

## **NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

National Environmental Policy Act; Finding of No Significant Impact (FONSI)

### **AGENCY:**

National Aeronautics and Space Administration (NASA)  
White Sands Test Facility  
Las Cruces, New Mexico

### **ACTION:**

Fabrication and operation of a mid-plume groundwater remediation system including extraction wells, above ground and sub-grade piping, roads, powerlines, and a possible pre-treatment facility.

### **SUMMARY:**

Based on the Mid-Plume Constriction Area Remediation Project Environmental Assessment, an Environmental Impact Statement is not required.

### **DATE:**

January 18, 2002

### **RESPONSIBLE OFFICIAL:**

Joseph Fries  
Manager  
NASA White Sands Test Facility

### **ADDRESS:**

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### **FOR FURTHER INFORMATION CONTACT:**

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### **BACKGROUND AND DESCRIPTION OF PROPOSED ACTION:**

The NASA White Sands Test Facility (WSTF) intends to install a series of four extraction wells, above ground and sub-grade piping, electrical supply facilities, access roads, and a possible pre-treatment substation in the mid-plume constriction area (MPCA) on NASA, Bureau of Land Management (BLM), and State of New Mexico (NM) land adjacent to the NASA White Sands Test Facility (WSTF). This proposed MPCA remediation project would effectively remove contaminant mass at the mid-plume location, isolate the plume-front area from upgradient source area contaminants, intercept and mitigate westward contaminant transport, contain the northwest trending contaminant lobe, and minimize ecological and human health risks to potential receptors. The system is anticipated to be operational by Fall 2004. Contaminant treatment standards for the

injected water have been developed following standards and guidelines from Federal and State regulatory sources. WSTF is located approximately 16 miles northeast of Las Cruces, New Mexico. The proposed project's location is in Sections 33 and 34 of T20S, R3E, and Sections 3, 4, and 5 of T21S, R3E.

**ALTERNATIVES CONSIDERED:**

NASA has considered the alternatives of full-scale groundwater remediation and no-action. At this time, full-scale remediation is not viable due to regulatory issues concerning plume-front contaminant migration, the extensive groundwater contamination plume boundaries, and hydrogeological concerns regarding remediation in fractured bedrock. The no-action alternative is not viable because it would not isolate source area contamination from the plume-front area, contaminant mass would not be remediated, the plume would continue to migrate through the MPCA, and the northwest trending contaminant lobe would not be abated. The Environmental Assessment (EA) provides information concerning each alternative.

**POTENTIAL ENVIRONMENTAL EFFECTS:**

Environmental aspects were examined pertaining to the following areas: land use, energy, groundwater quality, biological resources, cultural resources, noise, air, and geology and soils. The following section summarizes the conclusions for relevant environmental issues:

**Land use** - Additional wells, well pads, roads, above ground and sub-grade piping, and powerlines with poles would be needed to support this proposal. Using existing facilities where applicable would minimize these actions. After construction, any disturbed land that will not be used on a regular basis would be reseeded according to suggestions from the BLM.

**Energy** – The MPCA extraction wells and pretreatment remediation system (if necessary) would not increase the energy requirements that were previously estimated for the operation of the plume-front remediation project. The previously published Plume-Front Remediation System EA included the future energy requirements of installing and connecting an MPCA remediation system to the plume-front system. The Plume-Front Remediation EA estimated a site-wide annual energy increase of approximately 8,900,000 kilowatt-hours at an estimated cost of \$500,000 for the operation of both the plume-front and MPCA remediation systems.

**Groundwater Quality** - Groundwater quality at the project area would be significantly enhanced. The MPCA remediation project would effectively remove contaminant mass at the mid-plume location, isolate the plume-front area from upgradient source area contaminant, intercept and mitigate westward contaminant transport, contain the northwest trending contaminant lobe, and minimize ecological and human health risks to potential receptors.

**Biological resources** - The proposed project area has no habitat critical to the survival or reproduction of any listed species of plant or animal. This was observed during a threatened and endangered species survey. Additionally, there are no areas nearby that are considered highly sensitive or moderately sensitive that could be affected by the proposed action. However, wells, well pads, roads, pipes, and powerlines with poles would be needed to support this proposal. Using existing facilities in all applicable instances would minimize these actions.

**Cultural resources** - During the implementation phase, there is a possibility of unearthing archeological resources. An archeological survey has been completed for the affected area. If any undocumented or previously undiscovered archeological site were uncovered during construction, site construction would cease until historic preservation issues are resolved. No known archeological sites would be endangered or disturbed by the proposed project.

**Noise** - Construction activities are expected to be completed intermittently over a one year period. An additional four extraction wells would be drilled, each lasting approximately 10 days. Ecological impacts from well installation activities, remedial system construction, increased vehicular traffic, and system operation are expected to be negligible.

**Air** - Environmental impacts to air quality will be minimal. The NMED Air Quality Bureau does not regulate emissions from remediation activities and the emission quantities from air stripping activities are well below RCRA-related permit thresholds (Subparts AA, BB, and CC).

**Geology and soils** - A minor concern exists with an increase of wind or water erosion of soils during the construction phase. This is unlikely to transform the topographic conditions within the proposed area.

**PUBLIC COMMENT:**

An Environmental Assessment that supports the Finding of No Significant Impact is available for public review at the Branigan Library (200 East Picacho Avenue, Las Cruces, NM; Reference Desk). A public meeting is scheduled for Friday, January 25, 2002, from 4:00 p.m. to 6:00 p.m. in the Dresp Room of the Branigan Library. All comments are invited for consideration by the NASA Environmental Program Manager within 30 calendar days of this notice. Address all correspondence to:

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