



# ERP Fact Sheet

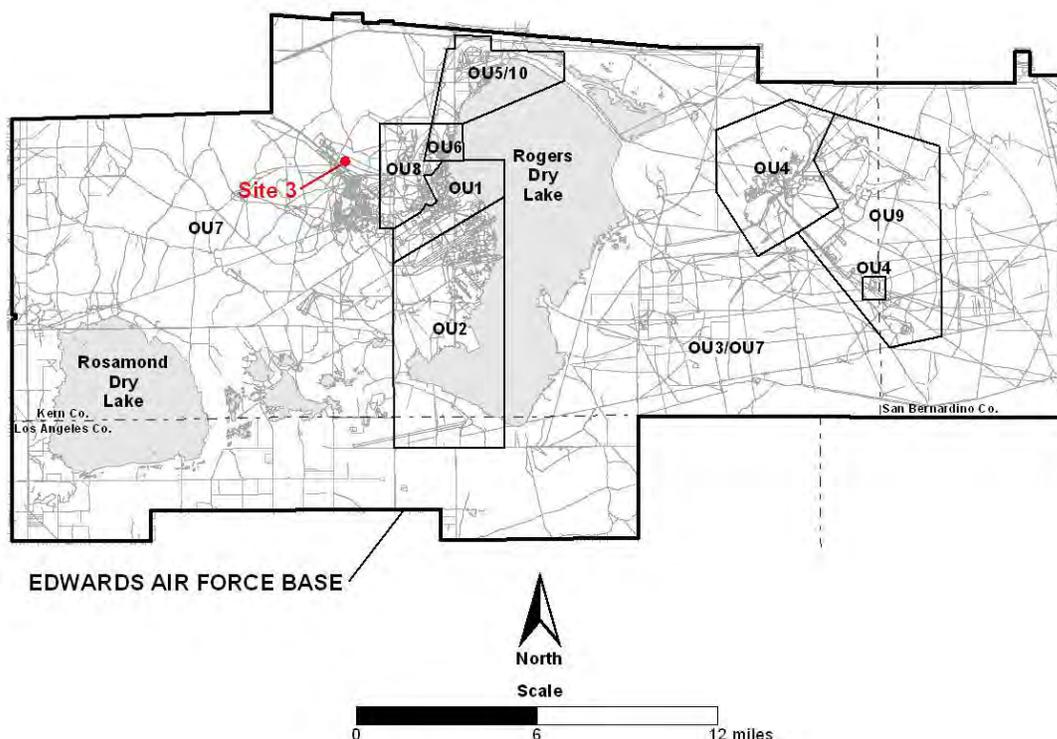
February 2010

**Site 3 Proposed  
Plan Public  
Comment Period**  
February 17 to  
April 2, 2010

**Base Availability  
Session:**  
March 9, 2010  
11 a.m. to 1 p.m.  
*Conference Room 1  
5 East Popson Ave.  
Edwards AFB, Calif.*

**Off-Base Public  
Availability Session:**  
March 9, 2010  
5 to 7 p.m.  
*Wanda Kirk Branch  
Library  
3611 Rosamond Blvd.  
Rosamond, Calif.*

## Public Comment Period Opens for Site 3, Edwards Main Base Inactive Landfill



Location of Site 3 within Edwards Air Force Base.

**A**ir Force officials are accepting public comment on proposed cleanup approaches to address an inactive landfill located in the northwest quarter of Edwards Air Force Base.

The proposed cleanup approaches can be viewed in detail in the *Proposed Plan for Site 3, Main Base Inactive Landfill, Operable Unit 7 (OU7)*. One of these four approaches will be chosen as the final cleanup remedy for the site.

The Air Force recommends a cleanup approach that includes waste consolidation, an evapotranspiration cover, stormwater

controls, land-use controls and monitored natural attenuation. This approach is referred to as Alternative 3 in the *Proposed Plan for Site 3*.

Located three miles southeast of the nearest base boundary, Site 3 operated from the mid-1960s until 1976, accepting household waste and construction debris. The Air Force investigated the site to address concerns that contamination from the landfill may have leaked into the soil, groundwater and air.

Low levels of organic compounds, metals and other elements were detected in the soil

For more information, contact:  
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samples collected above and below the buried waste. Although landfill gas (such as methane and carbon dioxide) is being generated within the landfill, analytical results indicate no significant migration of these gases beyond the perimeter of the landfill.

Based on the soil and landfill gas results, any possible risk for hypothetical future residents and industrial or construction workers falls within an acceptable range. However, the groundwater at the site exceeds drinking water standards called Maximum Contaminant Levels. The groundwater contamination is limited to 60 feet beyond the footprint of the landfill.

Due to the distances involved, Site 3 does not pose a current threat to any on- or off-base drinking water wells or create a threat to current on-base residents or workers. In addition, because of the low groundwater yield in the area, the groundwater at the site

is not used as a source of drinking water, nor is it likely to be developed as a drinking water source in the future.

Still, the Air Force is required to clean up the groundwater in accordance with the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980*.

Because the groundwater is not in direct contact with the landfill waste, the Air Force determined through computer models that stormwater was most likely flushing contamination into the groundwater at Site 3.

Stormwater cannot only penetrate the landfill cover to directly dissolve contaminants out of the waste, but it also can flush out contaminant leachates and condensates from the landfill. Leachates and condensates are liquids produced by the decomposition of landfill waste.

Based on the computer modeling,

base officials prefer a cleanup approach that will minimize the amount of stormwater entering the landfill and reduce the potential for contaminants in the landfill to enter the groundwater.

None of the proposed cleanup approaches involves any active treatment of the groundwater. Instead, officials will rely on natural attenuation — natural decomposition of the contaminants — to reduce the contamination over time. Both existing data and modeling indicate that the size of the groundwater plumes are stable (not increasing).

Alternative 1, or the No Action Alternative, is a standard baseline proposal that involves no further action. The fences, signs and gates already in place will remain, but will not be maintained. The cost for this alternative is \$0.

Alternative 2 involves land-use controls and monitored natural attenuation. Current fences, signs and gates will be maintained until the contamination naturally decomposes. The groundwater and landfill gas will be monitored to watch for migration. This remedy is estimated to cost approximately \$7.4 million, reaching groundwater cleanup goals within 139 years.

Alternatives 3 and 4 include the land-use controls and monitored natural attenuation outlined in Alternative 2. In addition, both cleanup approaches involve waste consolidation, an evapotranspiration (ET) cover and stormwater controls. An ET cover is a type of landfill cover that consists of a layer of soil covered by native plants. Water is held in the soil layer until it evaporates or is absorbed by the plant root systems, minimizing movement of water into the buried waste. This will reduce leachate formation and the potential for leachate from entering the



Aerial view of Site 3 showing groundwater contaminant plumes.



*Conceptual layout of Alternative 3 at Site 3.*

*A waste cell on the south side of Landfill Road will be relocated within the waste consolidation boundary. The land-use control boundaries reflect the consolidated landfill footprint.*

groundwater.

Alternative 3 calls for waste consolidation that would reduce the landfill footprint from 67 to 32.7 acres. The ET cover would be graded to promote runoff and minimize water infiltration and erosion. Stormwater controls, such as diversion ditches, would be built to divert surface water away from the landfill surface. The projected cost for Alternative 3 is approximately \$14.5 million, with a

cleanup goal of 84 years.

Alternative 4 differs slightly from Alternative 3 in that the waste consolidation is not as extensive. The landfill footprint would be reduced to only 56.2 acres. A passive soil gas venting system would also be installed to control landfill gases from migrating outside of the Site 3 area. The ET layer would be enhanced by a gravel geotextile layer to further reduce the potential for stormwater

infiltration into the landfill. The cost for this approach would be \$23 million, with a cleanup goal of 23 years.

The Air Force recommends Alternative 3 for several reasons:

- Alternative 3 will be protective of human health and the environment, would comply with federal and state environmental laws and would be cost effective.
- The groundwater will be cleaned

Low points in the Site 3 landfill cover currently allow ponding of stormwater which could seep into the buried debris.



ends. You may make your comments in person at the base or public availability session on March 9.

### More Information Available

The Air Force encourages the public to gain a more complete understanding of Site 3 and the clean-up activities that were conducted there. Documents used by the base to make decisions about cleanup alternatives at Site 3 are in the base's administrative record. To view the full administrative record, you must contact Gary Hatch.

To view a subset of decision documents, you may visit one of the Information Repository locations.

up by natural attenuation.

- Alternative 3 makes cost effective use of available cover materials, has a lower impact on base operations and energy use (in comparison to Alternative 4) and achieves groundwater cleanup within 84 years.
- The additional \$8.5 million in expense for Alternative 4 is not warranted because it is unlikely that the groundwater at Site 3 will ever be used for drinking water purposes.

### Proposed Plan and Public Comment Period

The public may obtain a copy of the *Proposed Plan for Site 3* online at <https://bsx.edwards.af.mil/>

*environmental*. Click on the folder labeled *Documents for Public Review* and click on the *Proposed Plan for Site 3*. Environmental Public Affairs can send you a copy if you contact Gary Hatch at:

**95 ABW/PAE**

**Attn: Gary Hatch**

**5 E. Popson Ave.**

**Edwards AFB, CA 93524-8060**

**Phone: (661) 277-1454**

**Fax: (661) 277-6145**

**E-mail: [95abw.pae@edwards.af.mil](mailto:95abw.pae@edwards.af.mil)**

The public may also view a copy at one of the local libraries listed in the Information Repository box to the right.

Please submit your comments before the public comment period

### Information Repositories

Edwards AFB Library  
5 W. Yeager Blvd.  
Edwards AFB, Calif.  
(661) 275-2665

Kern County Public Library  
Wanda Kirk Branch  
3611 Rosamond Blvd.  
Rosamond, Calif.  
(661) 256-3236

Los Angeles County Public Library  
601 W. Lancaster Blvd.  
Lancaster, Calif.  
(661) 948-5029

### To Make a Comment About the Proposed Cleanup Approaches for Site 3

Comments can be submitted at the base or public availability session on March 9, or by mail, e-mail or fax. Send comments to Gary Hatch at 5 E. Popson Ave., Edwards AFB, CA 93524-8060. Mr. Hatch can also be reached by phone at (661) 277-1454, fax (661) 277-6145 and e-mail [95abw.pae@edwards.af.mil](mailto:95abw.pae@edwards.af.mil). Comments must be received no later than April 2.

You can obtain a copy of the *Proposed Plan for Site 3* at the Information Repositories listed above or online at <http://bsx.edwards.af.mil/environmental/> (Documents for Public Review).

