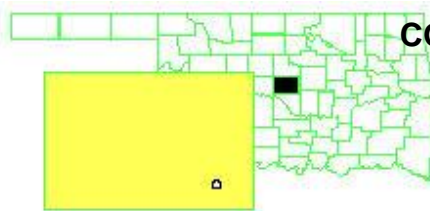


**TINKER AIR  
FORCE BASE  
(SOLDIER CREEK/  
BUILDING 3001)**

**OKLAHOMA  
EPA ID# OK1571724391  
Site ID: 0601510**



**EPA REGION 6  
CONGRESSIONAL DISTRICT  
04  
Oklahoma County**

**Other Names:  
USAF Tinker Air Force Base  
Contact: Michael Hebert –  
214/665-8315  
Updated: February 2012**

## **Background**

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Tinker AFB is major aircraft rebuilding/refurbishing facility located on the southeast edge of metropolitan area contiguous with Midwest City. The site covers approximately 5,000 acres and contains approximately 500 buildings. The site was included on the National Priorities List on July 22, 1987. The contaminants of concern at the Site are chlorinated solvents and hexavalent chromium. The site received two separate Records of Decision (ROD). August 16, 1990 a ROD was issued to address the Building 3001 Operable Unit's groundwater contamination, closure of PitQ-51, and remediation of underground storage tanks in the North Tank Area. The remedial action of the groundwater at Building 3001 reduced environmental risks posed to the Garber-Wellington Aquifer. On September 14, 1993 another ROD was issued for Soldier Creek, which includes monitoring and risk evaluations to ensure no risk to human health of the environmental develops in the creek. Based on Feasibility Studies conducted in August 2000 and public meetings on July 20, 2007; concerning the Soldier Creek Off-Base Groundwater Operable Unit Number 3 (OU3); the Air Force issued a ROD approved by EPA on January 9, 2008, for a No Action remedy for OU3. EPA approved a March 21, 2008 Air Force request to continue shutdown of Building 3001 Extraction System for one year.

## **Current Status**

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- The EPA and the Air Force are participating in technical exchange meetings with the Oklahoma State regulatory authority (ODEQ) to gain feedback and consensus on the Remedial Investigation, Risk Assessment and Feasibility Studies for the groundwater operable units.
- The Air Force completed the Remedial Action (RA) Report for the Soldier Creek Sediment and Surface Water Operable Unit Number 2 (OU2). EPA approved the OU2 RA Report on January 12, 2006. The Air Force will discontinue monitoring associated with the OU2 August 1993 Record of Decision.
- The Air Force completed revisions to the August 2000 Feasibility Study concerning the Soldier Creek Off-Base Groundwater Operable Unit Number 3. The Air Force issued a public notice on July 20, 2007, regarding a proposed plan for Operable Unit Number 3, which proposed a No Action remedy since all contaminant concentrations are below the Federal Maximum Contaminant Level's (MCL). A public meeting was held on August 14, 2007. The Air Force issued a Record of Decision, which was approved by EPA on January 9, 2008, for a No Action remedy for OU3.
- The Air Force requested on March 30, 2010 to continue shutdown of the Building 3001 Extraction System. EPA approved the Air Force request to continue shutdown of the Building 3001 Extraction System for one year (March 2011) on April 13, 2010.
- EPA and the Air Force completed a Five Year Review Report on September 27, 2007. The Five Year Review Report found that the remedies implemented at the site are protective of human health and the environment.
- The Air Force awarded a performance base contract on July 27, 2011. This contract has activities which address all the environment issues at the base.

## **Benefits**

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- Remediation of the groundwater at the Building 3001 Site will reduce environmental risks posed to the Garber-Wellington Aquifer.

- The GWTP provides roughly 200,000 gallons/day of water for industrial processes inside Building 3001.
- The remedy selected for the Soldier Creek Operable Unit includes monitoring and risk evaluations to ensure that no risk to human health or the environment develops in the creek.
- The risk assessment and remedial action objectives are based on continued control and use by the military. Additional risk assessments and remedial actions may need to be conducted to accommodate non-military future users.
- The site is currently being used for Air Force command operations.

## Site Assessment and Ranking

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<p>NPL LISTING HISTORY          Site HRS Score: 42.24          Proposed Date: 3/29/85          Final Date: 7/22/87          NPL Update: No. 3</p>
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- Removals:
- Removal of Underground Storage Tanks (7/85)
  - Removal of Contaminated Soil from on-base areas of Soldier Creek (11/85 and 12/99)
  - Removal of fuel product, VOCs and metals from groundwater
  - Plug and abandonment of two water supply wells
  - Removal and closure of various pits inside Building 3001

## Site Description

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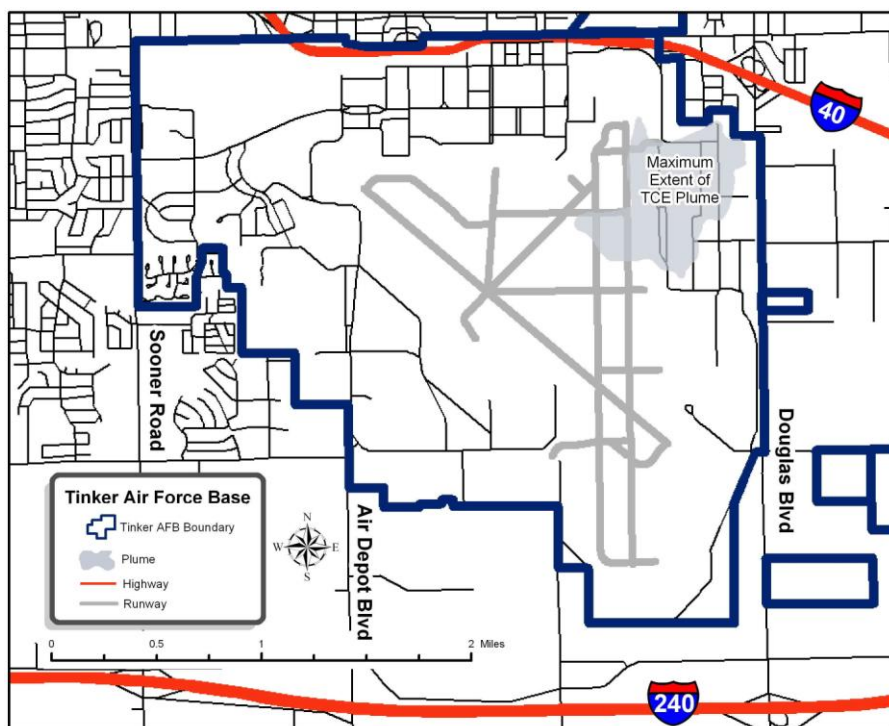
- Location:**
- Oklahoma City metropolitan area
  - Site is located on southeast edge of metropolitan area contiguous with Midwest City
- Population:**
- Oklahoma County 660,000.
- Setting:**
- Tinker AFB covers over 5,000 acres and contains approximately 500 buildings.
  - The NPL Site currently has four Operable Units.
  - The Building 3001 area of Tinker AFB is a major aircraft rebuilding/refurbishing facility, with a history of using large quantities of industrial solvents.
  - Building 3001 and Soldier Creek Operable Units defined the original boundaries of the Superfund Site. The Industrial Waste Treatment Plant (IWTP) and Soldier Creek Groundwater Operable Units were added to better investigate the contamination.
- Hydrology:**
- Tinker AFB is located in the recharge zone of the Garber-Wellington Aquifer.
  - Groundwater can be found at depths as shallow as 20 feet, but Base water supplies are drawn from depths of 270 + feet.

## Wastes and Volumes

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- The principal pollutants at the NPL Site are chlorinated solvents and hexavalent chromium.
- The shallow groundwater layers are contaminated with solvents and metals from past industrial activities.
- A Groundwater Treatment Plant (GWTP) that extracts contaminated groundwater from the Building 3001 Operable Unit has been in continuous operation since 1994.

## Site Map and Diagram



## The Remediation Process

### Site History:

- 1942 - Base activated with a primary past and current mission to serve as a worldwide repair depot for aircraft and associated equipment. This is a Government owned facility.
- On-Base disposal of industrial wastes occurred from 1942 until 1979 and Off-Base disposal since 1979.
- EPA and the Air Force signed a Federal Facilities Agreement (FFA) on 8 December 1988.
- The original NPL operable units were Building 3001 and the Soldier Creek Operable Units.
- Remedial Investigation/Feasibility Study (RI/FS) activities were performed at the Building 3001 Operable Unit from 1982 to 1986.
- The Building 3001 RI was completed 9/87; FS was completed 9/89.
- A Proposed Plan for the Building 3001 Operable Unit was published 5/90.
- The RI/FS for the Soldier Creek Operable Unit was completed. Additional groundwater contamination was found during that investigation that resulted in defining the Soldier Creek Groundwater Operable Unit and the Industrial Wastewater Treatment Plant (IWTP) Operable Unit.
- Soldier Creek Proposed Plan published 4/93.
- The Proposed Plan for the Soldier Creek Operable Unit was finalized; the Soldier Creek public comment period began 4/93; and the Record of Decision was signed on 14 September 1993.
- Soldier Creek Ecological Risk Assessment began 9/94.
- The IWTP and Soldier Creek Groundwater Operable Units RIs began 9/94.
- The Groundwater Treatment Plant (GWTP) for the Building 3001 Operable Unit began continuous operation in 1994. Long-term remedial action is on going.
- The Soldier Creek Ecological Risk Assessment, part of the Soldier Creek Surface and Sediment Remedy, was approved in 11/96.
- The Air Force submitted the Final Remedial Investigation and the Draft Final Risk Assessment for the Soldier Creek Groundwater and IWTP Ground Water Operable Units 7/98.
- \* The Final Risk Assessment for the Soldier Creek Groundwater and IWTP Groundwater Operable Units was finalized in 3/2000.

## Health Considerations:

- Tinker AFB uses 24 water supply wells from the Garber-Wellington Aquifer to supplement the Base water supply system.

## Record of Decision

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Signed: August 16, 1990 for Building 3001  
September 14, 1993 for Soldier Creek

- The Building 3001 Record of Decision (ROD) addresses the Building 3001 Operable Unit's groundwater contamination, closure of Pit Q-51, and remediation of underground storage tanks in the North Tank Area.

- Ground Water: Pump and treat with industrial reuse of treated water.
- North Tank Area: Remediation of soil using vapor extraction with thermal destruction and free-product removal of petroleum products.
- Pit No. Q-51: Remove liquids, clean and seal the pit with off-site disposal of contaminated pit material.

### Other Remedies Considered Reason Not Chosen

1. "No Action" Did not meet remedial objectives.
  2. Exterior Pumping. Did not remove contaminants with highest concentration.
  3. Discharge to Soldier Creek. Not accepted by OSDH and community.
- Building 3001 and Soldier Creek must meet Superfund requirements.
  - Water supply wells 18 and 19 west of Building 3001 were plugged on September 26, 1986.
  - Interagency Agreement with Air Force became effective May 21, 1989.
  - Pit Q51: Liquids removed and pit cleaned. Pit backfilled and capped September 18, 1990.
  - North Tank Area: recovery of fuel product began June 10, 1991.

## Community Involvement

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- Community Involvement Plan: Developed by Tinker AFB
- Open houses and workshops: 9/89 (RI); Agency for Toxic Substances and Disease Registry (ATSDR) 11/94; Restoration Advisory Board (RAB) 12/94, later extended to Community Advisory Board (CAB) 1/95; Installation Tour 4/95; 9/2003.
- Building 3001 Proposed Plan Fact Sheet: 3/90; Soldier Creek Proposed Plan Fact Sheet: 4/93
- Building 3001 Public Meeting: 4/90; Soldier Creek Public Meeting: 4/93
- Building 3001 ROD: 8/16/90; Soldier Creek ROD: 9/14/93
- Milestone Press Release: 1/91
- Site Repository: Midwest City Public Library, 8143 West Reno Avenue, Midwest City, OK 73110
- Applications for the Restoration Advisory Board were received in January 1995, selected in 2/95. First meeting was held 2/28/95.
- Community Advisory Board meetings are held semi-annually at the Midwest City Public Library.

## Technical Assistance Grant

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- Availability Notice: 6/2/89
- Letters of Intent (LOI) Received: 5/9/89, 7/6/89
  - 1) Environmental Pollution and Health Concerns Coalition (EPHCC) on 5/9/89
  - 2) Soldier Creek Citizens Environmental Group (SSCEG) on 7/6/89
- SSCEG Letter of Intent (LOI) was terminated on 2/1/90 for non-response.
- Draft Application Received: EPHCC submitted draft application for TAG on 11/27/89.

- Final Application Received: None - EPA comments on draft forwarded on 1/15/90; no final application ever received despite EPA outreach and assistance.
- Grant Award: N/A
- Current Status: TAG availability was re-advertised 3/29/91. No additional LOIs received to date, and no TAG was awarded.

## Contact Information

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- **Remedial Project Manager (EPA):** Michael A. Hebert, 214/665-8315, Mail Sta. 6SF-RL
- **State Contact:** Robert Replogle, 405/702-5118, ODEQ
- **Community Involvement (EPA):** Michael A. Hebert, 214/665-8315, Mail Sta. 6SF-RL
- **Attorney (EPA):** George Malone, 214/665-8030, Mail Sta. 6RC-S
- **EPA: Public Liaison,** Donn R. Walters, 214-665-6483, 1-800-533-3508
- **State Coordinator (EPA):** Kathy Gibson, 214/665-7196, Mail Sta. 6SF-VC