

Silva, Diane C CIV NAVFAC SW

Subject: FW: SITE 26 PILOT TEST

-----Original Message-----

From: Crosby, Julie A CIV NAVFAC SW, PACO
Sent: Wednesday, February 11, 2009 7:31
To: Silva, Diane C CIV NAVFAC SW
Subject: FW: SITE 26 PILOT TEST

Hi Diane

How do I go about getting an e-mail put into the admin record for Moffett? The e-mail below is fairly important b/c it documents NASA's comments regarding one of our Work Plans. Should I make a hardcopy of this and send in Guard Mail along with pertinent info?

Thanks!!!
Julie

-----Original Message-----

From: Donald Chuck [mailto:dmchuck@comcast.net]
Sent: Tuesday, February 10, 2009 22:05
To: Crosby, Julie A CIV NAVFAC SW, PACO
Cc: 'Clarke, Ann H. (ARC-QE)'; 'Alana Lee'; 'Elizabeth Wells'; Lind, Angela Y CIV NAVFAC SW, FISD; Hill, John M CIV OASN (I&E) BRAC PMO West
Subject: SITE 26 PILOT TEST

Julie,

As we have discussed in our previous meeting, proposed location for the phytoremediation pilot test as given in the Navy's Draft Work Plan is not compatible with NASA's operations. NASA has the following concerns with the proposed project:

- The trees pose hazards to aircraft operations. The location of the test is next to an active aircraft ramp and taxiway. The area is used by cargo aircraft delivering and picking up satellites and other material. The area is also used by California Air National Guard aircraft. The trees will become a source of foreign object damage (FOD) requiring additional maintenance to keep aircraft safe.
- The trees will be an attraction to birds of prey which will have a detrimental effect on species of concern at Moffett, in particular the burrowing owl. In addition, the area is frequently occupied by burrowing owls since the site is flat and clear which is preferred by the owls.
- Additional trees may also attract additional birds increasing the bird strike hazard for the airfield. While there are trees already at NASA, the trees will be a significant increase in trees near the hangars and airfields.
- The trees must be native species.
- The location is also in an area that NASA is considering for further development.

NASA also has additional comments on the proposed phytoremediation pilot test.

In Section 3.2 of the WP, fourth paragraph, the stated goals of the pilot test are "to assess the effectiveness of CE removal and groundwater hydraulic control." Additionally, in the fifth paragraph, the WP states that "Because of the relatively short duration of the test, it is unlikely that the trees will be developed sufficiently from young

plantings to substantially penetrate and affect groundwater." Based on the preceding sentence, it does not appear that this pilot test will be able to meet the stated goals of the test.

Since the trees are not expected to reach groundwater in the test period, the Navy is proposing to use raw groundwater from one of the EATS wells to irrigate the trees. NASA sees problems with this approach.

- Review of chemical data, only two of the extraction wells are near "significant" concentrations of TCE. One of the wells, EXW-1, will be unsuitable since concentrations there will be affected by the abiotic/biotic pilot test. This leaves only EXW-2 being near high concentrations.

- It is likely that the proposed irrigation system may cause VOCs to volatilize during transport from the extraction well to the tree. Pumping action in the extraction well will add turbulence to the water introducing the opportunity for volatilization to occur. The discharge of that water into the storage tank adds additional turbulence and volatilization for the VOCs. Finally, the bubblers providing the water to the trees can have similar effects. It is likely then that concentrations sufficient to test the ability of the trees to take in VOCs will not be applied to the trees by irrigation.

- Using irrigation for the trees will eliminate any data that will help demonstrate the effectiveness of the trees to provide hydraulic control.

- As proposed in Section 6.6 of the WP, one tree of each species will be sampled and monitored for baseline and VOC uptake. Since the Navy is only planning to sample 3 trees, NASA does not see the need to plant the number of the trees proposed.

NASA suggests that the Navy reevaluate the proposed phytoremediation pilot test not only for alternative locations, but the test approach itself.

One a related matter to the east-side aquifer, the Record of Decision (ROD) prescribed pump and treat for the remediation of the groundwater. The Navy has not operated the system since 2003. The system was taken off-line to perform tests on the effectiveness of EATS. That testing was completed by 2005. At that point, the system should have been restarted to meet the requirements of the ROD. This means that the Navy has been out of compliance for about four years. NASA expects the Navy to bring the system back into compliance until the remediation in the ROD has been changed.

DRAFT
WORK PLAN ABIOTIC / BIOTIC TREATMENT AND
PHYTOREMEDIATION TREATABILITY STUDY

DATED 18 DECEMBER 2008

THIS RECORD IS ENTERED IN THE DATABASE AND FILED
AS

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