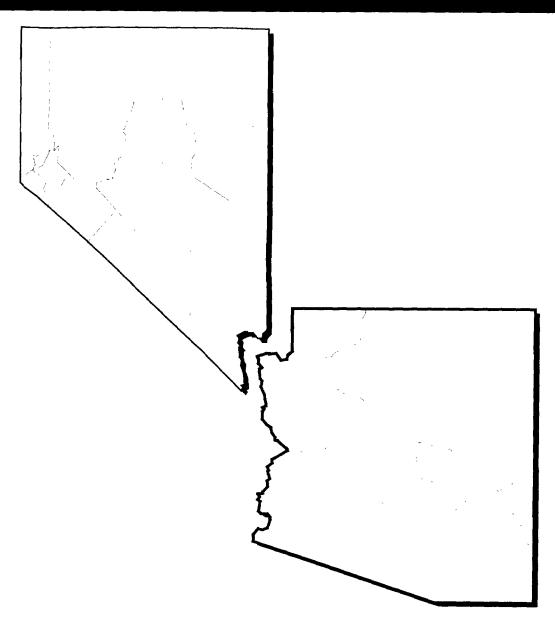


### **SUPERFUND:**

Progress at National Priority List Sites



# ARIZONA & NEVADA Printed on Recycled Paper 1995 UPDATE

### How to Use the NPL Book

The site fact sheets presented in this book are comprehensive summaries that cover a broad range of information. The fact sheets describe hazardous waste sites on the NPL and their locations, as well as the conditions leading to their listing ("Site Description"). The summaries list the types of contaminants that have been discovered and related threats to public and ecological health ("Threats and Contaminants"). "Cleanup Approach" presents an overview of the cleanup activities completed, underway, or planned. The fact sheets conclude with a brief synopsis of how much progress has been made in protecting public health and the environment. The

summaries also pinpoint other actions, such as legal efforts to involve polluters responsible for site contamination and community concerns.

The fact sheets are arranged in alphabetical order by site name. Because site cleanup is a dynamic and gradual process, all site information is accurate as of the date shown on the bottom of each page. Progress is always being made at NPL sites, and the EPA periodically will update the site fact sheets to reflect recent actions. The following two pages show a generic fact sheet and briefly describe the information under each section.

### How Can You Use This State Book?

You can use this book to keep informed about the sites that concern you, particularly ones close to home. The EPA is committed to involving the public in the decision making process associated with hazardous waste cleanup. The Agency solicits input from area residents in communities affected by Superfund sites. Citizens are likely to be affected not only by hazardous site conditions, but also by the remedies that combat them. Site cleanups take many forms and can affect communities in different ways. Local traffic may be rerouted, residents may be relocated, temporary water supplies may be necessary.

Definitive information on a site can help citizens sift through alternatives and make decisions. To make good choices, you must know what the threats are and how the EPA intends to clean up the site. You must understand the cleanup alternatives being proposed for site cleanup and how residents may be affected by each one. You also need to have some idea of how your community intends to use the site in the future, and you need to know what the community can realistically expect once the cleanup is complete.

The EPA wants to develop cleanup methods that meet community needs, but the Agency only can take local concerns into account if it understands what they are. Information must travel both ways in order for cleanups to be effective and satisfactory. Please take this opportunity to learn more, become involved, and assure that hazardous waste cleanup at "your" site considers your community's concerns.

### **NPL LISTING HISTORY**

Provides the dates when the site was Proposed, made Final, and Deleted from the NPL.

#### SITE RESPONSIBILITY

Identifies the Federal, State, and/or potentially responsible parties taking responsibility for cleanup actions at the site.

### **ENVIRONMENTAL PROGRESS**

Summarizes the actions to reduce the threats to nearby residents and the surrounding environment and the progress towards cleaning up the site.

### SITE NAME STATE

EPA ID# ABC0000000



#### **EPA REGION XX**

COUNTY NAME LOCATION

Other Names:

### Site Description

ENDER DESCRIPTION

ROBERT RECOR REPORTED RECORD ROBERT ROBERT RECORDER ROBERT R

**NPL Listing History** 

#### Threats and Contaminants -

#### Cleanup Approach -

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#### Response Action Status -

Site Facts:  $x_{000000}$  are about addressed and addressed and addressed as addressed as addressed and addressed as addressed and addressed as addressed and addressed an



### Environmental Progress

#### Site Repository

### SITE REPOSITORY

Lists the location of the primary site repository. The site repository may include community relations plans, public meeting announcements and minutes, fact sheets, press releases, and other site-related documents.



#### SITE DESCRIPTION

This section describes the location and history of the site. It includes descriptions of the most recent activities and past actions at the site that have contributed to the contamination. Population estimates, land usages, and nearby resources give readers background on the local setting surrounding the site.



#### THREATS AND CONTAMINANTS

The major chemical categories of site contamination are noted, as well as which environmental resources are affected. Icons representing each of the affected resources (may include air, groundwater, surface water, soil, and contamination to environmentally sensitive areas) are included in the margins of this section. Potential threats to residents and the surrounding environments arising from the site contamination also are described.



#### **CLEANUP APPROACH**

This section contains a brief overview of how the site is being cleaned up.





Specific actions that have been accomplished or will be undertaken to clean up the site are described here. Cleanup activities at NPL sites are divided into separate phases, depending on the complexity and required actions at the site. Two major types of cleanup activities often are described: initial, immediate, or emergency actions to quickly remove or reduce imminent threats to the community and surrounding areas; and long-term remedial phases directed at final cleanup at the site. Each stage of the cleanup strategy is presented in this section of the summary. Icons representing the stage of the cleanup process (initial actions, site investigations, EPA selection of the cleanup remedy, engineering design phase, cleanup activities underway, and completed cleanup) are located in the margin next to each activity description.





Additional information on activities and events at the site are included in this section. Often details on legal or administrative actions taken by the EPA to achieve site cleanup or other facts pertaining to community involvement with the site cleanup process are reported here.

### **Guide to the NPL Book Icons**

The "icons," or symbols, accompanying the text allow the reader to see at a glance which environmental resources are affected and the status of cleanup activities at the site.

## Icons in the Threats and Contaminants Section

### Icons in the Response Action Status Section



Contaminated *Groundwater* resources in the vicinity or underlying the site. (Groundwater is often used as a drinking water source.)



Contaminated Surface Water and Sediments on or near the site. (These include lakes, ponds, streams, and rivers.)



Contaminated Air in the vicinity of the site. (Air pollution usually is periodic and involves contaminated dust particles or hazardous gas emissions.)



Contaminated *Soil and Sludges* on or near the site. (This contamination category may include bulk or other surface hazardous wastes found on the site.)



Threatened or contaminated *Environmentally Sensitive Areas* in the vicinity of the site. (Examples include wetlands and coastal areas or critical habitats.)



Initial, Immediate, or Emergency Actions have been taken or are underway to eliminate immediate threats at the site.



Site Studies at the site to determine the nature and extent of contamination are planned or underway.



Remedy Selected indicates that site investigations have been concluded, and the EPA has selected a final cleanup remedy for the site or part of the site.



Remedy Design means that engineers are preparing specifications and drawings for the selected cleanup technologies.



Cleanup Ongoing indicates that the selected cleanup remedies for the contaminated site, or part of the site, currently are underway.



Cleanup Complete shows that all cleanup goals have been achieved for the contaminated site or part of the site.

### **EPA ID**

Number	Site Name
AZD008399263	APACHE POWDER CO.
AZD980735666	HASSAYAMPA LANDFILL
AZD980695969	INDIAN BEND WASH AREA
AZD980695902	LITCHFIELD AIRPORT AREA
AZ0570024133	LUKE AIR FORCE BASE
AZD009004177	MOTOROLA, INC. (52ND STREET PLANT)
AZD980735724	MOUNTAIN VIEW MOBILE HOME ESTATES
AZD980496780	NINETEENTH AVENUE LANDFILL
AZD980737530	TUCSON INTERNATIONAL AIRPORT AREA
AZ7570028582	WILLIAMS AIR FORCE BASE
AZ0971590062	YUMA MARINE CORPS AIR STATION
NVD980813646	CARSON RIVER MERCURY SITE

# APACHE POWDER COMPANY ARIZONA EPA ID# AZD008399263

#### **EPA REGION 9**

Cochise County St. David

Other Names: Apache Nitrogen Products, Inc.

### Site Description

The Apache Powder Company site is located approximately 50 miles southeast of Tucson, Arizona. The site study area includes approximately 1,000 acres of land owned by Apache Nitrogen Products, Inc. (ANP), formerly known as the Apache Powder Company. ANP began operations in 1922 as a manufacturer of industrial chemicals and explosives. Currently, ANP manufactures nitric acid, solid and liquid ammonium nitrate, blasting agents, and nitrogenous fertilizer solutions. Prior to 1971, process wastewater from ANP's operations was discharged on the site into dry washes which flow to the San Pedro River. Since 1971, wastewater has been discharged into unlined evaporation ponds on the site, causing nitrate-contamination of a perched groundwater zone, the shallow aquifer located both directly under and outside of ANP's property boundary, and the surface water of the San Pedro River located east of the site.

Site Responsibility:

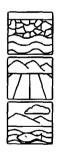
This site is being addressed through Federal and potentially responsible

parties' actions.

**NPL LISTING HISTORY** 

Proposed Date: 06/10/86 Final Date: 08/30/90

### Threats and Contaminants



Groundwater is contaminated with arsenic, fluoride, and nitrate. Soils are contaminated with antimony, arsenic, barium, beryllium, chromium, lead, manganese, nitrate, vanadium pentoxide, 2,4-dinitrotoluene (DNT), and 2,6-DNT. Nitrate is the primary contaminant of concern due to the potential ingestion risk for infants that could result in methemoglobinemia ("cyanosis"), commonly referred to as "blue baby syndrome." Coming into contact with or accidentally ingesting contaminants may pose a health risk to individuals.

### Cleanup Approach

The site is being addressed in two stages: immediate actions and a cleanup of the entire site that will address contamination of the perched groundwater, shallow aquifer groundwater, and contaminated soils.

### Response Action Status -



Immediate Actions: In 1987, as a result of earlier water quality testing by the EPA. ANP provided bottled water to area residents whose wells were contaminated with nitrate. In 1993, ANP conducted a removal action in Wash 3 to excavate buried

drums and consolidate DNT-contaminated soils. In 1994, ANP replaced seven nitratecontaminated shallow-aguifer wells with unpolluted deep-aguifer wells.



Entire Site: The investigation conducted by the EPA during 1988 and by ANP between 1990 and 1992 identified the primary contaminants of concern in the soils and groundwater. The investigation identified various cleanup alternatives for five areas of contamination: two groundwater areas and three soils areas. In September 1994, the

EPA selected the use of a brine concentrator for treatment of the perched groundwater, construction of wetlands to treat the shallow aguifer contamination, and a combination of both on-site capping and off-site treatment and disposal of the contaminated soils. In January 1995, ANP began design of these selected remedies.

Site Facts: In October 1989, the EPA issued ANP an Administrative Order to complete investigative activities and a feasibility study of the cleanup alternatives. After taking over the work, the EPA completed the investigation and feasibility study reports in June 1994, issued proposals for site cleanup in July 1994, and selected the cleanup approach in September 1994. In December 1994, the EPA issued ANP a second Order for the design and implementation of the remedies. ANP began the design activities in January 1995.

### Environmental Progress



The installation of deep-aquifer replacement wells provides a safe drinking water supply to affected residents by eliminating potential exposure to nitrate-contaminated drinking water. Cleanup of the perched groundwater and removal of contaminated soils will eliminate additional potential exposure risk.

### Site Repository



Benson Public Library, 300 South Huachuca, Benzon, AZ 85602

### HASSAYAMPA LANDFILL ARIZONA EPA ID# AZD980735666

#### **EPA REGION 9**

Maricopa County
40 miles west of Phoenix

### **Site Description**

The 47-acre Hassayampa Landfill site has been used as a municipal landfill since 1961. The landfill accepted approximately 3,000,000 gallons of liquid and 4,000 tons of solid hazardous waste. From 1979 to 1980, hazardous wastes were deposited in unlined trenches located in a 10-acre portion of the site. In 1981, the Arizona Department of Health Services (ADHS) installed three monitoring wells on site. Samples collected from these wells were found to be contaminated with volatile organic compounds (VOCs). Approximately 350 people draw drinking water from private wells, and 2,800 acres of farmland are irrigated by wells within 3 miles of the site. The nearest residence is approximately 1,000 yards south of the site. Hassayampa River, an intermittent stream, is located 3/4 mile east of the landfill.

Site Responsibility:

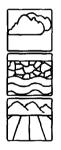
This site is being addressed through

Federal, State, and potentially responsible parties' actions.

**NPL LISTING HISTORY** 

Proposed Date: 06/10/86 Final Date: 07/22/87

#### Threats and Contaminants



Ambient air contains very low levels of VOCs. Groundwater sampling results also have identified various VOCs. Soils beneath the waste pits contain VOCs, heavy metals, pesticides, and lime wastes. Risk assessment results indicate that potential health risks may exist for individuals who ingest the contaminated groundwater or come into direct contact with hazardous wastes present in several of the trenches. Currently, there does not appear to be any potential for adverse health effects due to inhalation of VOCs in the air.

### Cleanup Approach

This site is being addressed in a long-term remedial phase focusing on cleanup of the entire site.



**Entire Site:** In 1991, under EPA oversight, the parties potentially responsible for the contamination completed an investigation of the nature and extent of contamination at the site. Following the investigation, the EPA selected a remedy consisting of

extracting and treating contaminated groundwater and reinjecting the treated water; monitoring the treated groundwater to ensure the effectiveness of the remedy; treating the contaminated soil using soil vapor extraction; capping the landfill; and controlling restricting future uses of the site through deed restrictions. Design of the landfill cap was completed in 1994, and its construction was completed in early 1995. Design of the soil and groundwater remedy is scheduled to begin in 1995. Operation of the groundwater treatment system will continue until cleanup goals are met.

**Site Facts:** In 1987, the EPA sent Special Notice Letters informing 108 individuals and companies of their potential responsibility for wastes contaminating the site. In February 1988, several potentially responsible parties entered into a Consent Order with the EPA in which they agreed to conduct the site investigation under EPA oversight. More than 50 other potentially responsible parties later contributed funds toward the completion of the investigation. A Consent Decree was signed in August 1994 which requires 12 of the parties responsible for sending large amounts of waste to the site to design, construct, and operate the selected remedy. The settlement also requires the 12 major parties to reimburse EPA for all of its past and future response costs at the site. The settlement provides for 77 of the potentially responsible parties responsible for sending small amounts of waste to the site (referred to as *de minimis* parties) to resolve their liability at the site by making cash payments directly to the 12 major settling potentially responsible parties. The size of the cash payment required from the 77 *de minimis* parties is based on the volumetric share of the waste sent to the site by each of these parties. The *de minimis* settling parties are not responsible for conducting any of the cleanup work at the site.

### Environmental Progress



After adding this site to the NPL, the EPA performed preliminary investigations and determined that the Hassayampa Landfill site does not pose an immediate threat to public health or the environment while cleanup activities are being designed and built at the site.

### Site Repository



Buckeye Library, 310 North 6th Street, Buckeye, AZ 85326



### **EPA REGION 9**

Maricopa County
Parts of Scottsdale, Tempe, and
Phoenix, and the Salt River Indian
Reservation

### Site Description

The Indian Bend Wash Area site is more than 6 miles long and covers 13 square miles. The site has been divided into two areas known as the North Indian Bend Wash Area (NIBW) and the South Indian Bend Wash Area (SIBW). In 1981, the Cities of Scottsdale and Phoenix discovered volatile organic compounds (VOCs) in seven municipal supply wells. These contaminants appear to have originated from several industrial facilities that operated in the NIBW; two of these facilities, Motorola and Beckman, are located upgradient from five municipal water wells. Six of seven contaminated wells were removed from service shortly after discovery; the seventh was equipped with a treatment system to remove VOCs, and then was returned to full service. Some facilities at the SIBW in Tempe, Arizona have discharged VOCs into the ground; other facilities may have discharged heavy metals, cyanides, and acids. Landfills at this area have received a variety of hazardous materials, including vinyl chloride and foundry slag. Approximately 70 percent of the City of Scottsdale's municipal water needs are supplied by groundwater. Approximately 130,000 people live in Scottsdale.

Site Responsibility: This site is being addressed through

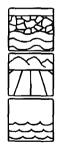
Federal and potentially responsible

parties' actions.

**NPL LISTING HISTORY** 

Proposed Date: 12/30/82 Final Date: 09/08/83

### Threats and Contaminants



Groundwater is contaminated with VOCs, boron, chloroform, lead, and zinc. Soil is contaminated with VOCs, cyanides, acids, and heavy metals including chromium and lead. Surface water also contains VOCs. People could be exposed to chemicals from the site if they accidentally ingest or come into direct contact with contaminated groundwater, soil, or surface water. Groundwater at the site is used to irrigate various crops and feed livestock. Contaminants could bioaccumulate in agricultural products that use contaminated groundwater.

### Cleanup Approach

This site is being addressed in seven long-term remedial phases focusing on cleanup of the Northern Indian Bend Wash Area; the Scottsdale Area; the Beckman Industries Area; the Motorola Area; the groundwater at the South Indian Bend Wash Area; the Siemens Area; and the soil at the South Indian Bend Wash Area.

#### Response Action Status -



**Northern Indian Bend Wash Area:** The EPA is addressing the NIBW as a separate area of study from SIBW because the contaminants apparently come from a different source. An investigation into the extent and type of contamination was

completed in 1991 and included recommendations on the best alternatives for cleaning up the site. The selected cleanup remedy includes a soil vapor extraction system to address contaminated soil and continued monitoring of the upper zone in the groundwater. Design of the remedy was completed in 1992. Cleanup activities are ongoing and are expected to be completed in late 1995.



**Scottsdale Area:** In 1988, the EPA selected a cleanup alternative, which included containing contaminants by extracting groundwater from the middle and lower parts of the aquifer, and pumping five City of Scottsdale wells and air stripping the water to

clean it. The remedy includes treatment by granular activated carbon to extract the contaminants from the stream of air. In 1990, the potentially responsible parties installed wells that will be used to monitor the effectiveness of the cleanup process. The parties completed construction of the wells in 1990. The cleanup is scheduled to be completed in 1995.

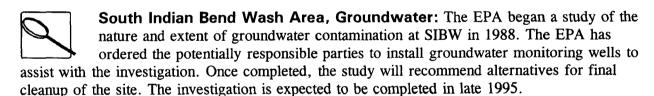


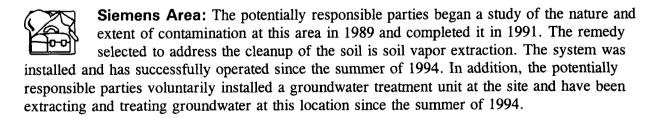
**Beckman Industries Area:** The EPA completed an investigation into the nature and extent of contamination at this area in 1991. Based on the results of the investigation, the final cleanup remedy selected is soil vapor extraction.



Motorola Area: The potentially responsible parties completed an investigation of the extent of contamination at the area in 1991. The final cleanup remedy selected to address site contamination is soil vapor extraction. The design phase is expected to

conclude in 1995. Motorola is currently late in submitting the design specifications.







South Indian Bend Wash Area, Soil: The EPA began a study of the nature and extent of soil contamination at SIBW in 1990. A remedy for the treatment of VOCs in soils was chosen in 1993. SIBW consists of approximately 10 subsites within the

study area that are at various stages of the investigation process. These subsites have the same type of contaminants and very similar characteristics; therefore, a "plug-in" remedy was selected that provides for cleanup by soil vapor extraction when a defined set of conditions associated with volatile organic contamination are found in the soil. If upon completion of an investigation of a subsite these conditions are met, the subsite will be addressed through this "plug-in" remedy. Therefore, subsites can proceed to design and cleanup activities even though investigation work is still underway for some of the subsites. In 1994, one subsite "plugged-in" and is currently in the design phase. The EPA expects two additional subsites to "plug-in" during 1995.

### Environmental Progress



After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Indian Bend Wash Area site. Cleanup is currently underway at the Northern Indian Bend Wash Area, Scottsdale Area, and Siemens Area. Remedies have been selected to address contamination at the Beckman Area and Motorola Area, and remedies are being designed for one subsite in the Southern Indian Bend Wash Soil Area while remaining investigations are underway.

### Site Repository



Scottsdale Public Library, Civic Center Library, 3839 Civic Center Boulevard, Scottsdale, AZ 85251

Tempe Public Library, (South Area) 3500 South Rural Road, Tempe, AZ 85282

Phoenix Public Library, 12 East Mcdowell Road, Phoenix, AZ 85004

# AREA ARIZONA

EPA ID# AZD980695902



#### **EPA REGION 9**

Maricopa County Goodyear

#### Other Names:

Phoenix-Goodyear Airport Area Litchfield Airport Industrial Area Phoenix-Litchfield Airport Area

### Site Description

The Litchfield Airport Area is a 35-square-mile site that covers a portion of the City of Goodyear, Arizona, including the present Phoenix-Goodyear Airport. In 1981, the Arizona Department of Health Services discovered contaminated groundwater near the airport. The State also found contaminated groundwater at Unidynamics, a facility located to the north of the airport. Soils were found to contain trichloroethylene (TCE) at both areas. The EPA sampled 89 wells in the area. Although 43 of these wells were found to contain TCE at levels that exceed Federal health standards, no water containing contaminants above these levels has been used in the municipal supply system since 1981. The combined population of Avondale and Goodyear is approximately 30,000 people.

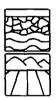
Site Responsibility: This site

This site is being addressed through Federal, State, and potentially responsible parties' actions.

**NPL LISTING HISTORY** 

Proposed Date: 12/30/82 Final Date: 09/08/83

#### **Threats and Contaminants**



Groundwater and soil contain volatile organic compounds (VOCs) including TCE and chromium. The EPA concluded that, although TCE and other chemicals contaminate the groundwater in the vicinity of the site, the risk to people is minimal because the contaminated groundwater currently is not being used for drinking purposes. Although the cities of Goodyear and Avondale use groundwater for their drinking water supplies, their drinking water currently meets all State and Federal standards.

### Cleanup Approach

This site is being addressed through initial actions and three long-term remedial phases that focus on cleanup of the southern area shallow groundwater, Unidynamics area, and remaining southern contamination.



**Initial Actions:** In the southern portion of the site, the former chromium sludge drying bed has been cleaned up by using on-site solidification technology.

Construction of the remedy was completed in early 1993. Solidifying the sludge bed has prevented migration of chromium into the groundwater and chromium dust particles into the



Southern Area Shallow Groundwater: In 1987, the EPA selected a cleanup strategy to control the movement and level of contaminants in the shallow groundwater directly below the southern portion of the site. The extracted water will

be treated through air stripping and returned to the shallow groundwater system. Goodyear Tire and Rubber began to pump and treat the shallow groundwater under the site in 1989. In 1993, the expansion of the extraction and injection well system was completed. This expansion more than doubled the treatment rate of shallow groundwater. The pump and treat system is expected to operate into 1999.



Unidynamics Area: In 1989, the EPA selected a cleanup remedy that includes a soil vapor extraction system and a groundwater pump and treat system. Unidynamics began to design the selected remedy in early 1991 and began cleanup of the

contamination in mid-1993. The initial phases of the groundwater and soil cleanup are ongoing.



until late 1995.

Remaining Southern Area Contamination: In 1989, the EPA selected a cleanup remedy to address contamination at the rest of the southern portion of the site. The remedy includes a soil vapor extraction system to treat contaminated soil, and a pump and treatment system to clean the deep groundwater. Contamination from the groundwater is removed through liquid-phase granular activated carbon devices. In 1994, both the soil and deep groundwater cleanup systems began full-scale operation. The remedies are scheduled to operate

Site Facts: In 1988, the EPA, Department of Defense (DOD), and Goodyear Tire & Rubber Company finalized an agreement whereby Goodyear Tire will carry out cleanup activities for part of the shallow groundwater contaminated under the southern section of the site. In 1990, the EPA issued Unidynamics a Unilateral Administrative Order to design and implement all cleanup work required for the northern section of the site. In 1991, the EPA, Goodyear Tire & Rubber Co., Loral Defense Systems-Arizona, and the State of Arizona signed a Consent Decree whereby Goodyear Tire will design and implement soil and deep groundwater cleanup activities. In 1992, the EPA, Goodyear Tire & Rubber Co., and Loral Defense Systems-Arizona signed a Consent Order whereby Goodyear Tire will clean up a chromium sludge drying bed.

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At the southern portion of the site, cleanup actions have either been completed or are in operation. At the northern portion of the site, the first phases of the groundwater and soil cleanup are operating. Construction of the second phase of both systems are expected to begin by mid-1995. The third phase of groundwater treatment is currently being designed.

### Site Repository

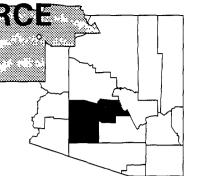


Contact the Region 9 Superfund Community Relations Office.

### LUKE AIR FORCE **BASE**

**ARIZONA** 

EPA ID# AZ0570024133



#### **EPA REGION 9**

Maricopa County Glendale

### Site Description

The primary mission of the 4,198-acre Luke Air Force Base (LAFB) site was to provide advanced flight training to fighter pilots. Discharges and waste disposal practices at LAFB resulted in soil and possible groundwater contamination. Thirty-two areas of the base are subject to further investigation: two fire training areas; a waste oil and fuels underground storage tank area; three waste oil disposal trench areas; three surface drainage canals receiving oily wastes; a sewage treatment plant effluent canal; the site of an abandoned Defense Reutilization and Marking Office; thirteen land disposal sites (one of which contains a radiological disposal area); an old incinerator site; a former outside transformer storage site; two leaking underground storage tank sites; an abandoned surface impoundment; an ammunition storage area; a skeet range; and the base production wells. Contaminants used on site include organic solvents and paint strippers, waste oil spills, petroleum spills, metal plating wastes, hydraulic fluids, and radiological wastes. There are approximately 4,900 military personnel and dependents living on base. Civilian and other military personnel who commute to the base daily from off-base areas bring the total daily base population to approximately 8,000. The cities of Goodyear, Youngtown, and Phoenix depend on the water from the Phoenix groundwater basin that underlies the site for their drinking water supplies.

Site Responsibility: This site is being addressed through

Federal actions.

**NPL LISTING HISTORY** 

Proposed Date: 07/14/89 Final Date: 08/30/90

#### Threats and Contaminants

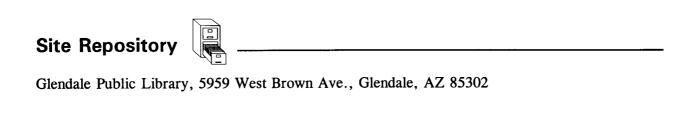


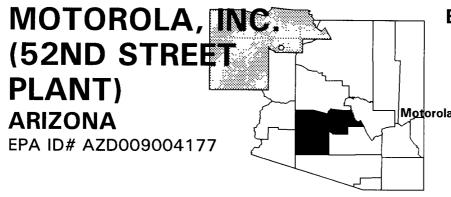
Soil is contaminated with waste oils and volatile organic compounds (VOCs) resulting from the diverse processes that have taken place on the site. Groundwater is potentially contaminated with waste oils and VOCs also. Potential human health hazards include accidental ingestion or direct contact with contaminated materials.

Cleanup Approach ————————————————————————————————————				
This site is being addressed in three stages: initial actions and two long-term remedial phases focusing on cleanup of the entire site and soil contamination.				
Response Action Status ————————————————————————————————————				
Initial Actions: Initial cleanup actions included: closing a former waste-oil and contaminated-fuel storage site; removing the tanks and capping the area with concrete; and installing monitoring wells. In 1990, soil around the Agua Fria River was stabilized by installing a grouted retaining wall. In addition, a vapor extraction system is being used to remove VOCs from soils in the North Fire Training Area.				
Soil Contamination: An investigation into the soil contamination at the site began in 1990. Investigations were completed and cleanup remedies were selected in early 1994. Cleanup remedies include no further action at seven of eight soil areas; inspection and maintenance of a concrete cap; and excavation, biological treatment, and on-site disposal of soils from the canal portion of the site. Design of the remedies is ongoing and scheduled for completion in 1995, at which time cleanup will begin.				
Entire Site: In 1990, the EPA began oversight of the basewide investigation into the nature and extent of contamination. In 1994, the laboratory conducting the sampling tests for the site came under investigation for data quality problems. Currently, those areas affected by the laboratory testing are on hold pending verification of the quality of the data. Activities at remaining areas have continued, including treatability studies for soil contamination and a risk assessment study to determine the potential risk posed by the site.				
Site Facts: The Luke Air Force Base site is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. A Federal Facilities Agreement to conduct the site cleanup plan was signed in September 1990. Under the terms of this Agreement, a basewide investigation and remedy selection is expected to be drafted by 1995.				
Environmental Progress				

June 1995 2 LUKE AIR FORCE BASE

Closing the waste oil and fuel storage site, removing tanks, capping the area, and installing monitoring wells have reduced the potential for exposure to hazardous materials at the Luke Air Force Base site while further studies are underway, and cleanup activities are being planned.





### **EPA REGION 9**

Maricopa County Phoenix

Other Names:
Motorola, Inc. Discrete Semiconductor

### Site Description

Motorola, Inc. (52nd Street Plant) manufactures semiconductors and related components on this 90-acre site, using solvents in the production process. In 1983, Motorola tested several underground storage tanks for leaks. Results showed that one tank containing volatile organic compounds (VOCs) was leaking. Further investigations determined that on-site groundwater and soil, as well as off-site groundwater to the west were contaminated. Motorola has detected contamination in monitoring wells at least 3 miles from the facility. Although the site lies in an area with drinking water provided by municipal water service, private wells have been identified around the site. Water for irrigation is provided by the Salt River Project. Approximately 500 residents live within 1 mile of the site.

**Site Responsibility:** This site is being addressed through

Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 10/15/84 Final Date: 10/04/89

### **Threats and Contaminants**



Groundwater underlying the site, soil, and soil gas contain various VOCs from solvent use at the site. People who accidentally ingest or come into direct contact with contaminated groundwater or soil may be at risk.

### Cleanup Approach

This site is being addressed in three stages: interim actions and two long-term remedial phases that both focus on cleanup of the contaminated groundwater plume.

### Response Action Status -



Interim Actions: Motorola has taken several interim actions to monitor and develop treatment remedies for contaminated groundwater. In 1983 and 1984, Motorola installed 22 on-site and six off-site monitoring wells. In 1986, additional monitoring

wells were installed. The company also initiated an on-site groundwater treatment program that included treatability testing, design, and installation of a pilot treatment plant; treatment of groundwater; and use of the effluent in the plant's air fume scrubbers.

Groundwater Plume (First Action): In 1988, the EPA selected a remedy to clean up a portion of the site by recovering the soil gas and groundwater and treating them in an on-site facility. On-site and off-site contaminated groundwater is being pumped and treated by carbon adsorption at the treatment facility. The treated groundwater is then used in the manufacturing processes, replacing drinking water supplied by the City of Phoenix. The fullscale soil vapor extraction and treatment facility has been operating since 1992.



Groundwater Plume (Second Action): Motorola, under State supervision, conducted an investigation of the remaining portion of the contaminant plume. In 1994, the State and EPA selected a remedy to contain the plume over an area that extends about 3 miles to the west of the interim Motorola plant. The extracted groundwater will be treated off site and reinjected into the aquifer.

### **Environmental Progress**



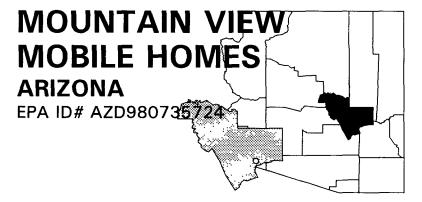
The interim actions undertaken by Motorola and the soil and groundwater recovery and treatment systems have made the site safer while additional cleanup activities are being planned.

### Site Repository



Arizona Dept. of Environmental Quality, Remedial Projects Unit, 3033 N. Central Ave., Phoenix, AZ 85012

Phoenix Public Library, Saguaro Branch, 2802 N. 46th Street, Phoenix AZ



### **EPA REGION 9**

Gila County
2 miles from Globe

Other Names: Globe Site

### Site Description

The 17-acre Mountain View Mobile Homes site was developed in 1973 on the site of the former Metate Asbestos Corporation's chrysotile asbestos mill. In 1979, asbestos contamination of the site was discovered by local health officials inspecting the waste disposal system. Small piles of asbestos mill tailings were found against the abandoned mill structures and the adjacent railroad tracks. Before 1973, three mills in the area processed chrysotile asbestos ore from nearby mines. Because they failed to meet new EPA standards for emissions, two of the mills were ordered closed by the County in 1973. Before closing, however, the owner of one of the mill sites obtained a permit to rezone the property into a residential subdivision and continued operations for several weeks while residents were moving into the mobile home community. Asbestos mill tailings were used as primary landfill material before the site was partially covered with topsoil. The mill buildings and asbestos-laden equipment remained standing in the middle of the mobile homes. The third mill, with its large pile of asbestos mill tailings, continued to operate a few hundred yards from the mobile homes. Approximately 100 to 130 people lived in the mobile home park. The Town of Globe has a population of 8,000, and the adjacent Town of Miami has 3,000 residents.

Site Responsibility: This site was addressed through

Federal and State actions.

**NPL LISTING HISTORY** 

Proposed Date: 12/30/82 Final Date: 09/01/83 Deleted Date: 04/18/88

#### Threats and Contaminants



The air and soils on the site were contaminated with asbestos. Prior to site cleanup, area residents who came in direct contact with or accidentally ingested the asbestos-containing soil may have been at risk. In addition, inhaling asbestos fibers posed a potential for adverse health effects.

Cleanup	Approach
•	••
Response	Action Status ————————————————————————————————————
	<b>Initial Actions:</b> In 1980, the State provided temporary housing for the residents while the site was being decontaminated. The old mill buildings were demolished, and topsoil was used to cover the contaminated soil. Wind, water, and public activity

soon eroded the soil covering, which again exposed the asbestos tailings.



**Entire Site:** In 1983, the EPA selected a remedy to clean up the site that included: permanently relocating the mobile home residents; cleaning the site and demolishing and burying on site all the homes and sewage treatment plant; closing the site by

covering it with either clay or a synthetic material, and placing clean soil on top of the site; fencing the area; and periodically inspecting and maintaining the site. Permanent relocation of all residents was completed in 1985, and ownership of the purchased property was transferred to the State. Following relocation of the residents, the site was cleaned up. The homes and other structures were crushed and buried on site in two natural depressions. Drainage culverts and enclosed pipes were installed to reduce the potential for erosion of the cover soils. A filter fabric was placed over the entire site to act as a physical barrier to upward movement of asbestos fibers and to prevent erosion. Clean soil was placed over the filter fabric, and compacted and crushed rock was added to complete the cover. The site was fenced to protect the integrity of the cover. The State has agreed to maintain the site for a minimum of 20 years. The EPA and the State determined that the site is protective of public health and the environment and that no further cleanup is required. The site was deleted from the NPL in 1988. A five year review, conducted in 1991, confirmed the effectiveness of the remedy and ensured the safety of the site.

**Site Facts:** The Metate Asbestos mill was ordered closed by the Gila County Air Quality Control District in 1973.

### Environmental Progress



The numerous cleanup and relocation activities described above have eliminated the potential for exposure to asbestos-laden materials at the Mountain View Mobile Homes site. Area residents have been permanently relocated, and cleanup actions have successfully controlled site contamination. The EPA and the State have determined that the site is now safe for nearby residents and the environment and deleted it from the NPL in 1988.



#### **EPA REGION 9**

Maricopa County **Phoenix** 

Other Names: Salt River Landfills

### Site Description

The 213-acre Nineteenth Avenue Landfill site operated as a sanitary landfill between 1957 and 1979. One 200-acre portion of the site, Cell A, is located on the northern bank of the Salt River. A 13-acre portion of the landfill, Cell A-1, is located on the southern bank of the Salt River. In the past, sand and gravel companies excavated material along a 7-mile stretch of the Salt River. The City of Phoenix took over several of these pits for use as waste disposal sites. The Nineteenth Avenue Landfill accepted municipal, radioactive, hospital, and industrial wastes. Portions of the landfill are within the 100-year flood plain of the Salt River. Early in 1979, the river flooded, raising the water table and filling several pits. The high water also breached several dikes, opening landfill cells and causing refuse to wash into the river. Water also infiltrated directly into the cells, increasing the potential for leachate movement. Leachate is being generated from the site and is contaminating the groundwater. In addition, saturation of the waste has generated excess amounts of methane gas. The landfill was closed by the State in 1979. The population within 6 miles is approximately 6,000 people. The nearest residence is 1/3 mile from the site. The area's primary drinking water is provided by the City of Phoenix water distribution system. The municipal system draws water from surface water sources over 30 miles away. The nearest drinking water supply well is over 3 miles away. An industrial well and an agricultural well are located 200 feet and 800 feet from the site.

This site is being addressed through Site Responsibility:

Federal, State, and local actions.

**NPL LISTING HISTORY** 

Proposed Date: 12/30/82 Final Date: 09/08/83

### Threats and Contaminants



Groundwater contains volatile organic compounds (VOCs), heavy metals including arsenic, barium, mercury, and nickel, and beta radiation. Refuse in the landfill contains VOCs and pesticides. Soil contains VOCs, polychlorinated biphenyls (PCBs), and pesticides. The generation and migration of methane gas is a hazard. Methane may collect and reach explosive levels in enclosed buildings or other structures adjacent to the site. The possibility of people being exposed to these contaminants is unlikely, since there are no residential areas located within 1/4 mile of the site, and groundwater is not used for drinking water. Area residents and site workers who come in direct contact with or accidentally ingest the contaminated groundwater, soil, or refuse may suffer adverse health effects.

### Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

#### Response Action Status -



Immediate Actions: Earthen berms were constructed on the site to limit access. The site was covered with sand, gravel, and stones. In 1981, the City installed a system to collect methane gas and installed monitoring wells to sample the

groundwater.



Entire Site: In 1989, the EPA selected a remedy to clean up the landfill by installing a gas collection and treatment system, covering the landfill with a clay soil cap to prevent water from coming into contact with the buried materials, and constructing bank protection levees between the river and the landfill to prevent erosion. In 1990, the City of Phoenix began designing the technical specifications to clean up the site. Design

### Environmental Progress



Methane control devices installed at the site have eliminated the potential for gas accumulation and explosion at the site. The construction of berms, covering of the site, and the installation of monitoring wells have reduced the potential for exposure to contaminated materials while final cleanup remedies are being designed at the Nineteenth Avenue Landfill site.

activities were completed in the fall of 1994, and construction is expected to begin in 1995.

### Site Repository



Ocotillo Branch Public Library, 102 West Southern Avenue, Phoenix, AZ 85041



### **EPA REGION 9**

Pima County Tucson

Other Names: Hughes Aircraft Company USAF Plant 44

### Site Description

The 24-square-mile Tucson International Airport Area (TIAA) site includes the Tucson International Airport, portions of the San Xavier Indian Reservation, residential areas of the Cities of Tucson and South Tucson, and the Air Force Plant #44/Hughes Aircraft Company facility. At least 20 facilities have operated in the TIAA area since 1942, including: aircraft and electronics facilities, which discharged waste liquids directly into the soil; fire drill training areas, where wastes from training operations were left in unlined pits; and unlined landfills, which received various wastes from several sources. The first indications of groundwater contamination at TIAA appeared in the early 1950s, when elevated levels of chromium were detected in a municipal supply well adjacent to the U.S. Air Force Plant #44. The U.S. Air Force Plant #44, which has been operated under contract by the Hughes Aircraft Company (HAC) since 1951, is believed to be a major contributor to groundwater contamination. The facility used trichloroethylene (TCE) as a metal degreaser and chromium in electroplating. Wastewater and spent solvents were discharged into unlined ditches or disposed of in waste pits and ponds. Surface water flowed off HAC property and onto the San Xavier Reservation. Beginning in 1976, lined wastewater holding ponds were constructed to receive wastewater discharges. The State also closed a well at the plant because of high levels of chromium. A second source of contamination at the TIAA site is believed to be the Tucson Airport Hangar Area, which was occupied by various defense contractors from 1942 to 1958. During this period, volatile organic compounds (VOCs) were used and disposed of on site and in the airport landfill. Other more recent occupants of the hangar also may have contributed to the groundwater contamination. Sources of contamination at the northern and eastern edges of the airport are believed to be the Arizona Air National Guard, the Burr-Brown Corporation, and West-Cap Arizona. Due to these operations, localized groundwater east of the main contaminant plume is also contaminated. The City of Tucson is dependent on groundwater for its water supply. Before the discovery of groundwater contamination, wells within the site boundaries provided water for over 47,000 people. The Santa Cruz River borders the site.

Site Responsibility:

This site is being addressed through Federal, State, local, and potentially responsible parties' actions.

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NPL LISTING HISTORY Proposed Date: 12/30/82 Final Date: 09/08/83

April 1995

### Threats and Contaminants



Groundwater underlying the site and soil contain VOCs and chromium. People who come in direct contact with or accidentally ingest contaminated groundwater and soil may be at risk.

### Cleanup Approach

This site is being addressed in three stages: immediate actions and two long-term remedial phases focusing on cleanup of groundwater and soils.

### Response Action Status —



Immediate Actions: In 1981, the City of Tucson began closing all municipal wells that exceeded the State health levels and notified private well users of potential risks. Since 1987, the Air Force has been extracting and treating groundwater in the southern portion of the site. By 1987, 35 lined wastewater holding ponds had been built to receive process wastewater. In 1991, contaminated sludges from a concrete sump were removed.

Groundwater: In 1988, the EPA selected a remedy to treat the groundwater in the northern portion of the site by pumping and air stripping the contaminated groundwater, followed by discharging the treated water to the municipal water distribution system. The emissions from the treatment process are filtered using granular activated carbon. The remedy applies to three areas of groundwater contamination in the northern portion of the site: a large area called "Area A" located west of the airport, and two smaller areas, together referred to as "Area B," located north of the airport. Burr-Brown Corporation is addressing contamination cleanup in the eastern-most section of Area B and the Arizona Air National Guard is addressing the contamination cleanup in the western-most section. Burr-Brown Corporation completed its design of the groundwater extraction and treatment system in Area B in 1991 and began cleanup activities soon thereafter. The groundwater treatment system began operation in 1994. This 6,000 gallon-per-minute system provides municipal drinking water to about 50,000 Tucson citizens. The other potentially responsible parties, under EPA oversight, are designing the technical specifications for the groundwater pump and treat system for the remaining sections of "Area B" and "Area A."

Soils: In 1990, the potentially responsible parties, under EPA supervision, began an investigation to determine the type and extent of soil contamination on airport property. The investigation is scheduled to be completed in 1996, at which time measures will be recommended for soil cleanup.

Site Facts: In 1989, the EPA issued an Administrative Order to the parties potentially responsible for site contamination requiring them to clean up the groundwater and soil. In March 1990, a Consent Decree was signed between the EPA and Burr-Brown Corporation requiring Burr-Brown Corporation to clean up the eastern-most part of "Area B." In June 1991, a Consent Decree was approved for the cleanup of "Area A" by the potentially responsible parties.

### Environmental Progress

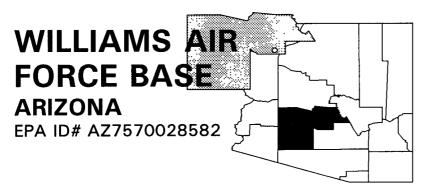


Contaminated drinking water supplies have been removed from service, and initial actions have been taken to control further contamination at the site by treating contaminated groundwater and remaining sludges from a concrete sump. Additional cleanup remedies, which are currently being designed or operating, will address remaining contamination areas and restore the site. Investigations into soil contamination are ongoing.

### Site Repository



City of Tucson Main Library, Government Reference Section, 101 North Stone Street, Tuscon, AZ 85701



### **EPA REGION 9**

Maricopa County Chandler

### **Site Description**

The 4,127-acre Williams Air Force Base (WAFB) site was commissioned as a flight training school in 1941. Contaminants from base activities include organic solvents and paint strippers, petroleum spills, metal plating wastes, hydraulic fluids, pesticides, and radiological wastes. Discharges and disposal at WAFB have resulted in soil and groundwater contamination. Thirteen subsites have been identified as potentially contaminated areas including: two fire training areas, a fuel storage area, two surface storm drainage areas, a hazardous material storage area, a landfill, a pesticide burial pit, a radiological disposal area, and four underground storage tanks. In 1992, several new subsites were discovered at the base which will be added to the investigation. Approximately 3,000 military personnel are stationed at WAFB, as well as 860 civilian employees. Many of the military personnel live off base in one of the surrounding towns. The total population living on base, including dependents, is approximately 2,700. On an average workday, the population of the base rises to over 5,000.

Site Responsibility: This site is being addressed through

Federal actions.

**NPL LISTING HISTORY** 

Proposed Date: 07/14/89 Final Date: 11/21/89

### **Threats and Contaminants**



Groundwater contains volatile organic compounds (VOCs) and nitrates. Heavy metals including lead, cadmium, nickel, and chromium have also been detected in groundwater, but their levels need to be confirmed. Soils contain various VOCs from past disposal practices. Accidental ingestion of contaminated soil and groundwater is a potential health hazard.

### Cleanup Approach

This site is being addressed in four stages: initial actions and three long-term remedial phases focusing on cleanup of the entire site, the Liquid Fuels Storage Area, and remaining contamination.

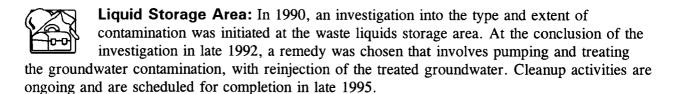
### **Response Action Status**

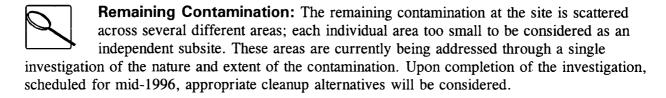


Initial Actions: A portion of the Southwest Drainage System was stabilized in 1988 by installing a soil, cement, and concrete cap on the ditch. In 1991, a small pesticide drum burial site was excavated and disposed of off site. Radiological materials were removed from another burial site and disposed of in late 1992. The removal of approximately 20 underground storage tanks at the liquid fuels storage area was conducted during late 1990 and early 1991, eliminating the source of liquid fuel leaks.



Entire Site: Under EPA oversight, the Air Force completed an investigation of the nature and extent of the contamination at all impacted areas of the base. Following the investigation, a remedy was chosen that includes installation of a permeable landfill cap over the landfill portion of the site. Design for the landfill cap is underway, and is scheduled to be completed in mid-1995.





Site Facts: Williams Air Force Base is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities.

### **Environmental Progress**



Cleaning the Southwest Drainage System, and removing pesticide drums, radiological materials, and underground storage tanks have reduced the potential for exposure to contaminated materials at the Williams Air Force Base site while studies are taking place and cleanup activities are being planned.

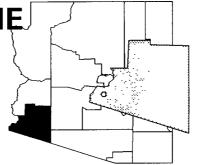
### Site Repository



Chandler Public Library, 75 East Commonwealth, Chandler, AZ 85225

# YUMA MARINE CORPS AIR STATION ARIZONA

EPA ID# AZ0971590062



### **EPA REGION 9**

Yuma County 2 miles from Yuma

### Site Description

Since the mid-1950s, large volumes of waste fuels and solvents from refueling and servicing of airplanes have been disposed of directly onto the ground or into unlined pits at the 3,000-acre Yuma Marine Corps Air Station site. In addition, combustible materials such as fuel oil and organic solvents have been deposited on the ground and burned during fire training exercises. The Navy has identified volatile organic compounds (VOCs) in soil at the site. Approximately 5,700 people live on site and usually obtain their drinking water from the Colorado River through an irrigation canal. However, during maintenance work on the canal that lasts for two weeks each year, drinking water comes from an on-station well. An additional 3,300 base employees use water from this well. The City of Yuma is 2 miles from the site, with a summer population of 60,000 and a winter population of 180,000. Groundwater supplies agricultural and industrial users. The city does not use groundwater for drinking water purposes.

Site Responsibility: This site is being addressed through

Federal actions.

**NPL LISTING HISTORY** 

Proposed Date: 06/24/88 Final Date: 02/22/90

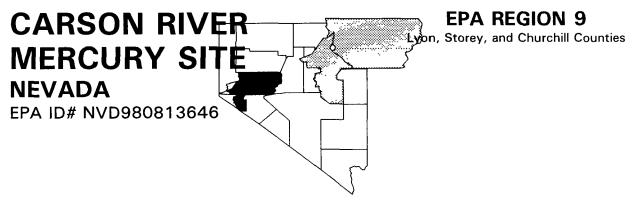
### **Threats and Contaminants**



Groundwater and soils on the site contain various VOCs and other contaminants including residues from tear gas, ammunition, napalm, paints, and photographic processing chemicals. Contaminants could pose a health risk to individuals if directly contacted or accidentally ingested. The Colorado River, which runs close to the site, could become polluted from the site contaminants.

Cleanup Approach				
This site is being addressed in two long-term remedial phases focusing on cleanup of the entire site and the groundwater.				
Response Action Status ————————————————————————————————————				
Groundwater: The Marine Corps began an investigation in 1991 to evaluate the nature and extent of the groundwater contamination. The results of the study will be used to evaluate different cleanup alternatives. The investigation is scheduled to be completed in late 1996.				
Soil: In 1991, the Marine Corps began investigating the surface and subsurface landfill areas that may be the sources of groundwater contamination. Once the investigation is completed, scheduled for 1997, alternative cleanup options will be identified and evaluated.				
Site Facts: Yuma Marine Corps Air Station is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. In January 1992, the EPA entered into a Federal Facility Agreement with the Manne Corps Air Station Yuma to initiate site investigations.				
Environmental Progress				
After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Yuma Marine Corps Air Station site while site studies and cleanup activities are being planned.				
Site Repository				

Not established.



### Site Description

The Carson River Mercury Site consists of a 50-mile stretch of the Carson River, beginning between Carson City and Dayton, Nevada, and extending downstream through the Lahontan Reservoir. The reservoir has been contaminated by mercury used in the amalgamation of gold and silver. In the late 1800s, large amounts of mercury were used during the milling of the Comstock Lode near Virginia City. Ore mined from the lode was transported to mill sites, where it was crushed and mixed with mercury to amalgamate the precious metals. The mills were located in Virginia City, Silver City, Gold Hill, Dayton, Sixmile Canyon, Gold Canyon, and adjacent to the Carson River between New Empire and Dayton. Mercury was primarily released from the mills in the Carson drainage as tailings and, less significantly, as air emissions. Approximately 7,500 tons of mercury were released into this region during the Comstock Lode. Today, mercury is distributed in the sediments and adjacent floodplain of the Carson River below New Empire, and the sediments of Lahontan Reservoir, Carson Lake, Stillwater Wildlife Refuge, and Indian Lakes. In addition, existing tailing piles with elevated mercury levels can be found at and around the historic millsites in Sixmile Canyon, as well as in soils at and around many historic millsites. The Nevada Division Environmental Protection (NDEP) sampled the water and sediments from the Carson River and found elevated levels of mercury that were attributed to the tailings piles in various areas of the Carson River. Approximately 1,400 people obtain drinking water from wells within 3 miles from the site, the nearest being within 2,000 feet of the site.

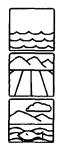
Site Responsibility: This site is being addressed through

Federal and State actions.

**NPL LISTING HISTORY** 

Proposed Date: 10/04/89 Final Date: 08/30/90

### **Threats and Contaminants**



Surface water, sediments, and soils at site areas are contaminated with mercury. Possible health threats include direct contact with or accidental ingestion of the contaminants. Additionally, runoff from contaminated site areas may spread contamination to other unaffected environments. The sediments of the Stillwater Wildlife Refuge are contaminated with mercury.

