JPL 8.5 X 14 FINAL NEWS w/osignature10-2006 11/3/06 8:32 AM Page 1

National Aeronautics and Space Administration

GROUNDWATER CLEANUP UPDATE

An update on groundwater cleanup activities at the Jet Propulsion Laboratory
Novedades acerca de las actividades de limpieza del agua subterránea en el Jet Propulsion Laboratory

Bilingual Newsletter November 2006
Boletín bilingüe noviembre de 2006

November 2006

Dear NASA friends and neighbors

NASA and the City of Pasadena continue the processes related to locating and permitting a new treatment plant to clean off-site groundwater. We look forward to the siting of the plant and an anticipated 2007 start of construction. In the meantime, I want to update you on the progress we have made in keeping NASA's commitment to clean up chemicals in area groundwater. In short, NASA is continuing with and making good progress on the cleanup, as the accompanying stories in this Update will show. NASA-funded groundwater treatment plants are removing hundreds of pounds of unwanted chemicals from groundwater at the "source area" on the Jet Propulsion Laboratory and from two Lincoln Avenue Water Company drinking water wells in Altadena.

"When the new NASA-funded Pasadena treatment plant begins operation at roughly the center of the so-called plume of groundwater chemicals," NASA Remedial Cleanup Project Manager Steve Slaten said recently, "we'll be aggressively addressing the entire cleanup area with a holistic approach capable of cleaning up all of the groundwater."

On the Jet Propulsion Laboratory site, where the highest levels of chemicals have been found, groundwater cleanup has been underway for more than a year. Shortly, our on-site treatment plant will be expanded, allowing a doubling of the current water treatment rate.

Finally, the removal of volatile organic chemicals from the soil, using a process called "soil vapor extraction," has worked so well that the cleanup of soils is nearing completion.

Separately, as a result of comments from area residents at our recent public meeting, the City of Pasadena has initiated cleanup and maintenance activity at its Windsor Reservoir site, landscaping the street side of the site and removing weeds and debris.

More details about the NASA cleanup are available on our Website at: http://jplwater.nasa.gov. You may also visit our NASA Information Repositories at the Pasadena Central Library, the La Cañada Flintridge Public Library, or the Altadena Public Library. Finally, if you have questions to ask or comments to make, or if you need further information about our cleanup, please give me a call or drop me a note, either through e-mail at mfellows@nasa.gov or by regular mail to: Merrilee Fellows, NASA Manager for Community Involvement, NASA Management Office, 180-801, Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, CA 91109. You also may call me at (818) 393-0754.

Best Wishes for a Happy Holiday Season,

Sincerely,

Merrilee Fellows

Merrilee Fellows
NASA Manager for Community Involvement for Groundwater Cleanup

Spanish summaries of stories in this newsletter can be found on back page

Si desea leer historias en español, diríjase a la página dos de este boletín

NASA CLEANUP IS UNDERWAY IN EARNEST

As of the end of September 2006, NASA project engineers report that a total of 750 pounds of the chemical perchlorate, 421 pounds of carbon tetrachloride, and 683 pounds of trichloroethylene (TCE), the latter two classified as volatile organic compounds (VOCs), had been removed from both soil and groundwater beneath the Jet Propulsion Laboratory (JPL) and from groundwater beneath areas adjacent to JPL.

Following are cleanup project specifics at the three units that NASA established when site studies and cleanup activities began at the Laboratory many years ago:

On-Facility Groundwater Treatment Highlights

Some 578 pounds of chemicals have been removed from on-facility groundwater in 19 months.

NASA's on-site groundwater treatment plant began operating in February 2005. Through September 2006 the system had removed approximately 560 pounds of perchlorate, 15 pounds of carbon tetrachloride, and three pounds of trichloroethylene (TCE). The on-site groundwater treatment system extracts water from the aquifer beneath JPL, removes perchlorate and VOCs from the water, and re-injects clean water into the aquifer a few hundred feet "up-gradient" from where it was extracted.

In the vicinity of the treatment plant's extraction and injection wells, groundwater chemical levels in the monitoring wells are much lower than when the project started. Since the first phase began, the levels as detected in the extraction wells, known as the "influent levels," have been reduced by about two-thirds. While this shows that clean water is making its way to portions of the source area, levels to the west of the wells remain at higher levels. It is this area to the west of the treatment plant that will be targeted in the proposed expansion.

Concentrations of chemicals in on-site groundwater have been reduced.

As noted elsewhere in this Update, the on-site system has been so successful that NASA plans to bring it to full capacity, doubling its treatment rate. Plans were announced to that effect in late 2005; a public meeting on the proposal was held in late 2005, comments were solicited, and a NASA "Record of Decision" for plant expansion is now being evaluated by the federal and state regulators with which NASA is required to work under the "Superfund" law. After regulator approval, construction on the expansion would begin in early 2007.

NASA plans a 2007 expansion of its on-site groundwater treatment plant.

On-Facility Soil Treatment Highlights

Some 260 pounds of VOCs have been removed from the soil above the groundwater at JPL, and soil cleanup is now nearing completion.

Since treatment began in February 1998, 230 pounds of carbon tetrachloride and 30 pounds of TCE have been removed from JPL soils. Removal of these chemicals from the soil eliminates the possibility of their further affecting the groundwater beneath and beyond JPL. The soil cleanup effort has been so successful that this action is completed, according to Remedial Project Manager Steve Slaten. A "remedial action report" is now being prepared for approval by regulatory agencies to allow NASA to consider soil cleanup activities completed and to dismantle equipment that accomplished the soil cleanup activities.

Continued on Back Page

JPL 8.5 X 14 FINAL NEWS w/osignature10-2006 11/3/06 8:32 AM Page 2

NASA Cleanup Continued from Front

Off-Facility Groundwater Treatment Highlights

NASA groundwater treatment partnerships with Lincoln Avenue Water Company and the City of Pasadena are working well.

An agreement reached early this year between NASA and the City of Pasadena has led to a plan proposed by NASA to fund a groundwater treatment plant in Northwest Pasadena on vacant city property adjacent to the Windsor Reservoir to treat perchlorate and VOCs. This plant eventually would allow the City to re-open four closed drinking water wells near the Arroyo. NASA's proposed plan for that treatment plant was the subject of an 80-day public comment period earlier this year, a formal public meeting, an informal meeting, and a small meeting for residents in the immediate area of the proposed site. NASA is currently evaluating comments on that plan and will issue a "Record of Decision" that will be evaluated by federal and state regulatory agencies. NASA anticipates that the Record of Decision will be issued in early 2007. A city permitting review related to siting of the treatment plant also will occur in 2007.

As early as 1990, NASA-funded treatment plants were removing VOCs from groundwater in Northwest Pasadena and Altadena, and since July 2004, a NASA-funded treatment plant has been removing both perchlorate and VOCs from groundwater from two Lincoln Avenue Water Company (LAWC) drinking water wells in Altadena.

Some 190 lbs of perchlorate have been removed from the water treated at the LAWC treatment plant since July 2004, and since 1990 a total of 826 pounds of VOCs have been removed from groundwater deep beneath both Pasadena and Altadena. ■

COMMUNITY INVOLVEMENT PLAN UPDATE PUBLISHED

A 2006 update to the NASA environmental cleanup project Community Involvement Plan (CIP) has been published and is posted to the cleanup Website, http://jplwater.nasa.gov.

The update is based on experience gained throughout 2004-2005 in four public meetings, a meeting with Jet Propulsion Laboratory employees, a Community Information Session, and from information contained in a series of interviews with a wide range of interested parties.

The CIP update describes some of the techniques and approaches NASA has used during the last two years to inform and involve the public and identifies ways in which NASA will continue to support cleanup efforts at and in the vicinity of JPL.

NASA Groundwater Cleanup Manager for Community Involvement Merrilee Fellows noted that "We are committed to promoting communication between local residents and NASA, and active public involvement is crucial to the success of our projects." ■

Español

Estimados amigos de la NASA y vecinos de JPL

La NASA y la Ciudad de Pasadena continúan con el proceso de localizar y obtener los permisos necesarios para construir una nueva planta de tratamiento que limpiará el agua subterránea en el Noroeste de Pasadena. Esperamos comenzar la construcción de la planta en 2007.

Mientras tanto, les quiero dar novedades de lo que hemos hecho para mantener el compromiso de la NASA de limpiar los compuestos químicos del agua subterránea en el área.

Usted puede encontrar más detalles de la limpieza en nuestra página web: http://jplwater.nasa.gov, o en los lugares de información pública creados por la NASA en las bibliotecas de Pasadena Central, La Cañada Flintridge y Altadena

Finalmente, si usted tiene preguntas o comentarios, o si necesita más información acerca de la limpieza, por favor llame a Gabriel Romero al (818) 354-8709. Si desea, puede enviar un correo electrónico a mfellows@nasa.gov o escribir a Merrilee Fellows, NASA Manager for Comunity Involvement, NASA Management Office, 180-801, Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, CA 91109.

Mis mejores deseos para unas felices fiestas,

Sinceramente,

Merrilee Fellows

Merrilee Fellows
NASA Manager for Community Involvement
NASA's Groundwater Cleanup at JPL

Novedades

Los ingenieros de la NASA informan que desde agosto de 2006, se han removido cientos de libras de compuestos químicos no deseados de la tierra y del agua subterránea debajo del terreno del Jet Propulsion Lab (JPL), y del agua subterránea debajo de áreas adjacentes a JPL.

Resumen:

Tratamiento del agua subterránea en JPL
En 19 meses se han removido unas 578 libras de compuestos químicos. La NASA planea expandir su planta de tratamiento de agua subterránea en JPL en 2007. Ésto duplicaría la velocidad del tratamiento.

Tratamiento del suelo en JPL
Se han removido unas 260 libras de compuestos orgánicos volátiles del suelo en JPL. La NASA casi termina con este proceso de limpieza que continuará protegiendo el agua subterránea a grandes profundidades debajo de JPL.

Tratamiento del agua subterránea fuera de JPL
Desde julio de 2004, se han removido unas 190 libras de perclorato del agua tratada. Desde 1990 se han removido unas 826 libras de compuestos orgánicos volátiles del agua subterránea debajo de Pasadena y Altadena.

Si fuera aprobada, la NASA financiaría una planta de tratamiento en una propiedad vacante perteneciente a la ciudad y adjacente a Windsor Reservoir. Esta planta ayudaría a la ciudad a reabrir cuatro pozos de agua potable que están cerrados en la actualidad.■

VISIT OUR WEBSITE AT http://jplwater.nasa.gov
VISITE NUESTRA PÁGINA WEB

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NASA GROUNDWATER CLEANUP

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