

MEMORANDUM

TO: Lenny Siegel
FROM: Peter Strauss
DATE: February 10, 2015
SUBJ: Planetary Ventures Lease—Environmental Issues

From an environmental perspective, I believe that the lease is a positive development. Besides the renovation of Hangar One, which aims to be consistent with the National Historic Preservation Act (NHPA), other positive aspects of the lease are:

- Inclusion of wildlife management provisions and a Burrowing Owl Preserve.
- The possibility that Planetary Ventures, a wholly owned Google subsidiary, will be proactive in mitigating a pathway for vapor intrusion beneath Hangar One, at its own expense to avoid delays.
- Planetary Ventures may voluntarily elect to undertake remediation of existing environmental conditions, even though it did not cause the problems.
- The conceptual development plan recognizes the cultural heritage of the Shenandoah Historical District, and it promises to enhance and re-use assets in a manner consistent with NHPA.
- Along with the lease, an Environmental Issues Management Plan (EIMP) was developed for the leasehold. It will be the environmental management plan that Planetary Ventures will follow in carrying out the lease. Although this document is not yet public, EPA and the Regional Board have reviewed it. EPA has informed me that it covers a wide range of issues and is forward thinking.

A major *potential* flaw in the document is that it does not call for a National Environmental Policy Act (NEPA) review of the cumulative environmental effects of the lease. It views this action (i.e., the lease) as a follow-up to the Environmental Impact Statement (EIS) that was prepared in 2002 for the NASA Ames Development Plan (NADP). The lease has a long duration (up to 96 years) and covers a wide range of construction and re-use projects, as well as operation of the airfield. I think it may qualify as a new *major federal action* that may have *significant* environmental impacts. The italicized words are criteria that require a thorough NEPA review. A thorough comparison of the proposals set forth in this lease as opposed to those that were set forth in the 2002 EIS is warranted to make a determination. This comparison is outside of the scope of my review.

Bona Fide Prospective Lessee Letters

During the course of development work at several buildings, Planetary Ventures seeks to absolve itself from responsibility for cleanup of previously contaminated soil and groundwater. It requires that U.S. EPA and the Bay Area Regional Water Quality Control Board write Bona Fide Prospective Lessee Letters satisfactory to the Lessee, Planetary Ventures, within six months of the effective date of the lease. ("Bona Fide Prospective Lessee Letters" means letters from EPA and the Water Board confirming that the Lessee has conducted all appropriate inquiry and outlining what the EPA and the Water Board, respectively, deem to be the "reasonable steps" Lessee must follow to maintain its Bona Fide Prospective Lessee status for liability purposes). If letters are not received, the Lessee may terminate its Lease. The agencies are in the process of drafting these letters, contingent upon the final Environmental Issues Management Plan (EIMP). EPA told me that these letters would probably be issued in January 2015.

Existing Environmental Conditions

The Landlord (i.e., NASA) retains its obligations to address Existing Environmental Conditions, including all of its obligations under the Environmental Agreements and the Federal Facilities Agreement (FFA) it is presently negotiating with the EPA and the Navy. None of those obligations shall become the responsibility of Planetary Ventures unless it chooses to accept them. ("Landlord acknowledges that the Tenant may elect to voluntarily undertake remediation of Existing Environmental Conditions, notwithstanding those conditions were caused by and are the responsibility of third parties.")

The lease, in Section 6(a) states:

Portions of the Property are underlain by a plume of contaminated groundwater that comprises two Superfund sites: the former Naval Air Station Moffett Field; and the Middlefield-Ellis-Whisman site. Tenant understands that the groundwater is contaminated with solvents and petroleum hydrocarbons. The EPA has identified responsible parties for the contamination which is the subject of these Superfund sites. Those parties include Landlord, Navy and the MEW Companies. In addition, the Navy is responsible for various other cleanup sites on the Premises, including Hangar One. Tenant hereby acknowledges receipt of the Environmental Reports. *It is not the intention of the Parties that this Lease allocate any liability for any Existing Environmental Conditions to Tenant* (emphasis added).

If any Hazardous Material is encountered, discovered, or identified during the term of the lease, including in the indoor air, soils, soil vapor, or groundwater,

[It] shall be presumptively concluded that such Hazardous Material was present at the Premises prior to the Commencement Date and that such Hazardous Material is an Existing Environmental Condition; Landlord may rebut such presumptive conclusion by proving by a preponderance of the evidence (with Landlord bearing the burden of proof) that the Hazardous Material was initially released on or after the Commencement Date. Tenant

will cooperate with Landlord, at no expense to Tenant, in determining the origin of any Hazardous Materials encountered.

Planetary Ventures agrees that it will not permit any use, storage, or other handling of any hazardous material that is not permitted. (This does not apply to any fuel farms that are currently installed or will be installed to serve the Airfield.) If any release of hazardous material occurs and Tenant is responsible, the Tenant will take remedial measures. Furthermore, should the Landlord give notice that the use, storage, or handling of any hazardous material does not comply with this Lease, the Tenant will correct it within ninety days.

Additionally, the Landlord will cooperate with the Tenant in its efforts to obtain indemnification from any of the potentially responsible parties, including an obligation to defend it if a dispute occurs.

Moffett Field Environmental Issues Management Plan (EIMP)

As a prelude to agreement, Planetary Ventures has prepared a Moffett Field Environmental Issues Management Plan (EIMP), which covers the entire leasehold. This draft report is not public, but has been commented on by EPA and the Water Board, and in the lease it is referred to as approved by EPA. EPA is comfortable with the content of the EIMP, and it was put together by EKI, the same consulting firm that was responsible for the 2005 EIMP for NASA Research Park. The EIMP will address Vapor Intrusion, as well as other environmental challenges. All work involved in this lease will be performed in a manner consistent with the EIMP. The EIMP can be amended from time to time at the request of the Tenant to reflect current development initiatives and constraints, subject to the approval of Landlord.

Planetary Ventures will work with NASA's Office of Environmental Services during site planning, and it will implement the guidelines and recommendations in the Environmental Issues Management Plan (EIMP) to ensure that none of the proposed construction, demolition, and infrastructure improvement projects would expose personnel to unacceptable levels of contaminated soil or groundwater. If the Remediation Project Manager (RPM) determines that there is a possible risk of exposure, the proposed design will be altered to prevent such exposure. If it is not feasible to avoid exposure, protective measures will be undertaken to minimize the risk of exposure as described in the EIMP. These measures include:

- Relocating treatment system components that would be affected by development
- Excavating contaminated soil during development
- Installing lined underground utility pipes or collars to prevent migration of contaminated groundwater
- Constructing vapor barriers or sub-slab ventilation to prevent vapor intrusion
- Retrofitting existing buildings to prevent vapor intrusion

MEW and NAVY Construction Coordination Agreements

Two (draft?) Construction Coordination Agreements have been attached to the

Lease: one is between NASA and the MEW Companies, and the second is between NASA and the Navy. They refer to all alterations, capital improvements, rehabilitation, and infrastructure on the leasehold. NASA, the MEW Companies, and the Navy entered into these Agreements to delineate the roles and responsibilities for managing contaminated soil and groundwater that is excavated during the project development and for the mitigation of vapor intrusion. Because NASA is ultimately responsible as the Landlord, Planetary Ventures is referred to as the Project Developer in these construction Agreements. It must comply with each of these agreements (if executed).

Planetary Ventures' redevelopment activities may include, but are not limited to, demolition, grading, trenching and other excavation work, as well as construction connected with the development of office, residential, educational, research and development, and other facilities. To ensure appropriate handling of potentially contaminated soil or groundwater during construction activities, the Landlord reserves the right to conduct environmental sampling during construction, and all environmental sampling will be performed under the Landlord's oversight.

Should Planetary Ventures determine that a remedial system well must be removed, Planetary Ventures will pay all costs of well sealing and replacement, as well as related costs. The MEW Companies and Navy agree to attempt to have the EPA RPM approve abandonment of such well(s) in lieu of replacement of such well(s). Furthermore, Planetary Ventures will pay any costs of relocation, replacement, modification, or repair of the remedial systems.

These Agreements apply only to geographical parts of Moffett Federal Airfield (MFA) that are or will be physically affected by the construction work. This area is designated as AR-1 and AR-3 in the Allocation Agreement reached earlier (1998). [Note that these areas are not designated in this Agreement. Alana Lee of EPA has informed me that AR-1 is MEW's area of responsibility for the MEW chemicals of concern, generally west and south of the Navy's Western Area Treatment System (WATS) area. It does not include the total petroleum hydrocarbons (TPH) or vadose-zone soil contamination or the Site 28 WATS area].

For example, if VOCs are determined to exist in saturated zone soils in AR-1, Planetary Ventures shall immediately notify the MEW Companies' representative. If any saturated zone soil in AR-1 contains "only those VOCs associated with the MEW plume" at concentrations exceeding EPA cleanup standards, the MEW Companies shall manage and dispose of these soils at their cost:

Vadose zone and saturated soils containing petroleum hydrocarbons (whether or not they also contain VOCs) will be transported by Planetary Ventures to a staging area and shall be managed by NASA, at the Navy's expense.

The lease also states, "If the groundwater from AR-1 contains TPH above 50 parts per billion ("ppb") (or such lower standard as may in the future be established by EPA), it will not be discharged to the Remedial System GWTS [Groundwater Treatment System]." Planetary Ventures is responsible for discharge of this

groundwater, and it “may be able to obtain permission from the City of Sunnyvale Waste Water Treatment Plant to discharge the water to the NASA sanitary sewer systems.” If the groundwater from AR-1 cannot be discharged to the sanitary sewer, Planetary Ventures will deliver it to the Navy’s Westside Aquifer Treatment System for treatment by the Navy.

If the groundwater from AR-1 contains TPH below 50 ppb (or such lower standard as may in the future be established by EPA) and contains VOCs that are identified as those associated with the MEW plume, the groundwater can be discharged to the Remedial System GWTS. Planetary Ventures will pay all costs associated with extraction, delivery and storage of groundwater prior to treatment at the GWTS. The MEW Companies will pay all costs of pumping the groundwater from the storage tanks and treating it through the Remedial System GWTS.

Management and Abatement Plans

Prior to commencement of any renovation, demolition, or construction work, the Planetary Ventures will develop a management and remediation plan for lead-based or PCB-contaminated paint. Additionally, it will develop an asbestos management and abatement plan. These plans will be submitted to the Landlord for its prior review and approval. The Landlord will execute all manifests for removal of these materials.

Hangar One Renovation

Reskinning and re-using Hangar One is one of most important projects addressed in this lease. The lease requires that Tenant promptly begin the design and other pre-reskinning work required for Hangar One, and that it diligently pursue the Hangar One reskinning until completion. Tenant's failure to perform these activities in a timely manner is deemed a breach of contract and may result in default and lease termination. It is expected that the project will take two years from the time all permits are approved, as extended for “Environmental Force Majeure Delays, Force Majeure Delays and Landlord Delays”.

Environmental Force Majeure Delay means any delay in the performance of an obligation required by Tenant under this Lease caused by (a) encountering Existing Environmental Conditions, (b) a delay by the generator responsible for signing manifests in signing such manifests, (c) a delay by the responsible party in characterizing and disposing Existing Environmental Conditions off-site, (d) a delay by the responsible party in responding to and mitigating vapor intrusion, and (e) [a delay caused by] EPA, DTSC [California Department of Toxic Substances Control], RWQCB or any other federal, state or local government agency (other than Landlord) with respect to Existing Environmental Conditions.

The conceptual development plan for Hangar One is to re-side it and use the “internal space for industrial purposes, including research and development, testing, light assembly and fabrication, and ancillary office spaces related to space, aviation, rover/robotics and other emerging technologies.” Materials will reflect the technology and innovative character of the original hangar structure: metal and

glass. It is anticipated that upon completion of the interior improvements, the clamshell doors will be made operational. (Note that in a different paragraph, the document states “Tenant will investigate the feasibility of returning the clam-shell doors to operation.”) The new design will reference original elements such as mooring masts and landing circles and “respect the industrial landscape character of the airfield as well as the cultural landscape of the Shenandoah Historic District.”

As I wrote in a November Memo regarding the 2014 Sampling Results, the Navy conducted an investigation of the vapor and groundwater seepage pathways in the utility tunnel that connects with Building 10 and Hangar 1. The tunnel is a pathway for vapor intrusion into Building 10 and Hangar 1. Elevated concentrations of TCE and PCE were reported in the tunnel air and in standing water samples. Air samples in the utility tunnel for PCE and TCE respectively, were 300 and 120 $\mu\text{g}/\text{m}^3$, and 490 and 260 $\mu\text{g}/\text{m}^3$.

EPA has informed me that the Navy and NASA have a difference of opinion over responsibility for remediating this: The Navy has stated that because it is a new project, the Planetary Ventures will be responsible. This difference of opinion may ultimately delay work. However the lease states the following:

3.6 (d) (i) To ensure that the utility tunnel located under Hangar One does not pose an environmental risk, Tenant *may* [emphasis added], but shall not be obligated to, fill such utility tunnel, and to the extent any shallow contaminated ground water is located within such tunnel, such contaminated water shall be assessed, remediated and disposed of in accordance with section 6.5(d) of this Lease and the applicable provisions of the MFA EIMP. Prior to commencing such work, Tenant shall obtain the necessary approvals to conduct such work from the EPA, state and local regulatory agencies, and the Navy.

Section 6.5 (d) states:

(d) Landlord [NASA] will use best efforts to have the Navy accept any dewatered groundwater generated by Tenant from the Premises into treatment facilities operated by the Navy that are now or hereafter existing on the Property. Landlord shall also use its best efforts to have the MEW Companies accept any dewatered groundwater from Area AR-A1 that contains VOCs. To the extent Navy and/or MEW Companies do not accept such dewatered groundwater, Landlord shall accept such dewatered groundwater into Landlord's treatment facility to the extent it has capacity. - Tenant shall characterize de-watered groundwater in order to determine proper means for disposal. Tenant shall obtain any necessary permits for discharge of extracted groundwater to sanitary sewer or storm drain. Copies of such permits will be provided to Landlord.

New Education Center

The Education Facility is conceived as a self-supporting science, technology, engineering, arts, and mathematics center (STE[A]M) for public and private use. For the general public, the Education Facility will provide a place for creating awareness of the regional and technological past and challenges that need to be solved for the

future. For educators, it will provide tools and resources to enrich curricula and support students of all ages in the exploration of STE(A)M topics. For the science, technology, and industry community, the facility will be a new focal point to work together. The facility is currently conceived as a building of approximately 90,000 square feet with surrounding grounds and outdoor spaces.

Vapor Intrusion

In the event vapor intrusion mitigation is required within AR-1, the MEW Companies shall be responsible for the design of, and costs of construction and operation of, the vapor mitigation systems, as provided in the MEW ROD. In the event vapor intrusion mitigation is required within any areas of the Leasehold *other than AR-1*, the Navy shall be responsible for the design of and costs of construction and operation of the vapor mitigation systems.

Wildlife Management

An important feature of this lease requires that the Tenant bear responsibility for the protection of wildlife, including establishing a burrowing owl preserve. Prior to the execution of this Lease, Landlord and Tenant approved a Wildlife Management Plan. (This is not included in the documents attached to the lease.) The Tenant is required to prepare an updated Wildlife Management Plan for the upcoming two-year period and provide updates every two years, after approval by the Landlord.

Preservation of Historic Character

This lease enables the Landlord to meet its obligation to preserve its historic properties in accordance with the National Historic Preservation Act (NHPA). The Tenant will own a leasehold interest in real property partially located in an historic district that has been listed in the National Register of Historic Places. Using the historic property in a manner consistent with the NHPA will ensure the preservation of the Landlord's historic property.

The Conceptual Development Plan recognizes that Moffett Field and “the iconic Hangar One” have a long and important heritage in the Bay Area. Protection and use of these historic assets “tell the story of our past and our progress as a nation.” The Tenant's goal is to both rehabilitate these assets and to enhance and reuse them in a manner that recognizes their historic significance, while contributing to the future. Tenant's development plan envisions that when rehabilitated, these buildings “will continue to shape the future of our nation by enabling research, testing, assembly, development and educational initiatives related to space, aviation, rover/robotics, and other emerging technologies.”

National Environmental Policy Act (NEPA) Review

NEPA reviews are spelled out in the Section 105 of the Construction Provisions, set forth in Exhibit D. It states “Each Project shall commence with an informal review of the proposed design concepts for the Project in an effort to determine the appropriate level of NEPA review .” It also states:

Tenant will, upon Landlord's request, provide an environmental evaluation for

each Project to Landlord Representative. The environmental evaluation will be in the form of an environmental checklist, subject to review and approval by the NASA Ames Center NEPA Manager.

The lease states:

Landlord has been engaged in a lengthy planning process regarding the reuse of the Property to promote and enhance Landlord's missions and activities as set forth above. In order to further that planning process, Landlord, acting by and through Ames Research Center, in collaboration with the cities of Sunnyvale and Mountain View and other cooperating agencies, prepared the EIS to study the development and reuse of the Property. Public input on the EIS took place over approximately two (2) years, and the ROD [Record of Decision] was signed in November 2002. Landlord has now agreed to lease the Premises on the terms and conditions set forth in this Lease and for the purposes provided herein to facilitate the development and long - term operation of the Premises.

This Environmental Impact Statement (EIS) was prepared for the NASA Ames Development Plan (NADP), which includes the NASA Research Park (NRP).

ANALYSIS

It should come as no surprise that Planetary Ventures does not wish to be held responsible for the cleanup of previously contaminated property that is part of the leasehold and seek indemnification for yet undiscovered hazardous materials. However, during the course of the lease, particularly regarding the operation of the airfield, fuel storage, and minor maintenance of machinery, it seems unavoidable that Planetary Ventures will discharge to the environment some of the hazardous materials that have already contaminated the soil and groundwater. While the lease has several clauses about dealing with this issue, I believe that there may come a time when there is a dispute between Landlord and Tenant regarding responsibility.

Because I haven't seen the EIMP, I cannot be sure that it is thorough and addresses all of the environmental issues that are likely to come up during the term of the lease. Because the previous EIMP for NASA Research Park was forward thinking, and since EPA has already reviewed it, it is likely to cover most of the issues. The lease and construction agreements allocate responsibility for vapor intrusion mitigation among the responsible parties, but the EIMP's description in the Lease leaves some questions about the allocation of financial responsibility for vapor intrusion mitigation. To make a more definitive conclusion, I would need to review the Allocation Agreements and the EIMP, which are not attached to this version of the Lease.

The construction agreements are very detailed, and they seem to meet their intended purposes: That is, during new construction activities undertaken by Planetary Ventures, the Agreements define who is responsible for disposal of contaminated soil and groundwater. However, these agreements define locations of responsibility, and as stated above, the missing Allocation Agreements are important in an analysis of this portion of the lease.

The lease requires that Planetary Ventures develop plans for the abatement of lead-based and PCB-tainted paint, as well as asbestos mitigation should construction or demolition activities appear likely to cause a release. This type of planning is necessary at many federal properties, but it places the burden on Planetary Ventures to develop these plans.

Because of the elevated levels of contaminants that are found in air and water inside the utility tunnels under Hangar One, there is a possibility that the re-skinning and renovation of the Hangar One will be delayed. NASA and the Navy disagree on who is responsible for eliminating this pathway. The lease provision cited in the text does provide a possible solution in which Planetary Ventures would assume some of the financial responsibility for eliminating this potential pathway.

Although the lease calls for individual projects to undergo appropriate NEPA review, there is nothing in this lease that requires a supplemental NEPA evaluation to consider the cumulative impacts. In fact, this lease and its resulting construction projects are viewed as falling within the EIS that was prepared in 2002 for the NASA Development Plan (NADP). However, because of the vast allocation of responsibility to Planetary Ventures, encompassing new construction, restoration, and re-use of the three hangars at MFA, Golf Course operation and maintenance, and operation of the airfield, it is likely that there will be potential environmental impacts, as well as cumulative impacts, that were not considered or foreseen in the 2002 EIS. Furthermore, this lease could last for 96 years. NEPA defines a cumulative impact as an “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” (40 C.F.R. § 1508.7).