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Environmental Cleanup REVIEW 3

The National Aeronautics and Space Administration's (NASA's) Jet Propulsion Laboratory (JPL) is continuing to move forward in the "Superfund" process. This fact sheet describes the work that has been completed thus far, as well as what will happen in the near future.

The Superfund Process

In October 1992, JPL was placed on the U.S. Environmental Protection Agency's (EPA's) National Priorities List, a list of the most serious, uncontrolled or abandoned hazardous waste sites that require remedial response under the Comprehensive Environmental Response, Compensation and Liability Act. In popular language, JPL became a "Superfund site."

In the Environmental Cleanup Review Fact Sheet No. 2, dated April 1993, NASA/JPL described the Superfund cleanup process in detail. This process consists of a preliminary site assessment; inspecting and scoring the site to determine if it should be on the national list; a remedial investigation/ feasibility study, and finally, implementing a remedy for the site.

Currently, NASA/JPL is in the remedial investigation/feasibility study phase of the cleanup process. During this phase, an evaluation of how to execute the project is made. This evaluation looks at breaking up the work into smaller portions to allow better project management and to move the project ahead more efficiently.

NASA/JPL, with EPA and state agencies, has reviewed the cleanup project and agreed that it could be broken down into three parts, called "operable units." The first operable unit deals with the groundwater contamination directly under the JPL site and what may be in the Arroyo Seco directly to the east of JPL. The second operable unit deals with an investigation of soil to locate the possible contaminant sources and define the horizontal and vertical extent of contamination. The third operable unit deals with potential groundwater contamination to the east of the Arroyo Seco and south and west of JPL.

Cleanup Plans

Both on- and off-site groundwater and on-site soils will be investigated as NASA/JPL progresses through the Superfund process. Detailed work plans were generated and approved by the regulatory agencies. These plans will be made available to the public through information repositories (see page 2 of this fact sheet for their locations), and public meetings will be held for community input.

The plans that are required for the remedial investigation/ feasibility study phase are described in the following sections.

Remedial Investigation/Feasibility Study Work Plan. This plan, designed to provide an overall view of the cleanup project, describes the site setting and the conceptual model for soil–groundwater interaction and identifies the tasks needed to complete the study.

Field Sampling and Analysis Plan. This plan, which is developed for each operable unit, describes the actual sampling and analysis procedures to be used. The plan identifies why a sample is taken at a specific location, why certain analyses are needed, how samples are to be collected and the exact methods used to analyze a sample.

Quality Assurance Project Plan. This plan establishes the quality control and quality assurance requirements for the cleanup project. Following the plan assures that the data are of high quality and form a reliable basis for making decisions regarding the project.

Health and Safety Plan. This plan lays out the requirements for protecting the health and safety of the people doing the field work. Site security, required protective equipment (if any) and emergency procedures are described.

Community Relations Plan. This plan establishes the mechanisms for informing the surrounding community about the project.

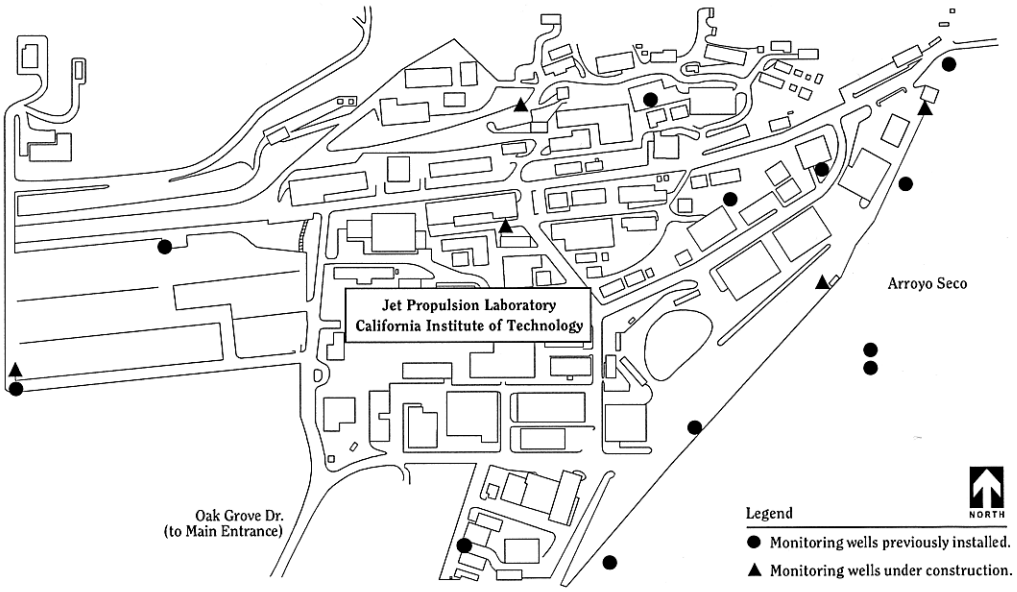
Currently, these plans are being reviewed by EPA and state agencies. NASA/JPL will respond to the review comments when they are made available. Once the plans are finalized, field work can begin on the first operable unit of the cleanup project.

Monitoring Wells at JPL

In the remedial investigation/feasibility study work plan and the field sampling and analysis plan for the first operable unit, NASA/JPL has described a way to better understand the groundwater characteristics beneath the JPL site and in the Arroyo Seco to the east of JPL.

The NASA/JPL plans call for the installation of five additional monitoring wells (see the map on page 2). These wells have been carefully placed so that, in combination with previously installed wells,

The Jet Propulsion Laboratory occupies 176 acres in the foothills of the San Gabriel Mountains north of Pasadena and east of La Cañada Flintridge.



they would provide the greatest amount of information on the groundwater around JPL (gradient, flow direction, etc.).

Work on these wells began in February 1994. The entire construction, sampling, analyses and evaluation of results will take about 16 months.

The Jet Propulsion Laboratory

JPL is a 176-acre research complex situated on the border between northwestern Pasadena and La Cañada Flintridge. The facility is owned by NASA. The California Institute of Technology is NASA's prime contractor at JPL.

As NASA's lead center for the exploration of the solar system with robotic spacecraft, JPL has managed missions to the Moon and all the planets of the solar system except Pluto. It has also carried out spacecraft missions in astrophysics and Earth observation and has built sophisticated instruments — flown on satellites managed by other NASA centers and international space agencies — to study global climate change and ozone layer depletion. In addition, JPL carries out work for other Federal sponsors and conducts advanced technology studies in robotics, microelectronics and high-performance computing.

Community Relations

As the cleanup effort progresses, NASA/JPL will keep JPL's neighbors informed of developments and will solicit community feedback. The local community will be asked to comment on all cleanup alternatives that are under consideration before a specific remedy is selected for implementation. As part of this community relations effort, information repositories containing copies of documents related to the cleanup will be maintained and updated at the following local sites.

- *Pasadena Central Library*
  285 East Walnut Street
  Pasadena
- *La Cañada Flintridge Public Library*
  4545 West Oakwood Avenue
  La Cañada Flintridge
- *Altadena Public Library*
  600 East Mariposa Street
  Altadena

For more information on the cleanup effort and community involvement, please call or write the Public Services Office, Mail Stop 186-113, Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena CA 91109-8099; telephone (818) 354-0112.

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