Illinois EPA	Environmental Science and Engineering	4/29/95	
6.037.5	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - May 1617,	Reilly, C. - Fort Sheridan BEC	5/16/95	Fort Sheridan BCT
6.038	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - June 20-21,	Reilly, C. - Fort Sheridan BEC	6/20/95	Fort Sheridan BCT
6.039	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - July 18-19,	Reilly, C. - Fort Sheridan BEC	6/18/95	Fort Sheridan BCT
6.040	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Aug. 15-16,	Reilly, C. - Fort Sheridan BEC	8/15/95	Fort Sheridan BCT
6.041	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Aug. 15-16, 1995 (Revised)	Reilly, C. - Fort Sheridan BEC	10/10/95	Fort Sheridan BCT
6.043	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Oct. 24-25,	Reilly, C. - Fort Sheridan BEC	10/25/95	Fort Sheridan BCT
6.044	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Jan. 9, 1996	Reilly, C. - Fort Sheridan BEC	1/9/96	Fort Sheridan BCT
6.045	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Feb. 20-21,	Reilly, C. - Fort Sheridan BEC	2/20/96	Fort Sheridan BCT
6.046	1	Final Meeting Minutes Landfills 6 & 7 Focused FS	BRAC Office - Fort Sheridan	3/6/96	
6.047	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Mar. 19-20,	Reilly, C. - Fort Sheridan BEC	3/19/96	Fort Sheridan BCT
6.048	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - Apr. 23-24,	Reilly, C. - Fort Sheridan BEC	4/23/96	Fort Sheridan BCT
6.049	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - May 28-29,	Reilly, C. - Fort Sheridan BEC	5/28/96	Fort Sheridan BCT
6.050	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - June 18, 1996	Reilly, C. - Fort Sheridan BEC	6/18/96	Fort Sheridan BCT
6.050.1	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - July 24, 1996	Reilly, C. - Fort Sheridan BEC	6/24/96	Fort Sheridan BCT
6.050.2	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - August 22,	Reilly, C. - Fort Sheridan BEC	8/22/96	Fort Sheridan BCT
6.051	1,3,4,5	Memorandum-re: BRAC Cleanup Team (BCT) Meeting and Conference Call Regarding Background Sampling and Data Evaluation	Reilly, C. - Fort Sheridan BEC	8/28/96	Fort Sheridan BCT
6.052	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - September 25-26, 1996	Reilly, C. - Fort Sheridan BEC	9/25/96	Fort Sheridan BCT
6.053	1,3,4,5	BRAC Cleanup Team (BCT) Updated Meeting Minutes - October 23-24, 1996	Reilly, C. - Fort Sheridan BEC	10/23/96	Fort Sheridan BCT
6.054	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - November 20-21, 1996	Reilly, C. - Fort Sheridan BEC	11/20/96	Fort Sheridan BCT
6.055	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - December 18-19, 1996	Reilly, C. - Fort Sheridan BEC	12/18/96	Fort Sheridan BCT

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DOC NO	AR*	DOCUMENT TITLE	AUTHOR	DATE	RECIPIENT
6.056	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - January 22-23, 1997	Reilly, C. - Fort Sheridan BEC	1/22/97	Fort Sheridan BCT
6.057	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - February 26-27, 1997	Reilly, C. - Fort Sheridan BEC	2/26/97	Fort Sheridan BCT
6.058	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - March 26-27, 1997	Reilly, C. - Fort Sheridan BEC	3/26/97	Fort Sheridan BCT
6.059	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - April 23-24,	Reilly, C. - Fort Sheridan BEC	4/23/97	Fort Sheridan BCT
6.060	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - May 28-29,	Reilly, C. - Fort Sheridan BEC	5/28/97	Fort Sheridan BCT
6.061	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - June 18-19,	Reilly, C. - Fort Sheridan BEC	6/19/97	Fort Sheridan BCT
6.062	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - July 23, 1997	Reilly, C. - Fort Sheridan BEC	7/23/97	Fort Sheridan BCT
6.063	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - August 27,	Reilly, C. - Fort Sheridan BEC	8/27/97	Fort Sheridan BCT
6.064	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - September 24, 1997	Reilly, C. - Fort Sheridan BEC	9/24/97	Fort Sheridan BCT
6.065	1,3,4,5	BRAC Cleanup Team (BCT) Meeting Minutes - October 22,	Reilly, C. - Fort Sheridan BEC	10/22/97	Fort Sheridan BCT
6.066	1,3,5	BRAC Cleanup Team (BCT) Meeting Minutes - Dec 5, 1997	Reilly, C. - Fort Sheridan BEC	12/5/97	Fort Sheridan BCT
6.067	1,3,5	BRAC Cleanup Team (BCT) Meeting Minutes - Feb 4, 1998	Reilly, C. - Fort Sheridan BEC	2/4/98	Fort Sheridan BCT
6.068	1,3,5	BRAC Cleanup Team (BCT) Meeting Minutes - March 24, 1998	Reilly, C. - Fort Sheridan BEC	3/24/98	Fort Sheridan BCT
6.069	1,3,5	BRAC Cleanup Team (BCT) Meeting Minutes - April 29, 1998	Reilly, C. - Fort Sheridan BEC	4/29/98	Fort Sheridan BCT
6.070	1,3,5	BRAC Cleanup Team (BCT) Meeting Minutes - May 28, 1998	Reilly,C - Fort Sheridan BEC	5/28/98	Fort Sheridan BCT
6.071	1,3,5	BRAC Cleanup Team (BCT) Meeting Minutes - June 25, 1998	Reilly,C - Fort Sheridan BEC	6/25/98	Fort Sheridan BCT
7.001	1	Inspection Report, Solid Waste Landfill, Fort Sheridan	Steadman, P.R. - IL EPA	2/7/77	US Army - Fort Sheridan
7.002	1	Inspection Report, Solid Waste Landfill, Fort Sheridan	Child, W.C. - IL EPA	3/16/77	Simpson, LTC US Army - Fort Sheridan
7.003	1	Inspection Report, Solid Waste Landfill, Fort Sheridan	Petrilli, J.F. - IL EPA	12/28/77	Simpson, LTC US Army - Fort Sheridan
7.004	1	Inspection Report, Solid Waste Landfill, Fort Sheridan	IL EPA	2/28/78	US Army - Fort Sheridan
7.005	1	Letter-re: Inspection of Solid Waste Disposal Facility	Petrilli, J.F. - IL EPA	3/14/78	Simpson, LTC, US Army - Fort Sheridan
7.006	1	Inspection Report, Solid Waste Landfill, Fort Sheridan	Wengrow, R. - IL EPA	5/23/78	US Army - Fort Sheridan
7.007	1	Letter-re: Inspection of Solid Waste Disposal Facility	Bechley, K.P. - IL EPA	6/6/78	Simpson - LTC , US Army- Fort Sheridan
7.009	1	Inspection Report, Solid Waste Landfill ,Fort Sheridan	IL EPA	1/12/79	US Army - Fort Sheridan
7.010	1	Memorandum-re: Inspection of Fort Sheridan and Discussion of Permit and Closure Requirements	Bechley, K.P. - IL EPA	1/19/79	Division File
7.011	1	Letter-re: Inspection of Solid Waste Disposal Facility	Bechley, K.P. - IL EPA	1/30/79	Franklin, LTC W.H. Jr., US Army - Fort Sheridan, Director of Facilities Engineering
7.012	1	Letter-re: Violations Noted During Inspection of Sanitary Landfill	Franklin, LTC W.H. Jr., US Army - Fort Sheridan, Director of Facilities Engineering	2/28/79	Bechely, K.P., IL EPA
7.013	1	Application for Permit to Operate a Solid Waste Management Site - Wells Ravine Landfill	Director Facilities Engineering	4/479	IL EPA
7.014	1	Letter-re: Permit Application for Wells Ravine Landfill	Franklin, LTC W.H. Jr., US Army - Fort Sheridan, Director of Facilities Engineering	6/21/79	Smith, S.A., IL EPA
7.015	1	Letter-re: Permit Granted to US Army - Fort Sheridan to Develop a Solid Waste Disposal Site - Wells Ravine Landfill	Cavanagh, T.E. Jr. - IL EPA	9/4/79	Franklin, LTC W.H. Jr., US Army - Fort Sheridan, Director of Facilities Engineering
7.016	1	Letter-re: Development of Solid Waste Disposal Site	Cavanagh, T.E. Jr. - IL EPA	12/19/79	Director of Facilities Engineering
7.017	1	Lab Analysis Data from Inspection to Obtain Landfill Operating Permit	Ketchick, J. - Environmental Engineer	4/22/80	Ayers, T.G., IL EPA

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7.018	1	Inspection Report, Solid Waste Landfill, Fort Sheridan	JAS, IL EPA	6/11/80	Ketchik, J., US Army - Fort Sheridan
7.019	1	Letter-re: Permit for Wells Ravine Landfill Granted	Cavanagh, T.E. Jr. - IL EPA	6/26/80	Franklin, LTC W.H. Jr., US Army - Fort Sheridan, Director of Facilities Engineering
7.020	1	Inspection Report, Solid Waste Landfill, Fort Sheridan	IL EPA	12/23/80	US Army - Fort Sheridan
7.021	1	Letter-re: Failure to Submit Groundwater Sampling Results for Landfill Monitoring Program	Piskin, R. - IL EPA	3/4/81	Gerdes, J., US Army - Fort Sheridan
7.023	1	Inspection Report, Solid Waste Landfill, Fort Sheridan	Shane, D. - IL EPA	5/26/81	US Army - Fort Sheridan
7.024	1	Inspection Report, Solid Waste Landfill, Fort Sheridan	Shane, D. - IL EPA	6/5/81	US Army - Fort Sheridan
7.025	1	Inspection Report, Solid Waste Landfill, Fort Sheridan	IL EPA	7/20/81	US Army - Fort Sheridan
7.026	1	Inspection Report, Solid Waste Landfill, Fort Sheridan	IL EPA	9/22/81	US Army - Fort Sheridan
7.027	1	Inspection Report, Solid Waste Landfill, Fort Sheridan	Evans, J. - IL EPA	11/6/81	Ketchik, J. - US Army - Fort Sheridan
7.028	1	Letter-re: Inspection of Landfill	Bechley, K.P. - IL EPA	12/30/81	Ketchik, J. - US Army - Fort Sheridan
7.029	1	Letter-re: Failure to Submit Groundwater Monitoring Results	Nechvatal, M.F. - IL EPA	5/28/82	Gerdes, J., US Army - Fort Sheridan
7.030	1	Inspection Report, Solid Waste Landfill Fort Sheridan	IL EPA	6/21/82	US Army - Fort Sheridan
7.031	1	Letter-re: Failure to Submit Groundwater Monitoring Results	Nechvatal, M.F. - IL EPA	8/24/83	Gerdes, J., US Army - Fort Sheridan
7.032	1	Letter-re: Failure to Submit Groundwater Monitoring Results	Haney, M.A., IL EPA	11/3/83	Gerdes, J., US Army - Fort Sheridan
7.033	1	Letter-re: Failure to Submit Groundwater Monitoring Results	Haney, M.A., IL EPA	2/7/84	Gerdes, J., US Army - Fort Sheridan
7.034	1	Letter-re: Non-Compliance of the Monitoring Program	Haney, M.A., IL EPA	9/19/84	Gerdes, J., US Army - Fort Sheridan
7.036	1	Letter-re: Finalization of Groundwater Monitoring Requirements for Fort Sheridan-Wells Ravine Landfill	Nechvatal, M.F. - IL EPA	3/5/85	Dean, LTC D.A., Director of Facilities Engineering
7.037	1	Letter-re: Initiation of Modification of Groundwater Monitoring System	Dean, LTC D.A. - Director of Engineering and Housing	4/3/85	Davis, S., IL EPA
7.038	1	Letter-re: Groundwater Sampling Using Leachate at Landfill	Brill, J.S., Director of Engineering and Housing, US Army Fort Sheridan	5/6/86	Haney, M., IL EPA
7.038.1	1	Quarterly Analysis Reports for Water Monitoring Program on Landfill Closure - April 1981 thru June 1986	Dougherty, LTC M.F. - DEH	4/81-6/86	Piskin, R., IL EPA
7.039	1	Inspection Report Solid Waste Landfill Fort Sheridan	Marvel, T.J. - IL EPA	4/14/88	US Army Fort Sheridan
7.040	1	Memorandum-re: Landfill Closure Certification Inspection for Wells Ravine Landfill	Marvel, T.J. - IL EPA	5/17/88	Savage, G., IL EPA
7.041	1,3,4,5	RCRA Inspection of Fort Sheridan	Boyle, J.M. - IL EPA	5/20/88	Talbot, D.L., LTC - Fort Sheridan
7.042	1	Letter-re: Response to Compliance Inquiry Letter Concerning Landfill	Talbott, LTC D.L. - DEH	6/21/88	Savage, G.D., IL EPA
7.043	1	Memorandum-re: Current Status of Monitoring Requirements for Landfill	Rogers, K. - IL EPA	12/8/88	Division File
7.044.1.1	1	Letter-re: Current Actions taken for Closure of Landfill 7	Reilly, C.-BEC, and Schultz, Mark - Navy PWC	11/28/95	Kallis, Chris - IL EPA
8.001.1	1	Memorandum-re: Status of Vinyl Chloride Assessment	Cogliano, James - USEPA	9/29/89	Den, Arnold - USEPA, Region 9
8.004.0.1	1	Letter-re: Report on Gas Vent Liquids Sampling Landfill 7	Schultz, Mark - U.S. Navy Public Works Center	3/31/95	Reilly, C. - Fort Sheridan BEC
8.004.0.2	1	Letter-re: Gas Vent Liquids Sampling Landfill 7	Reilly, C., Fort Sheridan BEC	4/25/95	Schulz, Mark - U.S. Navy Public Works
8.004.0.3	1	Letter-re: Landfill 7 Seep Repair	Rave, Peter A. - USACE	6/12/95	Saltzman, Rob - Ecology Services, Inc.
8.005.1	1	Final Report Outdoor Sampling Landfill 7	USACHPPM	7/1/95	
8.006	1	Addendum, Indoor Air Quality Study and Odor Investigation Landfill 7	USACHPPM	7/1/95	Reilly, C. - Fort Sheridan BEC

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8.007	1	Letter-re: Draft Indoor Air Quality Study and Odor Investigation Report	Reilly, C. - Fort Sheridan BEC	10/20/95	Schulz, Mark - U.S. Navy Public Works Center
8.008	1	Memorandum-re: Final Report Outdoor Sampling Landfill 7, July - August 1995	Lee, Maj. Arthur P.	4/30/96	Reilly, C. - Fort Sheridan BEC
9.002	1,3,4,5	Illinois List of Endangered and Threatened Vertebrate Species	Illinois Department of Conservation	1978	Administrative Order
10.014	3,4,5	Fort Sheridan Concept Plan - Overview	Johnson Johnson & Roy/Inc.	9/30/94	The Fort Sheridan Joint Planning Committee
10.015	1,3,4,5	Fact Sheet: Environmental Program, Fort Sheridan, Illinois	US AEC	1/6/95	Fort Sheridan Restoration Advisory Board
10.015.0.	1,3,4,5	Fact Sheet: Restoration Advisory Board	US Army Fort Sheridan BRAC Office	Jan. 1995	
10.016	1,3,4,5	Summary of the January 17, 1995 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	1/31/95	Fort Sheridan Restoration Advisory Board
10.017	3,4,5	Letter-re: Conceptual Land Use Plan Completion	Johnson, P.W. - Deputy Assistant Secretary of the Army	2/3/95	King, K., Joint Planning Committee Executive Administrator, Fort Sheridan
10.019	1,3,4,5	Summary of the February 21, 1995 Restoration Advisory Board meeting	Reilly, C. - Fort Sheridan BEC	3/13/95	Fort Sheridan Restoration Advisory Board Members
10.022	1,3,4,5	Summary of the March 28, 1995 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	4/11/95	Fort Sheridan Restoration Advisory Board Members
10.023	1,3,4,5	Summary of the April 18, 1995 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	5/5/95	Fort Sheridan Restoration Advisory Board Members
10.024	1,3,4,5	Summary of the May 16, 1995 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	6/6/95	Fort Sheridan Restoration Advisory Board Members
10.025	1,3,4,5	Summary of the June 20, 1995 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	7/6/95	Fort Sheridan Restoration Advisory Board Members
10.026	1,3,4,5	Summary of the July 18, 1995 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	8/2/95	Fort Sheridan Restoration Advisory Board Members
10.027	1,3,4,5	Revised Summary of the August 15, 1995 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	9/6/95	Fort Sheridan Restoration Advisory Board Members
10.028	1,3,4,5	Quarterly Newsletter: Environmental Update, Issue #1- Fort Sheridan	U.S. Army, Fort Sheridan	Fall, 1995	
10.029	1,3,4,5	Summary of the September 19, 1995 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	10/3/95	Fort Sheridan Restoration Advisory Board Members
10.030	1,3,4,5	Updated Final: Community Relations Plan (CRP) Fort Sheridan, Illinois (see shelf for report)	Dames & Moore, Inc.:(Updated by Fort Sheridan BRAC Office	10/1/95	USAEC
10.031	1,3,4,5	Summary of the October 24, 1995 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	11/10/95	Fort Sheridan Restoration Advisory Board Members
10.032	1,3,4,5	Newsletter: Environmental Update	PWC/EFA Environmental Office, Great Lakes	11/10/95	
10.033	1,3,4,5	Summary of the December 7, 1995 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	12/21/95	Fort Sheridan Restoration Advisory Board Members
10.034	1,3,4,5	Quarterly Newsletter: Environmental Update, Issue #2 - Fort Sheridan	U.S. Army, Fort Sheridan	Winter 1995	
10.035	1,3,4,5	Summary of the January 9, 1996 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	1/30'96	Fort Sheridan Restoration Advisory Board Members
10.036	1,3,4,5	Newsletter: Environmental Update	PWC/EFA Environmental Office, Great Lakes	2/1/96	

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10.037	2,5	Public Notice-Re: UXO Time Critical Removal Action	Garcia, Josephine	3/25/96	
10.038	2,5	Letter-re: Ordnance Removal at Fort Sheridan, IL	Reilly, C. - Fort Sheridan BEC	3/26/96	Local Residents
10.039	2,5	Fact Sheet: Ordnance Survey and Removal 38-Acre Former Firing Range	U.S. Army, Fort Sheridan	3/26/96	
10.040	1,3,4,5	Summary of the February 20, 1996 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	4/2/96	Fort Sheridan Restoration Advisory Board Members
10.041	1,3,4,5	Quarterly Newsletter: Environmental Update, Issue #3 - Fort Sheridan	U.S. Army, Fort Sheridan	Spring 1996	
10.042	1,3,4,5	Updated Summary of the March 19, 1996 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	4/9/96	Fort Sheridan Restoration Advisory Board Members
10.043	1,3,4,5	Summary of the April 23, 1996 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	5/16/96	Fort Sheridan Restoration Advisory Board Members
10.044	1,3,4,5	Summary of the May 28, 1996 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	6/10/96	Fort Sheridan Restoration Advisory Board Members
10.045	1	Fact Sheet: Excavation Alternative - Landfills 6 & 7 Interim Action	U.S. Army - Fort Sheridan	July 1996	
10.046	1	Letter-re: Copy of Focused Feasibility Study for Landfills 6 & 7	Reilly, C. - Fort Sheridan BEC	7/8/96	Rooney, M.- Highwood City Administrator; Limardi, D. - Highland Park City Manager; Kiely, R. - Lake Forest City Manager
10.047	1,3,4,5	Summary of the June 18, 1996 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	7/11/96	Fort Sheridan Restoration Advisory Board Members
10.048	1	Fact Sheet: Landfills 6 & 7 Cleanup Action	U.S. Army - Fort Sheridan	Aug. 96	
10.049	1	Public Notice-Re: Announcement of Proposed Plan/Comment Period for Landfills 6 & 7	U.S. Army, Fort Sheridan	8/7/96	
10.050	1	Oral Comments from Public Meeting-re: LF 6 & 7 Preferred Alternative Plan	Sonntag Reporting Service, Ltd.	8/21/96	
10.051	1,3,4,5	Summary of the July 24, 1996 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	9/4/96	Fort Sheridan Restoration Advisory Board Members
10.053	1	Public Comments on the Proposed Plan Landfills 6 and 7	U.S. Army, Fort Sheridan	9/7/96	
10.055	1,3,4,5	Summary of the September 25, 1996 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	10/15/96	Fort Sheridan Restoration Advisory Board Members
10.056	1,3,4,5	Summary of the October 23, 1996 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	11/11/96	Fort Sheridan Restoration Advisory Board Members
10.057	1,3,4,5	Quarterly Newsletter: Environmental Update, Issue #4 - Fort Sheridan	U.S. Army, Fort Sheridan	Nov. 1996	
10.058	1,3,4,5	Summary of the November 20, 1996 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	12/9/96	Fort Sheridan Restoration Advisory Board Members
10.059	1,3,4,5	Summary of the December 18, 1996 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	1/8/97	Fort Sheridan Restoration Advisory Board Members
10.060	1,3,4,5	Summary of the January 22, 1997 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	2/5/97	Fort Sheridan Restoration Advisory Board Members
10.061	1,3,4,5	Summary of the February 26, 1997 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	3/17/97	Fort Sheridan Restoration Advisory Board Members
10.061.5	1,3,4,5	Quarterly Newsletter: Environmental Update, Issue #5 - Fort Sheridan	U.S. Army, Fort Sheridan	Mar. 1997	

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10.062	1,3,4,5	Summary of the March 26, 1997 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	4/11/97	Fort Sheridan Restoration Advisory Board Members
10.063	1,3,4,5	Summary of the April 23, 1997 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	5/21/97	Fort Sheridan Restoration Advisory Board Members
10.064	1,3,4,5	Summary of the May 28, 1997 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	7/9/97	Fort Sheridan Restoration Advisory Board Members
10.065	4	Public Notice-Re: Announcement of Landfill 3 & 4 Proposed	U.S. Army, Fort Sheridan	7/21/97	
10.066	1	Public Notice-Re: Cleanup Decision for Fort Sheridan Landfills 6 & 7	U.S. Army, Fort Sheridan	8/18/97	
10.067	1	Fact Sheet: Cleanup Action at Landfills 6 & 7 Initial Construction Activities	U.S. Army, Fort Sheridan	Aug. 1997	
10.068	1,3,4,5	Summary of the July 23, 1997 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	8/18/97	Fort Sheridan Restoration Advisory Board Members
10.069	1,3,4,5	Quarterly Newsletter: Environmental Update, Issue #6 - Fort Sheridan	U.S. Army, Fort Sheridan	Sept. 1997	
10.070	1,3,4,5	Summary of the August 27, 1997 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	9/15/97	Fort Sheridan Restoration Advisory Board Members
10.071	1,3,5	Summary of the September 24, 1997 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	10/15/97	Fort Sheridan Restoration Advisory Board Members
10.072	4	Public Notice-Re: Cleanup Decision for Fort Sheridan Landfills 3 & 4	U.S. Army, Fort Sheridan	11/10/97	
10.073	3	Fact Sheet: Former Coal Storage Area and Blacksmith's Shop Proposed Cleanup Actions	U.S. Army, Fort Sheridan	Nov. 1997	
10.074	3	Summary of the October 22, 1997 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	11/19/97	Fort Sheridan Restoration Advisory Board Members
10.075	3	Public Notice-Re: Cleanup Proposal for Former Coal Storage Area and Blacksmith's Shop	U.S. Army, Fort Sheridan	11/26/97	
10.076	3,5	Summary of the December 4, 1997 Restoration Advisory Board Meeting	Reilly, C. - Fort Sheridan BEC	1/12/98	Fort Sheridan Restoration Advisory Board Members
10.077	3,5	Summary of the February 4, 1998 Restoration Advisory Board Meeting	Reilly, C.- Fort Sheridan BEC	3/4/98	Fort Sheridan Restoration Advisory Board Members
10.078	1,3,5	Summary of the March 24, 1998 Restoration Advisory Board Meeting	Reilly, C.- Fort Sheridan BEC	5/28/98	Fort Sheridan Restoration Advisory Board Members
10.078.1	1,3,5	Summary of the May 28, 1998 Restoration Advisory Board Meeting	Reilly, C.- Fort Sheridan BEC	6/10/98	Fort Sheridan Restoration Advisory Board Members
10.079	3,5	Public Notice- RE: Army Proposes No Cleanup Required for Fort Sheridan Ravines and Beach Area Study Areas	U.S. Army, Fort Sheridan	6/11/98	
10.080	1,3,5	Summary of the June 17, 1998 Restoration Advisory Board Meeting	Reilly, C.- Fort Sheridan BEC	7/14/98	Fort Sheridan Restoration Advisory Board Members
10.081	1,3,5	Summary of the July 21, 1998 Restoration Advisory Board Meeting	Reilly, C.- Fort Sheridan BEC	9/9/98	Fort Sheridan Restoration Advisory Board Members
11.001	1,3,4,5	Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (Interim Final)	Office of Emergency and Remedial Response, US EPA	10/1/88	

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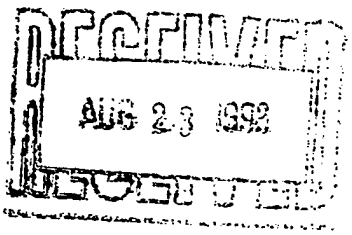
11.002	1,3,4,5	Guidance on Preparing Superfund Decision Documents: The Proposed Plan, The Record of Decision, Explanation of Significant Differences, The Record of Decision Amendment (Interim Final)	Office of Emergency and Remedial Response, US EPA	7/89	
11.003	1,3,4,5	Influence of Casing Materials on Trace-Level chemical in Well Water	Parker, L.V.; A.D. Hewitt; T.F. Jenkins	Spring 1990	
11.006	1,3,4,5	CERCLA Site Discharges to POTWs-Guidance Manual	US EPA	Aug.1990	
11.007	1,3,4,5	Technical Policy #14: Soil Volatile Sampling Procedures	Davis, S.; Otto, S.; Reside, G.; Rowe, G.T.; Tin, A.; -IL EPA	12/17/90	Fendick, R., USATHAMA
11.009	1,3,4,5	Guide to Developing Superfund No Action, Interim Action, and Contingency Remedy RODs	US EPA	April 1991	
11.010	1,3,4,5	Executive Order12580, Superfund Implementation	Office of the President	10/22/91	
11.012	1,3,4,5	Superfund Information Repositories and Administrative Records	US EPA	Aug. 1992	
11.013	1,3,4,5	Guidance for Establishing the Basis for Cleanup Objectives	IL EPA	Dec. 1992	
11.014	1,3,4,5	Certification of Adopted Amendments	Illinois Dept. of Public Health	2/1/93	
11.015	1,3,4,5	Administrative Procedure #26 - Procedure for Determination of a Class II Groundwater	Liss, K.; Young, H.; - IL EPA	3/24/93	
11.016	1,3,4,5	Soil Volatile Sampling Procedures	IL EPA	4/15/93	
11.016.1	1	Presumptive Remedy for CERCLA Municipal Landfill Sites	US EPA	Sept. 1993	
11.018	1,3,4,5	Region IX Preliminary Remediation Goals (PRGs) First Half of 1994	US EPA	2/1/94	US AEC
11.019	3,4,5	Memorandum-re: Military Base Closures, Guidance on EPA Concurrence in the Identification of Uncontaminated Parcels under CERCLA Section 120 (h) (4)	Laws, E.P.; - US EPA	4/19/94	
11.020	1,3,4,5	Administrative Procedure #11-Monitor Well Design Criteria	US EPA	12/14/93	
11.021	1,3,5	Memorandum-re: Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities	Laws, E.P. - US EPA	7/14/94	US EPA - Regional Administrators I-X
11.023	1,3,4,5	Soil Remediation Methodology Objectives	IL EPA	11/14/94	
11.024	1,3,4,5	Letter-re: Illinois Register reflecting promulgated Changes to 35 Illinois Administrative Code (IAC) 620 Regulations	Nussbaum, S.D. - IL EPA	11/23/94	Balliett, A.L. - Chief, Environmental Management Division, Fort McCoy
11.025	1	Application of the CERCLA Municipal Landfill Presumptive Remedy to Military Landfills (Interim Guidance)	US EPA	Apr. 1996	
Please Note: Guidance documents, statutes, and regulations listed as bibliographic sources might not be listed separately in the index.					
These documents are publicly available through IEPA, USEPA and/or public libraries.					
Publicly available technical literature listed as bibliographic sources might not be listed separately in the index.					

* AR LEGEND:
1 = Department of Defense Operable Unit (OU)
2 = Unexploded Ordnance Time Critical Removal Action (Final AR)
3 = Surplus OU
4=Landfills 3 4 OU (Final AR)
5=Ravines and Beach Study Areas (Final AR)

Appendix B

Letters of Support Agency Concurrence

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590



REPLY TO THE ATTENTION OF: SRF-5J

August 20, 1998

Colleen Reilly, BRAC Environmental Coordinator
Ft. Sheridan BRAC Office
3155 Blackhawk Drive, Suite 17
Ft. Sheridan, IL 60037-1289

RE: Draft Decision Document for the Ravines and Beach Study Areas of
The Surplus Operable Unit, Ft. Sheridan, IL
QST, Environmental, Inc., July 22, 1998

Dear Ms. Reilly:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the subject document. The Agency concurs with the Army's decision that based upon available information and the nine evalution criteria presented in the National Oil and Hazardous Materials Pollution Contingeny Plan (The NCP), no remdial action is required in this Operable Unit.

Please call me at 312 886-4843 if you have any questions.

Sincerely yours,

W. Owen Thompson
BRAC Remedial Project Manager

cc: Paul Lake, IEPA

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 Mary A. Gade, Director

(217) 785-7728
(FAX) 782-3258

August 21, 1998

Ms. Colleen Reilly
Fort Sheridan BRAC Office
3155 Blackhawk Drive Suite 17
Fort Sheridan, IL 60037-1289

Re: Draft Decision Document for the Ravines and Beach Study Areas, Surplus Operable Unit

0970555001/Lake
Fort Sheridan (BRAC)
Superfund/Technical

Dear Ms. Reilly:

The Illinois Environmental Protection Agency ("Illinois EPA") received the document referenced above on July 23, 1998. The Illinois EPA has reviewed the Draft Decision Document and all supporting technical information. The Illinois EPA concurs with the Army's determination that No Response Action is necessary for the Ravines and Beach Area Study Areas on the Surplus Operable Unit.

Should you have any questions regarding this information, please do not hesitate to contact me at (217) 785-7728.

Sincerely,

Paul T. Lake, Remedial Project Manager
Remedial Project Management Section
Bureau of Land

PTL:C:\Winnt\Profiles\tsh\ravbeach.ddd

cc: Owen Thompson, USEPA (HSRL-5J)
Ron Jackson, USAEC
Jenny Berman Ross, US Navy - EFA Midwest
Mona Reints, US Army Reserve
Chris Karem, USACE-Louisville
Deborah McKinley, QST
Chris Manikas, SAIC