

APPENDIX B

RESPONSIVENESS SUMMARY

FOR ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1

IR SITE 29, HANGAR 1, FORMER NAS MOFFETT FIELD

MOFFETT FIELD, CALIFORNIA

This page intentionally left blank.

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

Written on: August 18, 2008		Received on: August 26, 2008	
From: Anthony (Tony) Spitaleri, Mayor		Submitted Via: Letter submitted to Kimberly Kesler, Director Navy BRAC PMO West	
Affiliation/Agency: City of Sunnyvale			
Comment 1S: The City of Sunnyvale commends NASA and the NAVY for its release of the EE/CA and provides these comments on Alternative 10: Remove Siding and Coat Exposed Surfaces:		Response 1S	
1S.1: The City supports the report's Removal Action Objective (RAO) to control the migration of contaminants (PCBs) from Hangar One to the environment through source elimination or containment as an acceptable alternative. This alternative will arguably eliminate the risk to human health and the environment.		1S.1: Comment noted.	
1S.2: The City does have some concern that Alternative 10 falls short in its explanation of issues such as control and proposed effectiveness of the alternative within the scope of the removal action. Specifically, the RAO presents no action plan for addressing other significant contaminants of concern. The City does not agree that by using the criteria of implementability and effectiveness and costs, a detailed evaluation is achieved. 1S.3: The City is also concerned that this alternative does not address the interior contaminants of the Hangar and seems to ignore contaminants as regulatory drivers.		1S.2 and 1S.3: The selected removal action (Alternative 10) is a source removal action for the contaminant of concern, PCBs, on both the exterior and interior of Hangar 1. Asbestos and lead are regulated materials that will be properly managed, abated, or disposed of in accordance with applicable regulations during the course of the removal action. Each removal action alternative was evaluated in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan Regulations.	

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>1S.4: The City also urges the Navy to consider feedback from the community regarding acceptance or rejection of alternatives.</p>	<p>1S.4: There was a 45-day public comment period which extended from July 30 to September 13. During this period the Navy held a public meeting on August 26 where comments were received on the proposed NTCRA. The Navy has reviewed all of the comments received and taken them into account in the final decision set forth in the Action Memorandum.</p>
<p>1S.5: The City of Sunnyvale supports the use of federal funds to clean and restore Hangar One so that it is habitable and code-compliant (Legislative Advocacy Position 7.3E.A29). Therefore, the City would not support any alternative which would result in the removal of the Hangar.</p>	<p>1S.5: The selected alternative leaves the hangar structural steel in place for use or improvement by NASA, the current federal facility operator, or any future property owner.</p>

<p>Written on: September 12, 2008 Received on: September 12, 2008</p>	
<p>From: Tom Means, Mayor (Submitted on behalf of Mayor by Priscilla Kubicki, Office Assistant, City Clerk's Office) Submitted Via: Letter submitted to Darren Newton, BRAC Environmental Coordinator, Navy BRAC PMO West</p>	
<p>Affiliation/Agency: City of Mountain View</p>	
<p>Comment 2S: The City is pleased that the Navy is no longer considering demolition of the hangar as the preferred alternative. However, the City continues to hold the position that the Navy is responsible for restoring the hangar with replacement of siding as historic mitigation and bringing the hangar into code compliance for future use. Specifically, the City of Mountain View submits the following comments regarding the EE/CA Revision 1:</p>	<p>Response 2S</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>2S.1: The City of Mountain View encourages the Navy to restore the hangar with replacement of siding as historic mitigation and bring the hangar into code compliance.</p>	<p>2S.1: Comment noted.</p>
<p>2S.2: The City of Mountain View requests that the Navy provide specific details behind the EE/CA’s \$14.9 million cost estimate for re-siding the hangar.</p>	<p>2S.2: Each removal action alternative was evaluated in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan Regulations. The cost estimates prepared and provided in the EE/CA for each alternative are of sufficient detail for a valid comparative cost analysis of alternatives.</p>
<p>2S.3: The City of Mountain View encourages the Navy, in the event they choose not to select replacement of siding as historic mitigation or not to bring the hangar into code compliance, to work cooperatively with NASA during the remedial design and implementation phases of the project to plan for a full solution, both remediation and re-siding of the hangar, simultaneously and expeditiously. Such cooperation could achieve significant project efficiencies for efforts to evaluate, make decisions and implement re-siding of the hangar and code upgrades. For example, there may be significant cost savings if scaffolding or other construction equipment can be shared between siding removal and siding replacement, as well as for electrical or mechanical code upgrades.</p>	<p>2S.3: The Navy and NASA are formally working together and exchanging information. The Navy has provided NASA information pertaining to the recommended removal action efforts and implementation schedule. While NASA has not identified a reuse for the hangar at this time, they are committed to sharing information with the Navy on its planned reuse efforts. Both agencies are striving to coordinate efforts in a manner consistent with the recent recommendation of the Advisory Council on Historic Preservation.</p>
<p>2S.4: The City of Mountain View requests that the Navy assess, in greater detail, any potential negative effects of the structural framework being left open to the elements, such as, but not limited to, bird nesting and potential safety impacts for aircraft safety, potential deterioration to the hangar’s floor and potential corrosion of any mechanical members related to the hangar’s doors.</p>	<p>2S.4: Due to the potential for the hangar to serve as a roosting area, a biological survey will be conducted prior to beginning the removal action to support development of appropriate measures to address concerns about migratory birds. Potential impacts associated with the activities of other species and potential impacts on aircraft safety will need to be addressed by NASA as airfield operations and facility maintenance issues. The hangar’s floor is a continuation of the concrete slab that exists on the outside. The structural steel and mechanical members will be coated with weather-resistant epoxy to contain the PCBs and to</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

	<p>protect against potential corrosion. Hangar 1 currently has a flashing beacon. This beacon not only marks the obstruction, but also serves as an aid to pilots by telling them there is an airfield present and the type of airfield. The Navy's planned action will leave this beacon in place. Since the Hangar 1 structure and beacon are being left intact, additional requirements are not anticipated.</p>
<p>2S.5: The City of Mountain View requests that the Navy commit to testing the recoating of the structural steel more frequently than every five years to ensure containment of the PCBs.</p>	<p>2S.5: Based on the expected life span of the weather-resistant epoxy coating to be applied to the hangar's structural steel, inspections and touch-ups every 5 years and a recoating every 10 years are adequate. Once the removal action is complete, a monitoring and maintenance plan will be developed to ensure the coating's integrity.</p>
<p>2S.6: The City of Mountain View requests that the Navy further evaluate the epoxy penetrant remediation process used by Thomarios Corporation for the inside of Hangar One's sister hangar in Akron, Ohio, in case this process might provide a feasible alternative for remediating the inside and outside of Hangar One without removing the siding.</p> <p>Thank you for the opportunity to comment on the EE/CA Revision 1. Hangar One has been an important part of the Mountain View community since its construction in 1933 and the City and its community members are vitally interested in its preservation and future use.</p>	<p>2S.6: Thomarios was awarded a portion of the Akron Airdock Interior Cleaning and Coating Project. Their approach was to remediate the PCB dust by vacuuming the steel structure as well as catwalks and other interior items and then coating the steel to encapsulate the PCBs in the paint. Thomarios did not perform any work on the exterior of the Akron Airdock. Navy representatives visited the Akron hangar several times and corresponded regularly with the Lockheed remediation group. The approach in Akron was considered during the EE/CA process. The Navy spent more than 2 years evaluating the 13 exterior alternatives and 4 interior alternatives during the EE/CA process. Four of the alternatives for the exterior were coating alternatives that received a complete evaluation in the EE/CA. Two additional coatings were briefly investigated based on public comments, but were determined not to be feasible. The coating alternatives were all evaluated with the assistance of the actual coating manufacturers' representatives and coating application</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

	<p>professionals. They were evaluated for life span, adherence, and color options. All of the alternatives for the interior used different coatings. The Navy plans to pressure wash the structural steel prior to coating and capture the runoff to ensure all of the dust is removed. The Navy believes this combined approach is the best remediation solution for Hangar 1.</p>
--	---

Written on: September 12, 2008	Received on: September 12, 2008
From: Stephen E. Abbors, General Manager (Submitted by Jeannie Buscaglia, Planning Department Administrative Assistant)	Submitted Via: Letter submitted to Darren Newton, BRAC Environmental Coordinator, Navy BRAC PMO West
Affiliation/Agency: Midpeninsula Regional Open Space District	
<p>Comment 3S: Thank you very much for the opportunity to comment on the referenced document. As you know, the Midpeninsula Regional Open Space District (District) owns the 55-acre Stevens Creek Nature Study Area (SCNSA) which adjoins the former NAS Moffett Field. The SCNSA is part of Installation Restoration Site 25, also known as the “Stormwater Retention Pond”, which is to be remediated as part of a different Record of Decision once all potentially contributing upland sources have been fully addressed. The hydrogeologic relationship between Site 29 and Site 25 is well documented (NASA 2003a; NASA 2003b) and thus remediation plans for addressing contamination of groundwater by polychlorinated biphenyl’s (PCBs) leaching from Hanger One is of paramount concern to the District. The EE/CA recommends Removal Action Alternative 10, i.e., removal of the Hanger One siding followed by the coating of exposed surfaces with a protective sealant.</p> <p>While Alternative 10 would remove <u>most</u> of the PCB contaminants, some will remain. The District is therefore very concerned with the potential for additional</p>	Response 3S

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>toxins to enter both the groundwater aquifers up-gradient from Site 25 and the pond at the SCNSA. The continuing presence of a contaminant source contributing toxins to a nature study area that will soon receive broader public use by connecting Mountain View Shoreline Park to Sunnyvale Baylands Park via the San Francisco Bay Trail mandates that the Navy take those measures that provide the greatest protection for public health. We are concerned for the following reasons:</p>	
<p>3S.1: The chance of further contaminant release, should the sealant used on the skeletal frame deteriorate from the effects of wind, rain, sun and marine environment, remains.</p> <p>3S.2: Nesting by birds on the structural members is also likely to contribute to accelerated wear of the protective coating.</p> <p>3S.3: The long-term obligation to maintain the coating in an impermeable state is vaguely addressed by reference to non-specific “institutional controls”.</p> <p>3S.4: Spot maintenance is unlikely to be a workable alternative, and regularly scheduled re-coating would be an expensive and time consuming process in the long-term for any federal agency charged with such responsibilities.</p> <p>3S.5: The District believes that some of these concerns are better addressed with an alternative that does not depend on periodic recoating of damaged or deteriorated exposed structural members. Alternatives that result in total coverage of the existing siding, eliminating direct exposure to the atmosphere, provide some level of certainty that the PCBs will be contained in the structure rather than migrate to the aquifers that connect to Site 25. However, these alternatives would only be effective as long as the integrity of the coating or siding is preserved. It appears that a combination of the siding removal of Alternative 10, with the application of both a high quality structural coating and a new (ideally visually similar) siding presented in Alternative 6, would be the most protective approach from the standpoint of human health and the environment. Before a final containment solution is selected for the remedial action, a broader range of covering options and/or combinations of the current alternatives should be more</p>	<p>3S.1, 3S.2, 3S.4, 3S.5: The coating selected is designed for exterior use and to stand up to the elements. Once the removal action is complete, a monitoring and maintenance plan will be developed to ensure the coating’s integrity.</p> <p>Additionally, due to the potential for the hangar to serve as a roosting area, a biological survey will be conducted prior to beginning the removal action to support development of appropriate measures to address concerns about migratory birds. Potential impacts associated with the activities of other species will need to be addressed as airfield operations and facility maintenance issues.</p> <p>The EE/CA process evaluated numerous state-of-the-art alternatives involving coating, stripping, and covering the existing siding and structural steel. The alternatives in the Final EE/CA represent the fullest and best set of options to address the contamination. The selected alternative is a viable alternative. It is technically and administratively feasible.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

thoroughly explored both from engineering and cost perspectives. The District's primary concern is environmental protection. In view of the very strong public interest in the historical preservation of Hanger One, we believe the project merits a more thorough review and analysis of additional remedial action alternatives to identify a remediation plan that achieves the Remedial Action Objectives and satisfies preservation goals.

Stephen Abbors
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022
(650) 691-1200
www.openspace.org

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

Written on: September 12, 2008		Received on: September 12, 2008	
From: Lenny Siegel, Executive Director		Submitted Via: Letter submitted to Darren Newton, BRAC Environmental Coordinator, Navy BRAC PMO West	
Affiliation/Agency: Center for Public Environmental Oversight (A project of the Pacific Studies Center)			
<p>Comment 4S: We appreciate the Navy’s efforts to both inform our community and hear our concerns about the proposed Removal Action for Moffett Field’s Site 29, Hangar One, but we remain disappointed in both the quality of the July 2008 Engineering Evaluation/Cost Analysis (EE/CA) and the limitations of the Navy’s proposed action. The Navy should plan to fully restore Hangar One after removing toxic substances from the cladding (roof and siding) and short of that, it should explain why it does not wish to and does not have to.</p>		<p>Response 4S: The selected alternative leaves the hangar structural steel in place for use or improvement by NASA, the current federal facility operator, or a future property owner.</p> <p>Any additional mitigation would be the responsibility of NASA pursuant to their “Programmatic Agreement for the Historic Resources Protection Plan, Shenandoah Plaza Historic District, Moffett Field, CA” with ACHP.</p>	
<p>4S.1: CPEO acknowledges that the evidence that the Hangar would pose a risk in the future if the interior and exterior were not fully remediated is overwhelming. We appreciate the work that NASA and the Navy have done to document these risks in response to our earlier comments. More important, we support removal of the cladding as the most permanent and effective method of preventing releases and exposures.</p>		<p>4S.1: Comment noted.</p>	

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>4S.2: When the Navy was allowed to transform what was to be a focused Remedial Investigation/Feasibility Study (RI/FS) into an EE/CA, it promised that the document would be “robust” and comprehensive. Robust, by our definition, is <i>not</i> a document that leaves out important pieces of information, is <i>not</i> a document that fails to analyze the full environmental consequences of an action, and is <i>not</i> a document that uses only limited criteria to evaluate the action. Because the conclusions of the EE/CA suggest that cost is the overwhelming criterion by which the preferred alternative was selected, we are dismayed that all cost elements have not been made transparent.</p>	<p>4S.2: Each removal action alternative was evaluated in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan regulations. The cost estimates prepared and provided in the EE/CA for each alternative are of sufficient detail for a valid comparative cost analysis of alternatives.</p>
<p>4S.3: The cleanup of Hangar One, under EPA Superfund guidance, should support its reasonably anticipated future land use. The Navy, like any other responsible party, has an obligation to remediate the property to allow the reasonably anticipated land use. The reasonably anticipated use of the Hangar is as a public facility, such as a museum or educational center. This CPEO Hangar One EE/CA Comments 2 September 12, 2008 means two things:</p> <ol style="list-style-type: none"> 1. Residual contamination should not make the reuse unsafe. The Navy appears to meet this criterion. 2. Cleanup actions should not prevent reuse. This is where the Navy falls short. When the Navy excavated the Northern Channel at Moffett Field, it restored the channel to its original form and function. When it removed inactive underground storage tanks, it filled the holes. When it removes the toxic panels, it should replace them with visually similar, but safer materials. 	<p>4S.3: The Navy’s cleanup action will not prevent reuse. The manner in which the Navy will conduct the cleanup action will not preclude implementation of future restoration measures by the National Aeronautics and Space Administration (NASA), the federal facility operator of the former NAS Moffett Field, or others interested in potential reuse of the hangar. The cleanup action will leave the Hangar 1 frame standing to allow for improvements and future reuse. The Navy’s primary responsibility in conducting the CERCLA removal action is to reduce risks to human health and the environment associated with the release or potential release of hazardous substances present in the construction materials of Hangar 1. Future use of Hangar 1 as a museum or educational center is a change in building use, requiring improvements. Structural or building improvements for change in reuse are beyond the scope of the Navy’s CERCLA action.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>4S.4: Furthermore, the removal action should comply with applicable or relevant and appropriate historic preservation requirements (ARARs). On page 4-39 of the EE/CA, the Navy agrees: “Mitigation measures would be performed to substantively comply with the NHPA [National Historic Preservation Act] and the Secretary of the Interior’s Standards for the Treatment of Historic Properties (36 C.F.R., Part 68).” This means that the Hangar should be preserved, restored, or rehabilitated.</p> <p>However, those latter Standards state, for both Preservation and Rehabilitation: “A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces and spatial relationships.” For Restoration, they state, “A property will be used as it was historically or be given a new use that interprets the property and its restoration period.” But the Navy has proposed to leave this unique, historical landmark in a condition that does not allow it to be reused at all!</p>	<p>4S.4: The Navy substantively complied with the NHPA for this CERCLA removal action by actively seeking the expertise and comments of the California Office of Historic Preservation, the Advisory Council on Historic Preservation, and other interested parties. The Navy met and discussed alternatives, adverse effects, and historic mitigation measures with OHP, ACHP, and other stakeholders throughout the CERCLA removal action planning process. The removal action maintains the frame of Hangar 1 and reflects the original hangar’s relationship to the other contributing structures within the Historic District. Maintenance of the frame, along with the other recommended historic mitigation, ensures the Historic District will continue to represent the hangar’s original purpose and visual scale while protecting human health and the environment. The historic mitigation measures proposed in the EE/CA and selected in the Action Memorandum adequately reflect consideration of the need to preserve and protect the hangar as a cultural resource while addressing the need to respond to the release of contaminants from the structure.</p>
<p>4S.5: The EE/CA repeatedly assures that the Navy will consult with the Advisory Council on Historic Preservation, the State Historic Preservation Office, and others in furtherance of these objectives. That consultation, in itself, does not constitute substantive compliance. The fact that the Navy is Lead Agency under CERCLA (the Comprehensive Environmental Response, Compensation, and Liability Act) does not constitute authority to arbitrarily ignore the interpretations of the historic preservation ARARs provided by the historic preservation agencies. Rather, to override those recommendations the Navy, under CERCLA, must demonstrate that other ARARs conflict or that historic preservation would be technically impracticable, prohibitively expensive, or pose an unacceptable risk to human health, public safety, or the natural environment. The Navy does not make any such argument in the EE/CA. It simply chooses not to include full historic mitigation in</p>	<p>4S.5: Input and recommendations provided by the Advisory Council on Historic Preservation, the State Historic Preservation Office, and others concerned about historic preservation had a significant impact on the Navy’s evaluation of alternatives under CERCLA. At no point in the process were any interpretations of historic preservation ARARs or recommendations provided ignored by the Navy.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>the preferred alternative.</p>	
<p>4S.6: Reading between the lines, the only potential justification for ignoring historic preservation requirements is cost. Table 5-2 of the EE/CA estimated that re-covering the Hangar would cost \$14,910,000. However, you stated at the September 11 meeting of the Moffett Field Restoration Advisory Board that this number includes remobilization costs, on the assumption that re-covering would be a separate project from removal. In addition, to our knowledge this added expense does not account for the savings on maintenance likely to result from re-covering. But even \$15 million does not meet the test of prohibitive cost within the Navy’s BRAC [Base Realignment and Closure] environmental budget of over \$150 million each year. The Navy (including the Marines) has spent about \$2.5 billion nationally on BRAC cleanup through CPEO Hangar One EE/CA Comments 3 September 12, 2008 FY 2007, and it expects to spend nearly \$1.5 billion more. The projected additional cost of recovering Hangar One is less than one percent of that latter figure—the programmatic cost to complete.</p>	<p>4S.6: Although the scope of the Navy’s CERCLA removal action was not expanded to incorporate requirements for building improvements or code compliance in support of future reuse, the Navy has not ignored historic preservation requirements. Implementation of the selected alternative will leave the hangar in a safe condition and will not preclude implementation of future restoration measures by NASA, the federal facility operator of the former NAS Moffett Field, or others interested in potential reuse of the hangar.</p>
<p>4S.7: In some of its statements, the Navy seems to suggest that there is an obligation to restore Hangar One after the removal of the panels, but that the obligation solely rests with NASA (the current owner) not the Navy. We see no legal or moral justification for this position. The Navy is proposing to take an action that will damage a unique—in fact, monumental—architectural and historic landmark. It is obligated to mitigate that damage. NASA, the current owner, also has obligations under the National Historic Preservation Act, and other entities—including future Hangar One occupants—may also contribute to restoration of the building. We do not object to that. But the Navy’s obligation remains.</p>	<p>4S.7: Comment noted. The manner in which the Navy will conduct the environmental response action will not preclude implementation of future restoration measures by NASA, the federal facility operator of the former NAS Moffett Field, or others interested in potential reuse of the hangar. The Navy understands that NASA has begun gathering information towards identifying a reuse for the hangar and is seeking partners to assist in its restoration. The Navy is working with NASA to better coordinate cleanup actions with NASA’s reuse efforts.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>4S.8: We believe that the artists’ renderings of the painted Hangar One frame in the Navy’s Section 106 (“Adverse Effects”) Report exaggerates the similarity between the skeletal structure and the original. That is, based upon appearance alone, the uncovered frame does not constitute historic preservation. In fact, leaving the Hangar uncovered will undermine the integrity, visual appearance, and aesthetic value of the entire Moffett Historic District. We believe that the photo below, taken from the Navy’s structural analysis report, better represents the appearance of the exposed frame.</p>	<p>4S.8: Comment noted: The Navy acknowledges that the proposed environmental response action will affect character-defining architectural features that make the hangar distinctive. Removing the siding from the hangar frame will result in an adverse effect on the hangar and the historic district. Because the source of PCB contamination is the hangar siding material itself, it is difficult to avoid harm to the historic resource.</p>
<p>4S.9: Moreover, we are concerned that the uncovered frame may become a roost for large numbers of birds, and thus become an unsanitary public nuisance. There is no analysis in the EE/CA of how birds will roost in this structure, if it is harmful to wildlife, or how bird droppings will affect the paint. There is no indication that the operations and maintenance (O&M) component of Alternative 10 (\$3.1 million thirty-year present value) includes measures to prevent or respond to bird damage.</p>	<p>4S.9: Due to the potential for the hangar to serve as a roosting area, a biological survey will be conducted prior to beginning the removal action to support development of appropriate measures to address concerns about migratory birds. Potential impacts associated with the activities of other species will need to be addressed as airfield operations and facility maintenance issues. The coating selected is designed for exterior use and to stand up to the elements.</p>
<p>4S.10: In fact, we find the discussion of maintenance of the skinned Hangar wholly inadequate. If the Hangar is left uncovered for any length of time, preserving the skeleton will require more than the promised inspections and touch-ups every 5 years and recoating the frame every 10 years. Perhaps the Navy expects NASA to bear any additional costs. In any case, we support the Navy’s proposal to remove the cladding, in preference over various forms of coating the structure, because of the long-term costs and liabilities. However, we believe that the Navy has failed to consider the long-term costs and liabilities of leaving the Hangar frame exposed.</p>	<p>4S.10: Comment noted.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>4S.11: The Center for Public Environmental Oversight strongly urges the Navy to re-consider its proposal to leave the Hangar One frame exposed. The most efficient and lasting solution to Hangar One’s embedded toxic contamination is for the Navy to remove the roof and siding panels and place a new, environmentally safe cover on the building. Once that decision is made, we will support efforts by the Navy to recover a share of those costs from institutions, such as NASA or future occupants, who stand to benefit directly from full preservation. The country and the local community will benefit indirectly from the Hangar’s preservation, and conversely, failure to restore Hangar One and make it ready for reuse will damage our heritage as well as our living environment today.</p>	<p>4S.11: Comment noted.</p>
---	-------------------------------------

<p>Written on: September 12, 2008 Received on: September 12, 2008</p>	
<p>From: Milford Wayne Donaldson, FAIA, State Historic Preservation Officer (Submitted by Susan Stratton, PhD, RPA Supervisor, Project Review Unit)</p>	<p>Submitted Via: Letter submitted to Darren Newton, BRAC Environmental Coordinator, Navy BRAC PMO West</p>
<p>Affiliation/Agency: Office of Historic Preservation</p>	
<p>Comment 5S: Thank you for the opportunity to provide you with my formal comments on your 30 July 2008 document Engineering Evaluation/Cost Analysis Revision I (Revision I EE/CA), Site 29, Hangar One, Former Naval Air Station Moffett Field, Moffett Field, California. I appreciate your continuing efforts to address the adverse effects to Hangar One and to the United States Naval Air Station Sunnyvale, California — Historic District, as well as complying with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 4700, as amended, and its implementing regulation at 36 CFR Part 800 as it applies to the CERCLA removal action. You extended me the opportunity to provide informal and general comments (letter to Scott Gromko</p>	<p>Response 5S</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>dated 27 September 2007) on many fundamental points of concern regarding your 11 September 2007 Internal Working Draft EE/CA.</p> <p>I continue to be disappointed to find that several of my September 2007 comments were not addressed or were overlooked in the Revision I EE/CA document. More specifically,</p>	
<p>5S.1: In general, considering the Revision 1 EE/CA and the removal action as it relates to compliance with 36 CFR 800, it is still my opinion that the Navy has too narrowly defined the undertaking to only include the remediation of PCBs and in doing so, it has not provided a reasonable consideration for the preservation of the building intact. Again, I would therefore suggest that the Navy and NASA should carefully consider refining its undertaking and realizing its stewardship responsibilities under Section 110 and 106 of the National Historic Preservation Act to protect and maintain the integrity of this nationally significant historic property. NASA Ames Research Center, in assuming ownership of the Hangar must become a “real live player” and not solely standing on the sidelines saying nice things about the historical importance of the Hangar. NASA and the Navy could very well partner in the preservation endeavor of Hanger One and go to Congress seeking appropriations which would provide the monies necessary to re-skin the Hangar.</p>	<p>5S.1: The Navy’s responsibility for conducting the CERCLA response action at Hangar 1 overlaps with the some responsibilities or potential future actions of NASA. Generally, NASA is responsible for cultural resource management and reuse of the property while the Navy is responsible for the CERCLA response action. The Navy considered NASA’s interest in the potential reuse of the hangar in its evaluation of the removal action alternatives. NASA has explored and continues to explore potential partnerships to support restoration and has recently solicited input from the community for ideas on future use of Hangar 1. While re-siding the hangar can be evaluated as part of NASA’s NHPA obligations if NASA decides to reuse the hangar, the Navy acknowledges the need to focus time and efforts on an enhanced collaboration with NASA to mitigate the adverse effects of the selected removal action.</p>
<p>5S.2: If Hangar One is left as an open metal structure rather than a building, as it would be under Alternative 10, are there any specific FAA regulations that could require additional changes, e.g., painting the metal structure red and white, adding additional lighting, and so forth? If so, this would need to be taken into account as it would greatly affect the visual quality of such a large structure and its setting within the historic district. To date, the Navy, specifically Mr. Marvin Norman, has not provided this information as promised.</p>	<p>5S.2: While Moffett Field is a federal airfield under NASA control and the FAA does not have jurisdiction over its operations, NASA has informed the Navy that it follows FAA regulations. The FAA has an Obstruction Evaluation Service (OES), which provides for airfields over which it has jurisdiction evaluations and determinations of whether obstructions pose a threat to safe flight operations. OES has also issued an Advisory Circular 70/7460-1K, effective 2/1/07, covering obstruction marking and lighting. While painting the hangar certain colors is one form of obstruction marking, the Advisory Circular details two other forms of marking involving medium or high intensity flashing white obstruction lights</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

	<p>in preference to painting a structure different colors and patterns. Hangar 1 currently has a flashing beacon. This beacon not only marks the obstruction, but also serves as an aid to pilots by telling them there is an airfield present and the type of airfield. The Navy's planned action will leave this beacon in place. Since the Hangar 1 structure and beacon are being left intact, additional requirements are not anticipated.</p>
<p>5S.3: I am concerned because Alternative 10 gives the false impression that Hangar One will be "saved." However, I believe there is a real potential that this alternative will ultimately lead to the slow destruction of the structure if NASA or some other third party does not come forward with funding to re-skin and rehabilitate the building. The structure will eventually become an eyesore, the maintenance funds will disappear and eventually, the rusted connections will be determined structurally inadequate and Hangar One will be determined unsafe. It will be a classic case of "demolition by neglect." We have reviewed a recent communication from NASA dated 8 September 2008 expressing concern but no real financial commitment to restore the hangar with exterior panels. We have heard this discussion for the last five years, with no real commitment to come forward as required under Section 110 of the National Historic Preservation Act.</p>	<p>5S.3: Comment noted. The Navy acknowledges the importance of pursuing a collaborative course of action in regard to its CERCLA undertaking that supports NASA's responsibility to manage and maintain the hangar in a way that considers the preservation of its cultural value in compliance with the National Historic Preservation Act.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>5S.4: Thank you for completing gravity, seismic, and wind forces vulnerability study resulting in a preliminary structural retrofit concept for Hangar One. When we initiated our concerns as a result of your preferred Alternative 10, we were concerned about leaving a frame structural system in potential harms way for possible structural collapse. We are pleased that you arrive at the following conclusion, “The main structural steel framing system (arches and bracing) without the roofing/siding for Alternative 10 meets the seismic and wind acceptability criteria and requires no retrofit of the structural members; however, minor repair may be required in some limited areas due to local effects (Structural Analysis Gravity, Seismic and Wind Vulnerability Study, Exeltech Consulting, Inc., July 21, 2008).”</p> <p>We are also pleased that analysis was performed on implementing other alternatives and that the California Historical Building Code and FEMA 356 were used as reference documents.</p>	<p>5S.4: Comment noted.</p>
<p>5S.5: I still do not understand why sandblasting the metal frame is not an option so as to remove the greatest amount of contamination prior to coating. This method has been used successfully on large structures, such as long span metal bridges and within shipyards, as I noted during the site visit on 13 September 2007. This is different from your Alternative 7 which discusses the infeasibility of “media” blasting the hangar (including the panels). Areas can be covered where this work is taking place, similar to the cleaning of steel frames on buildings under construction prior to the application of sprayed-on fire proofing. If the frame is to be pressure washed and the water captured and disposed of as a hazardous waste, how is there any difference between the use of sand for sandblasting and the water for the pressure wash? What is the acceptable level of PCB in the atmosphere, soil, and groundwater that is not considered a health risk, and would that level be achieved by sandblasting followed by the protective coating, perhaps eliminating the need or recurrence of future monitoring and touch-ups? This would perhaps remove any lingering doubts regarding the Hanger as a health risk if the metal frame were to be left in place as suggested by</p>	<p>5S.5: Media blasting was evaluated during preparation of the EE/CA. Due to numerous connections between the structural steel members and the number of joints, effective removal of all of the PCB-contaminated paint from the structure would be difficult to achieve. Since media blasting involves the removal of paint containing lead and PCBs, complete isolation of the work space and added worker protection would be necessary to comply with safety and environmental requirements. This media blasting is different from that used for bridges or ships since the blasting is part of a CERCLA response action not just a paint recoating process. While media blasting is technically feasible, the structural steel would still require coating to contain the remaining PCB contaminated paint that could not be removed. Because coating of the steel is still required, media blasting would result in a significant added cost with little benefit. Therefore, media blasting was eliminated, and pressure washing and coating selected.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>the preferred Alternative 10.</p>	
<p>5S.6: The Navy has estimated the cost for mitigating the adverse effects equally for all alternatives. As you know, under 36 CFR § 800.6, the Navy is obligated to seek ways to avoid, minimize, or mitigate adverse effects to historic properties. I am not convinced that all alternatives would require the same level of mitigation. For example, the reskinning in Alternative 6 or a modified version Alternative 10 could result in a no adverse effect determination, per 36 CFR § 800.5, which could preclude the need for mitigation measures and thus those cost savings could then be applied toward reducing the overall cost proposal for re-skinning the frame.</p>	<p>5S.6: While the scope of Alternative 6 included replacement siding, the Navy determined that implementing Alternative 6 would still have an adverse effect because it would require completely covering the hangar with a siding material inconsistent with construction materials used in 1932. In any case, HAER documentation had been prepared by NASA in support of the Navy’s undertaking and the Navy planned to finalize and submit that documentation for the benefit of the community regardless of which alternative was ultimately selected. Therefore, the cost of that documentation was evaluated as an aspect of each alternative considered in the EE/CA.</p>
<p>5S.7: Given the controversial nature of this proposed action and the high degree of visibility and public interest, I feel that for purposes of public disclosure, a copy of the Congressional letter dated 16 June 2006 addressed to the Honorable Donald C. Winter, Secretary of the Navy should be included in the comment section of the revised EE/CA. Any recent letters noting concern by legislators should also be included in the revised EE/CA.</p>	<p>5S.7: The Responsiveness Summary for the Action Memorandum will include responses to all significant comments received during the public comment period. Other correspondence will be included in the Information Repository. In accordance with regulations, the Administrative Record contains all documents considered or relied upon in selecting the cleanup action.</p>
<p>5S.8: I have noticed that for several comments regarding the historic importance of the Hangar, the Navy has provided the following response, “The Navy is working closely with the Office of Historic Preservation, the Advisory Council on Historic Preservation and other interested parties to properly integrate consideration of cultural resource issues in the planning and implementation of the cleanup action.” While this is a true statement, I feel that it fails to represent my position and that of my office in the endeavor that Hangar One should be preserved on a basis of its unique place in aviation history and that the Hangar serves as the centerpiece for the Sunnyvale Historic District. While the Navy has completed, or is in the process of completing various mitigation measures, those measures still fall short of compensating for the adverse effects to Hangar One</p>	<p>5S.8: Comment noted. The Navy has determined that its selection of a removal action alternative that does not require demolition of the hangar and commitment to implement the historic mitigation measures recommended in the EE/CA appropriately reflects consideration of the need to preserve and protect the hangar as a cultural resource. The removal action maintains the frame of Hangar 1 and reflects the original hangar’s relationship to the other contributing structures within the Historic District. Maintenance of the frame along with the other recommended historic mitigation, ensures the hangar and historic district will continue to represent the hangar’s original purpose and massive visual scale while protecting human health and the environment. The remaining structure</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>and its place in history and on the local landscape.</p>	<p>provides the opportunity for potential future adaptive reuse by NASA.</p>
<p>5S.9: To summarize, I and the State of California would strongly encourage the Navy, NASA, and other parties to find a means of preserving a unique component of American history which transcends internationally. Hangar One, the 1933 dirigible hangar constructed at Moffett Field for purposes of housing the USS Macon, a component of the Navy’s lighter-than-air program is individually listed on the National Register as well as a contributor to the historic district at Moffett Field. In the early 1950s, Hangar One was named a Naval Historical Monument. Unless or until updated National Register nomination forms for Hangar One and the US Naval Air Station Sunnyvale, California - Historic District have been submitted to the Keeper of the National Register for a determination, it is unknown as to whether or not the Hangar will retain sufficient ‘historic integrity as it relates to the seven qualities of feeling, association, workmanship, materials, setting, location and design for the Hangar to remain a nationally listed property or for the continuation of the Historic District.</p>	<p>5S.9: Comment noted.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

5S.10: Hangar One is the subject of a CERCLA action for the removal of PCBs, lead-base paint and asbestos. Currently, it appears the final remediation efforts will leave the steel framework of the Hangar with the complete removal of the hazardous skin and interior concrete block structures. NASA has expressed interest in taking ownership of the Hangar once the Navy has completed the removal and clean-up of hazardous materials. NASA does not have the funds with which to “reskin” the Hangar. I am afraid that without the Hangar being covered in a similar fabric that it will end up being torn down completely. As it is located next to an active runway, the FAA most likely will not allow the unclad Hangar, redefined now as a structure, to remain due to the hazard it poses for landing aircraft. Additionally, the sea air and other elements of nature will begin to take its toll on the structure potentially leaving an eyesore on the landscape. Should Hangar One be demolished, the historic district will be lost without its centerpiece.

The preservation of this magnificent structure is of national importance and congressional appropriation of funds for its complete restoration including the installation of new panels should be secured prior to the start of removal of the panels.

Milford Wayne Donaldson, FAIA
Office of Historic Preservation
1416 9th Street, Rm 1442
Sacramento, CA 94296

5S.10: The selected removal action (Alternative 10) is a source removal action for the contaminant of concern, PCBs, on both the exterior and interior of Hangar 1. Asbestos and lead are regulated materials that will be properly managed, abated, or disposed of in accordance with applicable regulations during the course of the removal action. The selected alternative leaves the hangar structural steel in place for use or improvement by the current federal facility operator or a future property owner.

Moffett Field is a federal airfield under NASA control. NASA has been closely involved in the EE/CA process.

Once the removal action is complete a monitoring and maintenance plan will be developed to ensure the weather-resistant epoxy coating’s integrity.

Additionally, see response to 5S.2.

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

Written on: September 12, 2008		Received on: September 16, 2008	
From: Sarah Kloss, Remedial Project Manager Superfund Federal Facility Branch		Submitted Via: Letter submitted to Darren Newton, BRAC Environmental Coordinator, Navy BRAC PMO West	
Affiliation/Agency: U.S. Environmental Protection Agency (USEPA)			
Comment 6S: Since the current response action for Hangar 1 is being conducted under removal authority, the enclosed comments are limited to general comments targeted at the protectiveness of the selected removal action and how the selected removal action will tie into a long-term final remedy at Site 29.		Response 6S	
6S.1: Lead and asbestos as hazardous materials: The EE/CA identifies lead and asbestos as hazardous materials at the Site. However, the RAOs for the EE/CA are limited to the prevention of release of the PCBs only. As the Navy did in the 2004 Time Critical Removal Action for the Hangar, the RAOs should identify that PCBs are the regulatory driver for the removal and identify the objective of the removal action as the prevention of migration of all hazardous substances, including PCBs, lead, and asbestos, from the Site into the environment.		6S.1: The selected removal action (Alternative 10) is a source removal action for the contaminant of concern, PCBs, on both the exterior and interior of Hangar 1. Asbestos and lead are regulated materials that will be properly managed, abated, or disposed of in accordance with applicable regulations during the course of the removal action.	
6S.2: The Navy has isolated the work to be done in this removal action from other work that will need to be done to complete characterization, cleanup, and controlling potential exposure from Site 29. The EPA does not agree that assessing the extent of Site 29 contamination should be outside the scope of this removal action. As a part of the removal action, the Navy should conduct sampling to confirm that there is no residual contamination at or above levels of concern for all affected media at Site 29. The areas subject to confirmation sampling include: <ul style="list-style-type: none"> • Soil in all the unpaved areas adjacent to the Hangar; • Any part of the stormwater pathway from Hangar 1 to Site 25 that is not included in the scope of the remedial action at Site 25; and 		6S.2, 6S.3, 6S.4: Confirmation sampling will be conducted as part of the removal action in the unpaved areas adjacent to the Hangar. In 1994 NASA constructed a below-grade storm sewer, including the settling basin at the south edge of the Eastern Diked Marsh. This system is monitored and controlled under NASA's stormwater permit with the Water Board. The settling basin, located at the outfall of the stormwater drainage system, allows for collection of sediments in the stormwater. The sediment can then be dried and removed from the basin. This settling basin helps prevent contaminated sediment from entering the Eastern Diked Marsh and the stormwater retention pond.	

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

- Any portions of the former structure that are left in place, including the concrete floor.

6S.3: Any data gaps not addressed by the removal action must be addressed by the Navy in an RI/FS for Site 29. Based on the results of confirmation sampling during the removal action and the results of any additional sampling required by the regulatory agencies, the Navy must evaluate the following:

- Remedial actions necessary to address any residual Site 29 contamination not included in the scope of this removal action; and

If the selected removal alternative allows waste to be left in place, evaluation of Institutional Controls to prevent exposure to residual contamination. As a part of the restrictions on future use, the RI/FS will also have to assess the need for vapor intrusion mitigation measures related to Site 28, WATS area, contamination beneath the Hangar footprint.

6S.4. Concrete is a porous surface under TSCA (40 C.F.R. §761.3). The EE/CA states that some wipe samples of the concrete floor of the Hangar have concentrations higher than TSCA requirements for non-porous surfaces. These wipe sample results suggest the potential for contamination within the concrete floor slab. Since the concrete floor slab is considered a porous surface under TSCA, wipe samples alone are insufficient for sampling to determine whether or not the concrete floor slab is contaminated with PCBs at or above levels of concern. (See 40 C.F.R. §761.60(b)(8)). Also, the EE/CA only mentions one core sample result for PCBs for the entire concrete floor pad. Assuming the area dimensions in the EE/CA are correct, that means there is only one core sample for approximately 8 acres of floor space. The Navy must conduct additional core sampling as a part of the confirmation sampling protocol for this removal action to determine whether the concrete pad is contaminated with PCBs at or above levels of concern. The description of alternative 10 includes pressure washing the concrete floor slab. Pressure washing could potentially remove PCBs on the surface of the concrete; however, because the concrete is a porous surface, the PCBs may have migrated below the surface within

Prior to 1994, stormwater had been conveyed in the former concrete lined Lindbergh Avenue Ditch. In 1994 NASA removed that system and PCB-contaminated soils through a remedial action. The entire Lindbergh Avenue storm drain channel was backfilled to grade with clean, imported soil.

Concrete floor slab sampling conducted to date indicates that the hangar-related PCBs and lead contamination are limited to the surface and near-surface of the floor slab. The core sample results indicate that the concentration of lead (from any source) within the interior of the concrete floor slab ranges from 4.4 to 5.0 milligrams per kilogram (mg/kg). A Synthetic Precipitation Leaching Procedure (SPLP) leaching tests performed on this concrete was nondetect for lead. A PCB result for a different floor core sample was 0.0949 microgram (μg)/quantity Aroclor 1268. There are no indications from the previous investigations, available historical records, or visible staining that liquid PCB spills occurred in the hangar. By itself, the presence of PCB-containing dust that may have been deposited on the concrete floor of Hangar 1 is not a basis for additional core samples.

Groundwater beneath the hangar and sump water samples indicated that the groundwater had not been impacted by contaminants from the hangar. There are no indications that contaminants have migrated through the concrete, and therefore no reason to suspect that they may be present in the soil below the concrete.

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>the concrete. Until the Navy provides more evidence that the PCB contamination for the concrete floor slab is limited to the surface, the EPA does not agree with pressure washing as the only action for the concrete. Thus, alternative 10 does not adequately address the concrete slab. Please add core sampling of the concrete floor slab to the removal action.</p>	
<p>6S.5: The EE/CA states that Hangar 1 COCs have not contaminated groundwater at Site 29. However, this data was not included in the EE/CA report. Please revise the report to include the groundwater data. Also, the EE/CA makes statements, as on page 3-7, that the WATS treatment system will treat any pollutants from Hangar 1. This statement is incorrect. The WATS system is not designed to treat PCBs, lead, or asbestos. Thus the Navy should remove that assertion from the EE/CA.</p>	<p>6S.5: The statement included in the EE/CA was taken from the referenced November 2, 2004, letter from the Water Board. The italicized discussion that follows this statement on Page 3-7 of the EE/CA was intended to clarify that groundwater had been sampled and analyzed for Aroclor 1268. Results were below the detection limit. As the groundwater is not impacted with PCBs, there is no need for WATS to treat PCBs. Results of the grab samples taken from the Hangar 1 sump at the same time WATS sampling was performed all showed non-detects for Aroclor 1268 using EPA Method 8082.</p>
<p>6S.6: Although groundwater contamination from Site 29 COCs, pending review of the data, does not appear to be an issue at this site, there is evidence to suggest that the groundwater beneath Hangar 1 is contaminated with volatile organic compounds (VOCs). The EPA expects this VOC contamination to be addressed as part of the Navy's responsibilities for Site 28, WATS area.</p>	<p>6S.6: Comment noted.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>6S.7: The EPA appreciates that the Navy conducted a structural analysis of the removal alternatives as part of the EE/CA; however, the details of this analysis are not included in the report. Since this analysis was an important supporting document for the EE/CA, it should be included as an appendix. If the document is not appended to the EE/CA itself, the EE/CA should specifically reference where the structural analysis report can be found.</p>	<p>6S.7: The structural analysis is available in the Administrative Record and at the Information Repository. The complete Administrative Record for this site is located at 1220 Pacific Highway, San Diego, California, and is maintained by Ms. Diane Silva, 619-532-3676, Naval Facilities Engineering Command Southwest. The Information Repository is located at the Mountain View Public Library, 585 Franklin Street, Mountain View, CA 94041, telephone number: 650-903-6337.</p>
<p>6S.8: In reference to Alternative 10, there are potential safety issues related to bird nesting in the Hangar frame. The EE/CA should include the evaluation and cost analysis of measures to mitigate this potential safety hazard.</p>	<p>6S.8: Potential safety issues related to bird nesting in the hangar frame will be addressed in the remedial design work following this Action Memorandum.</p>
<p>6S.9: Boundary between Sites 25 and 29: It is unclear which Site will address ensuring the cleanup of the storm drains between the Hangar and Site 25. This EE/CA states on page 3-7 that the removal action will stop at the Hangar structure itself and that downgradient contamination will be addressed at Site 25. However, the document should explicitly identify which site will address the storm drains connecting Site 25 and Site 29.</p>	<p>6S.9: See Response to 6S.2</p>
<p>6S.10: Definition of “On-Site”: In section 3.5.1, the EE/CA defines on-site areas to be only Hangar 1. To be accurate, on-site areas include the structure as well as any adjacent areas necessary to accomplish the removal action.</p>	<p>6S.10: Comment noted.</p>
<p>6S.11: BAAQMD Reg 2, Rule 2-301: On page 3-12, the text of the EE/CA indicates that appropriate dust control measures will be in place to prevent triggering of this regulation. There is not sufficient information in the EE/CA to determine whether this is the case. The Removal Action should set forth the monitoring methodology that will be used to confirm that the action will comply with this regulation.</p>	<p>6S.11: Since dust control will be specific to the means and methods planned for construction implementation, any work plans developed for the removal action will specify the nature and type of dust control measures.</p>
<p>6S.12: BAAQMD Reg 6-311: Despite the fact that there are no production processes involved at the Hangar, BAAQMD Regulation 6-311 could be relevant and appropriate to any general operation that would release particulates. Therefore, this</p>	<p>6S.12: The current ARARs related to the Clean Air Act are considered appropriate and protective for this removal.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

regulation should be identified as an ARAR.	
<p>6S.13: California Water Code §13307.1(c): As discussed in EPA’s fourth comment above, the EE/CA explains that this removal action will not address institutional controls that may be necessary at the conclusion of the action, but rather that such controls may be addressed in a future document. Where there will be any waste left in place, institutional controls will be required at this Site, although they may be established in a follow-on action.</p>	<p>6S.13: Comment noted.</p>
<p>6S.14: The Hangar is located alongside an active runway. The Removal Action should account for any FAA regulations relevant to the removal action itself as well as the final design of the selected alternative.</p>	<p>6S.14: While Moffett Field is a federal airfield under NASA control and the FAA does not have jurisdiction over its operations, NASA has previously stated to the Navy that it follows FAA regulations. The FAA has an Obstruction Evaluation Service (OES) that provides for airfields over which it has jurisdiction evaluations and determinations of whether obstructions pose a threat to safe flight operations. OES has also issued an Advisory Circular 70/7460-1K, effective 2/1/07, covering obstruction marking and lighting. While painting the hangar certain colors is one form of obstruction marking, the Advisory Circular details two other forms of marking involving medium or high intensity flashing white obstruction lights in preference to painting a structure different colors and patterns. Hangar 1 currently has a flashing beacon. This beacon not only marks the obstruction, but also serves as an aid to pilots by telling them there is an airfield present and the type of airfield. The Navy’s planned action will leave this beacon in place. Since the Hangar 1 structure and beacon are being left intact, additional requirements are not anticipated.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>6S.15: PCB Storage for Disposal: There appears to be a typo in Table 3-5 (Page 5 of 7), misidentifying subsections of 40 CFR §761.65 that are described as potentially applicable to this action. The section identifies subsection (c)(7) which applies to liquid PCB waste as an ARAR although there is not liquid PCB waste involved in this action. But the section fails to identify the potentially applicable subsection (c)(5) which explains the frequency with which stored articles must be checked for leaks.</p>	<p>6S.15: Correction noted.</p>
---	--

<p>Written on: September 12, 2008</p>		<p>Received on: September 15, 2008</p>	
<p>From: Anthea Hartig, Ph.D., Director and Cindy Heitzman, Executive Director</p>		<p>Submitted Via: Letter submitted to Darren Newton, BRAC Environmental Coordinator, Navy BRAC PMO West</p>	
<p>Affiliation/Agency: National Trust for Historic Preservation, Western Office and California Preservation Foundation</p>			
<p>Comment 7S: On behalf of the National Trust for Historic Preservation and the California Preservation Foundation, thank you for the opportunity to comment on the Engineering Evaluation/Cost Analysis, Revision 1, for Installation Restoration Site 29, Hangar 1 Former Naval Air Station Moffett Field, Moffett Field, California (EE/CA). The Navy has pledged to seek the expertise of interested parties to ensure that the substantive requirements of the National Historic Preservation Act and 36 C.F.R., Part 800 are adequately addressed (EE/CA at 3-20).</p>		<p>Response 7S</p>	
<p>7S.1: We support the Navy's proposal to remediate contamination, <i>only when</i> such efforts are combined with appropriate mitigation of the adverse impacts to Hangar One and the Shenandoah Plaza Historic District. Adequate mitigation in requires full restoration of Hangar One to a useable form. The Navy has the responsibility to go far beyond its proposal to simply remove contaminants from the structure and fully restore the hangar for the benefit of future generations. The Navy's preferred</p>		<p>7S.1: Although the scope of the Navy's CERCLA removal action was not expanded to incorporate requirements for building improvements or code compliance in support of future reuse, the Navy has not ignored historic preservation requirements. Implementation of the selected alternative will leave the hangar in a safe condition and will not preclude</p>	

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>alternative stops far short of preservation and does not properly analyze the costs of restoration.</p>	<p>implementation of future restoration measures by the National Aeronautics and Space Administration (NASA), the federal facility operator of the former NAS Moffett Field, or others interested in potential reuse of the hangar. The Navy believes the set of historic mitigation measures selected in the Action Memorandum adequately reflect consideration of the need to preserve and protect the hangar as a cultural resource while addressing the need to respond to the release of contaminants from the structure.</p>
<p>7S.2: <u>Background</u> Built in 1932 to house U.S. Navy dirigibles, Hangar One is one of the largest remaining purpose-built hangars in the nation and a well-recognized landmark in Silicon Valley. Notable for its colossal Streamline Moderne form, Hangar One is also recognized as a pioneering site in Silicon Valley’s history of contributions to aviation, space travel, and technology research and development. It is individually eligible for the National Register of Historic Places and an anchoring contributing resource to the Shenandoah Plaza Historic District. The Navy proposed to demolish Hangar One pursuant to a non-time critical removal action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in May 2006. The Navy then perceived full demolition as the only cost-feasible solution to remediate PCB contamination in the Hangar’s siding. That proposal generated widespread opposition. The threat of destruction of this priceless resource led the National Trust to list Hangar One as one of America’s 11 Most Endangered Historic Places in 2008.</p>	<p>7S.2: Comment noted.</p>
<p>7S.3: <u>Interests of the National Trust and the California Preservation Foundation</u> The National Trust is a private, nonprofit organization chartered by Congress in 1949 to promote public participation in the preservation of our nation’s heritage, and to further the historic preservation policy of the United States. See 16 U.S.C. § 468. With the strong support of more than 283,000 members, including more than 29,000</p>	<p>7S.3: Comment noted.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>members in California, the National Trust works to protect significant historic sites and to advocate historic preservation as a fundamental value in programs and policies at all levels of government. The National Trust has seven regional offices around the country, including our Western Office in San Francisco, California, which is specifically responsive to preservation concerns in California.</p> <p>The California Preservation Foundation is a private, nonprofit membership-based organization, founded 33 years ago to educate and advocate for the preservation of historic and cultural sites throughout California. As the National Trust’s Statewide Partner in California, we nominated Hangar One to the National Trust for Historic Preservation’s 11 Most Endangered Historic Places in 2008.</p>	
<p>7S.4: A. Alternative 10 Contains an Inaccurate and Incomplete Estimate of Costs. Several costs associated with the Navy’s proposal to leave Hangar One’s frame exposed have been neglected in the Navy’s analysis. The structure is visually prominent because of its siding, doors, and windows. With these features removed there are very serious safety hazards and potential liabilities that the Navy will pass on to NASA, its current owner. NASA has provided no guarantees that it will be able to restore the structure once the Navy’s removal action is complete.</p>	<p>7S.4: The cost estimates prepared and provided in the EE/CA for each alternative are of sufficient detail for a valid comparative cost analysis of alternatives. The EE/CA cost estimates are based on standard commercial bidding practices. The costs were developed by subcontractors and vendors whose bids were premised on doing the actual work. The preparation of the estimates included Hangar 1 visits to develop detailed project approaches; detailed estimates for each alternative that included input from experienced engineers, construction managers, and subcontractors, and, subcontractor and vendor bids for specialty services, materials, and equipment.</p>
<p>7S.5: 1. <u>Air Traffic Hazard:</u> Leaving the hangar’s exposed frame will drastically reduce its visibility, posing a greater risk to flights entering and exiting from the nearby runway. The Navy has not discussed whether it has sought approval from the Federal Aviation Administration for creating this air traffic hazard. This approval could result in substantial additional costs for necessary lighting which would create additional adverse impacts to the historic fabric of this building and the historic district.</p> <p>Additionally, there are serious safety risks to pilots as the exposed frame is likely to</p>	<p>7S.5: While Moffett Field is a federal airfield under NASA control and the FAA does not have jurisdiction over its operations, NASA has previously stated to the Navy that it follows FAA regulations. The FAA has an Obstruction Evaluation Service (OES) which provides for airfields over which it has jurisdiction evaluations and determinations of whether obstructions pose a threat to safe flight operations. OES has also issued an Advisory Circular 70/7460-1K, effective 2/1/07, covering obstruction marking and lighting. While</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>become a roosting or nesting site for avian life. Moffett Field is located on the edge of the Pacific Flyway, a major corridor for migratory birds. Measures may be required to address potential risks to pilots at the nearby air field.</p>	<p>painting the hangar certain colors is one form of obstruction marking, the Advisory Circular details two other forms of marking involving medium or high intensity flashing white obstruction lights in preference to painting a structure different colors and patterns. Hangar 1 currently has a flashing beacon. This beacon not only marks the obstruction, but also serves as an aid to pilots by telling them there is an airfield present and the type of airfield. The Navy's planned action will leave this beacon in place. Since the Hangar 1 structure and beacon are being left intact, additional requirements are not anticipated.</p>
<p>7S.6: 2. <u>Seismic Vulnerability</u>: Hangar One was originally constructed to meet 1932 building codes. Since that time more stringent building requirements have been imposed. A more thorough analysis is needed as to whether the removal of siding will make Hangar One even more vulnerable to seismic activity. If so, this alternative may result in additional costs for added bracing and measures to prevent buckling of the steel frame during a seismic event.</p>	<p>7S.6: A comprehensive structural analysis and gravity, seismic, and wind vulnerability study was conducted by a qualified Navy subcontractor. This study was conducted for four of the five alternatives that were carried forward in the EE/CA for further analysis in Section 5.0. The fifth, demolition, did not require a structural analysis. The analysis of the structure for all loading did not show any deficiency in the structural elements without the siding, and therefore no retrofit was needed but some minor bracing would be required due to the local effects of wind and gravity and not due to a structural deficiency. The costs of the retrofitting and additional bracing were included in Appendix C of the EE/CA.</p>
<p>7S.7: 3. <u>Costs of Appropriate Historic Mitigation</u>: The Navy has the responsibility to leave Hangar One a useable structure. By leaving a frame of the hangar to its current owner, the Navy has not fulfilled its substantive responsibilities under the National Historic Preservation Act to avoid, minimize, or mitigate adverse effects to the Historic District. Table 5-2 of the EE/CA states that it would cost the Navy an additional \$14.91 million to re-cover the hangar with siding and replace its windows and doors. This is the bare minimum of what we consider appropriate mitigation. The Navy does not provide a breakdown of these expenses or explain</p>	<p>7S.7: Although the Navy's selected removal action results in an adverse effect to the hangar and the historic district, we believe the set of historic mitigation measures selected in the Action Memorandum adequately reflect consideration of the need to preserve and protect the hangar as a cultural resource while addressing the need to respond to the release of contaminants from the structure. The Navy's historic mitigation measures include creating and submitting a Level 1 Historic American</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>why this or other reconstruction efforts have not been included among feasible alternatives.</p> <p>Moreover, it is likely that the cost of reapplying the sheathing would be substantially less if coordinated with the removal action. The infrastructure necessary to remove the siding, windows, and doors of the hangar should be used to reapply a new visually-similar exterior. Without such coordination, the Navy leaves an excessive burden to NASA and the taxpayers.</p>	<p>Engineering Record documentation packet, recording oral histories of individuals who worked in the hangar during different eras, creating a virtual Hangar 1 interactive compact disk, inventorying and cataloguing the Hangar 1 collections contained in the Moffett Field Museum, preserving Hangar 1's man-cranes, and coating the steel frame with a protective coating similar in color to the hangar's former contaminated siding. In addition, the removal of the siding without demolishing the infrastructure leaves the hangar structural steel in place for use or improvement by NASA, the current federal facility operator, or a future property owner.</p>
<p>7S.8: B. Environmental Restoration Requires Structural Restoration</p> <p>We realize that this removal action is driven by an attempt to protect the public from hazardous materials. But the Navy has improperly prioritized the environmental component of restoration at the expense of history. True restoration requires that the Navy leave the environment it has contaminated in a useable form. Instead, the Navy intends to impose an immense liability on its current owner to locate a future tenant willing to rebuild Hangar One's exterior and interior. With its historic integrity so seriously diminished, we worry that it will be even more costly in the future to revive Hangar One's unique architectural style on the frame that remains.</p>	<p>7S.8: Comment noted.</p>
<p>7S.9: C. The Community Supports Full Restoration of Hangar One</p> <p>There is strong community support for restoration. It is the community's interest to have a building that is intact and useable. As stated by U.S. Representative Anna G. Eshoo in a June 16, 2008 letter to the Secretary of the Navy "the hangar is worth far more than the funds needed to save it." This letter was signed by 12 members of Congress.</p> <p>While the Navy considered "community acceptance" part of its evaluation criteria in the revised EE/CA, it is clear that there is little community support for leaving just the hangar's frame. At the Navy's August 26 public meeting, "most of the roughly</p>	<p>7S.9: Comment noted.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>45 people who signed up to speak...called on the Navy to fully restore the hangar, not leave it a ‘birdcage’.’¹ Since the Navy can provide no certainty that the hangar will be restored, Alternative 10 does not satisfy the community’s concerns.</p>	
<p>7S.10: D. It is Unclear How Navy Intends to Comply with NHPA and the Secretary’s Standards</p> <p>The Navy claims that mitigation measures in Alternative 10 “would be performed to substantively comply with NHPA and the Secretary of the Interior’s Standards for the Treatment of Historic Properties (36 C.F.R., Part 68) (EE/CA at 4-39.) It is not clear to us how the Navy intends to achieve compliance.</p> <p>7S.11: 1. Compliance with NHPA</p> <p>The NHPA requires that the Navy “take into account” the impact of the proposed remediation work on the Shenandoah Plaza Historic District (16 U.S.C. 470(f)). Substantively, this requires that requires the Navy to first avoid and minimize harm to an historic resource. Only when this is infeasible should cataloging and documentation measures be used to mitigate harm. The Historic District has been defined as the Area of Potential Effect for this action. The removal of Hangar One’s siding, windows, doors, and interior, as acknowledged by the Navy, would have an adverse effect on the District. The Navy’s proposed mitigation, however, barely makes up for this impact and would put the District in imminent risk of losing its National Register status.</p>	<p>7S.10, 7S.11: The Navy has determined that its selection of a removal action alternative that does not require demolition of the hangar and commitment to implement the historic mitigation measures recommended in the EE/CA appropriately reflects consideration of the need to preserve and protect the hangar as a cultural resource. The removal action maintains the frame of Hangar 1 and reflects the original hangar’s relationship to the other contributing structures within the Historic District. Maintenance of the frame along with the other recommended historic mitigation ensures the hangar and Historic District will continue to represent the hangar’s original purpose and massive visual scale while protecting human health and the environment. The remaining structure provides the opportunity for potential future adaptive reuse by NASA.</p>
<p>7S.12: Four of the Navy’s mitigation measures merely catalogue the resource’s importance to United States history. These efforts, while laudable, would have no measurable impact on minimizing harm to the integrity of the District. The immensity of Hangar One can never be truly represented by photographs and pictures. Preservation of the hangar’s man-cranes would be done at no additional expense. In fact, these cranes would only be preserved as a matter of convenience as they would be used to enable the proposed remediation work.</p>	<p>7S.12: Man-crane preservation is only for historic purposes. The cranes themselves would not be used to enable remediation work since their condition and safety features are not adequate for worker protection. They are being preserved for possible donation to the Moffett Field Museum.</p> <p>Furthermore, the Navy believes the set of historic mitigation measures selected in the Action Memorandum adequately reflects consideration of the need to preserve and protect the hangar as a cultural resource while addressing the need to</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

	respond to the release of contaminants from the structure.
<p>7S.13: The only mitigation that purports to reduce the dramatic visual effect associated with the proposal would be to (1) match or replacing Hangar 1 exterior features with coatings or materials similar in color and appearance to the original hangar; and (2) coat the exposed steel frame with a protective coating similar in color to the former siding. The purpose of these efforts, however, is unclear. As acknowledged in the EE/CA Alternative 10 is “not a permanent solution.” (EE/CA at 5-5). It is unrealistic to assume that coloring the frame of a structure could undo even part of the visual impact that would occur by removing its siding. Moreover, since the original frame was never colored it raises the question of whether such action would conform with the Secretary’s Standards. Clearly delineating the color types and color boundaries would be much more useful when the Navy has a plan in place to fully restore the structure.</p>	<p>7S.13: Comment noted.</p>
<p>7S.14: 2. Compliance with the Secretary’s Standard It remains unclear how the Navy intends to satisfy the Secretary’s Standards. These standards cover the Preservation, Rehabilitation, Restoration, and Reconstruction of Historic Structures. There is no indication that the Navy intends to do anything which complies with these Standards at Hangar One. Therefore, specific standards that will be utilized need to be addressed. We do expect, however, that HAER documentation will be conducted by qualified historic preservation professionals and that an Historic Structures Report will be prepared.</p>	<p>7S.14: The Navy substantively complied with the NHPA for this CERCLA removal action by actively seeking the expertise and comments of the California Office of Historic Preservation, the Advisory Council on Historic Preservation, and other interested parties. The Navy met and discussed alternatives, adverse effects, and historic mitigation measures with OHP, ACHP, and other stakeholders throughout the CERCLA removal action planning process. The removal action maintains the frame of Hangar 1 and reflects the original hangar’s relationship to the other contributing structures within the Historic District. Maintenance of the frame, along with the other recommended historic mitigation, ensures the Historic District will continue to represent the hangar’s original purpose and visual scale while protecting human health and the environment. The historic mitigation measures proposed in the EE/CA and selected in the Action Memorandum adequately reflect consideration of the</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

	<p>need to preserve and protect the hangar as a cultural resource while addressing the need to respond to the release of contaminants from the structure.</p> <p>A HAER report for Hangar 1 has been prepared by a qualified person with the costs funded by the federal government.</p> <p>A copy of the HAER Report will be included in the Administrative Record and the Information Repository.</p>
<p>7S.15: <u>Conclusion</u></p> <p>The Navy would leave NASA and the public with a structure that is not functional, not useable, and puts an additional burden on taxpayers to raise funds for its renewal. We believe it is the Navy’s responsibility to do this work and hope the Navy will complete its responsibility to fully mitigate the impacts of the remediation. Indeed, the best way to commemorate the Navy’s technological achievements at Hangar One is to leave it in tact for future generations.</p> <p>As your preservation partners, we look forward to working with you to assure that Hangar One is ultimately protected to give the public the benefit of understanding its place in local and national history.</p>	<p>7S.15: The selected alternative leaves the hangar structural steel in place for use or improvement by NASA, the current federal facility operator, or a future property owner.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

Written on: September 9, 2008		Received on: September 9, 2008	
From: Kevin Woodhouse, Assistant to the City Manager Nadine P. Levin, Assistant City Manager Kevin C. Duggan, City Manager		Submitted Via: Letter Report submitted to Darren Newton, BRAC Environmental Coordinator, Navy BRAC PMO West	
Affiliation/Agency: City of Mountain View (Council Report)			
Comment 8S: 8S.1: <u>RECOMMENDATION</u> Authorize the Mayor to send a letter of comment to the United States Navy regarding the Hangar 1 Engineering Evaluation/Cost Analysis Revision 1 report. 8S.2: <u>FISCAL IMPACT</u> There is no fiscal impact directly associated with approval of the recommendation. 8S.3: <u>BACKGROUND AND ANALYSIS</u> The United States Navy released the Hangar 1 Engineering Evaluation/Cost Analysis (EE/CA) Revision 1 report for public comment on July 30, 2008. This EE/CA revises the earlier EE/CA released by the Navy in May 2006. The purpose of the EE/CA is to establish clean-up goals, analyze and compare clean-up alternatives and their costs, and identify the Navy's preferred alternative. The public comment period on the EE/CA ends September 13, 2008 and the Navy anticipates issuing its final decision-making document concerning the hangar by sometime during Fall 2008. Hangar 1 is contaminated with polychlorinated biphenyls (PCBs), lead and asbestos in its exterior siding and PCBs and lead in the paint on the interior structural steel. In a significant change from the first EE/CA, which recommended demolition of the hangar, the Navy's preferred alternative is to remove and dispose of the hangar's contaminated siding and encapsulate the contaminated paint on the		Response 8S 8S.1, 8S.2, 8S.3: Comment noted.	

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>structural steel framework with art epoxy coating⁴ leaving the framework and floor of the hangar in place. The EE/CA states that this alternative best meets the criteria of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) because it, among other reasons:</p> <ul style="list-style-type: none"> • “Provides a high degree of long-term protection of the public and the environment because the PCBs in Hangar 1 siding and associated interior components would be removed, and the remaining PCBs in structural steel paint would be contained”; • “Imposes minimal restrictions on future use of the site and provides a frame that could be used for future development.” (EE/CA, p. 6-1) <p>Attachment 1 is an excerpt from the EE/CA that further describes the recommended alternative, which is estimated to cost approximately \$26 million.</p>	
<p>8S.4: <u>Current City Position</u> In October 2005, the City Council adopted the following position statement: “Federal funding for Hangar 1’s remediation should not be limited to removing the source of contamination but should also be made available for any reconstruction of the hangar necessary to make it habitable and code-compliant so it can be used for a future public use.”</p> <p>8S.5: In June 2006, following release of the previous EE/CA, the City Council adopted the following additional position statement: “The City of Mountain View opposes demolition of Hangar 1 at Moffett Federal Airfield. The Navy should clean up AND restore the hangar so environmental contamination issues from PCBs, lead and asbestos on the exterior and in the interior of the hangar are no longer an impediment for potential future use.”</p>	<p>8S.4, 8S.5: The Navy’s primary responsibility in conducting the cleanup action is to reduce risks to human health and the environment associated with the release or potential release of hazardous substances present in the construction materials of Hangar 1. Structural or building improvements necessary for code compliance or a change in reuse is beyond the scope of the Navy’s cleanup action. The selected alternative leaves the hangar structural steel in place for use or improvement by NASA, the current federal facility operator, or a future property owner.</p>
<p>8S.6: In addition to other process-related comments, the City’s June 30, 2006 comment letter to the Navy (Attachment 2) recommends that the Navy select Alternative 10, siding removal and disposal, clean up of the structural steel and</p>	<p>8S.6: Comment noted.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>replacement with new siding as historic mitigation. The difference between these 2005 and 2006 City Council position statements and the Navy’s current recommended alternative is that the Navy’s historic mitigation measures stop short of replacement with new siding. According to the Navy, residing, code-compliance and future reuse of the hangar are decisions for NASA Ames, the current owner of the hangar.</p>	
<p>8S.7: The EE/CA estimates that residing the hangar would cost approximately \$14.9 million (EE/CA, p. 5-6). The EE/CA does not estimate the cost of additional code-compliance following residing.</p> <p><u>Historic Mitigation Measures</u></p> <p>The Navy has stated that any clean-up actions must meet the substantive requirements of the National Historic Preservation Act (NHPA). The Navy has consulted with the State Historic Preservation Office and the Federal Advisory Council on Historic Preservation concerning historic mitigation. Although the Navy’s recommended level of historic mitigation includes architectural drawings and other historic documentation, photographs, oral history, a virtual interactive CD, preservation of the man-cranes and painting of the steel structure to match the original siding, they are not recommending replacement of the siding.</p> <p><u>Recommended Comments</u></p> <p>Staff recommends the following comments for Council approval regarding the Hangar 1 Engineering Evaluation/Cost Analysis Revision 1 report:</p> <ol style="list-style-type: none"> 1. Reiterate the City’s current position that the Navy clean up AND restore the hangar with replacement of siding as historic mitigation and bringing the hangar into code-compliance. 	<p>8S.7: Building improvements to make an older structure current code compliant are beyond the scope of the Navy’s environmental cleanup, which must be conducted according to a remedy selection process specified in regulations issued under CERCLA. The selected alternative leaves the hangar structural steel in place for use or improvement by NASA, the current federal facility operator, or a future property owner.</p>
<p>8S.8: 2. Request that the Navy provide specific details behind the EE/CA’s \$14.9 million cost estimate for residing the hangar.</p>	<p>8S.8: Each removal action alternative was evaluated in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan Regulations. The cost estimates prepared and provided in the EE/CA for each alternative are of</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

	sufficient detail for a valid comparative cost analysis of alternatives.
8S.9: 3. Encourage the Navy, in the event they choose not to select replacement of siding as historic mitigation or not to bring the hangar into code-compliance, to work cooperatively with NASA during the Remedial Design and Implementation phases of the project to accommodate project efficiencies that might be achieved for NASA's efforts to evaluate, make decisions and implement residing of the hangar and code upgrades. For example, there may be significant cost savings if scaffolding or other construction equipment can be shared between siding removal and siding replacement, as well as for electrical or mechanical code upgrades.	8S.9: Comment noted.
8S.10: 4. Request that the Navy assess in greater detail any potential negative effects of the structural framework being left open to the elements, such as, but not limited to, bird nesting and potential safety impacts for aircraft safety, potential deterioration to the hangar's floor and potential corrosion of any mechanical members related to the hangar's doors.	8S.10: The s epoxy coating selected is designed for exterior application and is well suited to this use. Potential safety issues related to bird nesting in the hangar frame will be addressed in the remedial design work following this Action Memorandum.
8S.11: 5. Request that the Navy commit to testing the recoating of the structural steel more frequently than every five years to ensure containment of the PCBs.	8S.11: Based on the expected life span of the weather-resistant epoxy coating to be applied to the hangar's structural steel, inspections and touch-ups every 5 years and a recoating every 10 years are adequate. Once the removal action is complete, a monitoring and maintenance plan will be developed to ensure the coating's integrity.

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>8S.12: 6. Request that the Navy further evaluate the epoxy-penetrant remediation process used by Thomarios Corporation for the inside of Hangar 1's sister hangar in Akron, Ohio, in case this process might provide a feasible alternative for remediating the inside and outside of Hangar 1 without removing the siding.</p>	<p>8S.12: Thomarios was awarded a portion of the Akron Airdock Interior Cleaning and Coating Project. Their approach was to remediate the PCB dust by vacuuming the steel structure as well as catwalks and other interior items and then coating the steel to encapsulate the PCBs in the paint. Thomarios did not perform any work on the exterior of the Akron Airdock. Navy representatives visited the Akron hangar several times and corresponded regularly with the Lockheed remediation group. The approach in Akron was considered during the EE/CA process. The Navy spent more than 2 years evaluating the 13 exterior alternatives and 4 interior alternatives during the EE/CA process. Four of the alternatives for the exterior were coating alternatives that received a complete evaluation in the EE/CA. Two additional coatings were briefly investigated based on public comments, but were determined not to be feasible. The coating alternatives were all evaluated with the assistance of the actual coating manufacture's representatives and coating application professionals. They were evaluated for life span, adherence, and color options. All of the alternatives for the interior used different coatings. The Navy plans to pressure wash the structural steel prior to coating and capture the runoff to ensure all of the dust is removed. The Navy believes this combined approach is the best remediation solution for Hangar 1.</p>
<p>8S.13: Attachment 3 is a draft letter of comment from the Mayor to the Navy based on the above recommended comments. This letter will be revised and finalized based on Council's input and submitted to the Navy before the September 13, 2008 EE/CA public comment period deadline.</p> <p><u>Next Steps Concerning Reuse of Hangar 1</u></p>	<p>8S.13: Comment noted.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>In a regular quarterly meeting between NASA Ames and the Cities of Sunnyvale and Mountain View on Tuesday, September 2, 2008, NASA Ames Center Director Pete Worden told the Mayor, Vice Mayor, City Manager and staff from Mountain View as well as Sunnyvale representatives that NASA Ames will be providing more information in the near future (possibly within a month) about potential partnerships for replacement of the hangar's siding. In addition, the Center Director indicated his commitment to a reuse decision-making process that will be very public and involve the community and the Cities of Mountain View and Sunnyvale, in order to determine a future use that is consistent with NASA's mission.</p> <p>Attachment 4 is a letter sent to the City Council on August 14, 2008 from the community-based Save Hangar One Committee (SHOC) that raises the idea of a multi-agency and community process for investigating possible future uses of the hangar. SHOC's recommendation suggests a process similar to the "Joint Cities of Mountain View and Sunnyvale Community Advisory Committee on Moffett Federal Airfield" established in 1996. It is recommended that the City await further information from NASA Ames before engaging this topic in order to allow for coordination and cooperation with NASA Ames.</p>	
<p>8S.14: CONCLUSION</p> <p>Although the Navy's recommended alternative to remediate Hangar 1 and leave the steel framework standing is closer to the City's position statements than demolition, their preference to not replace the siding nor to perform any code compliance upgrades for future reuse remains inconsistent with the City's existing positions on the hangar. The comments recommended by staff on the EE/CA reiterate the City's existing positions and request additional information from the Navy that would be useful to all of the agencies and community members interested in the restoration and future reuse of Hangar 1.</p>	<p>8S.14: Comment noted.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

Written on: August 26, 2008	Received on: August 26, 2008
From: Brian Turner	Submitted Via: Oral comment at public meeting
Affiliation/Agency: Attorney with the western office of National Trust for Historic Preservation	
<p>Comment 9S: My name a Brian Turner. I'm an attorney with the western office of the National Trust for Historic Preservation on behalf of whom I speak tonight. The National Trust is a private nonprofit membership organization dedicated to saving historic places and revitalizing America's communities. We have more than 280,000 members nationwide and more than 30,000 members in California. Hangar 1 is an irreplaceable resource. It has unique architectural significance and is widely known for its contributions to the nation's military and aviation history. It is individually eligible for the National Register of Historic Places and anchoring contributing resource to the Moffett Field historic district. The National Trust has helped focus national attention on the current threats to Hangar 1. This year we listed the structure as one of America's 11 most endangered places. Nothing to celebrate, I suppose, but we have been hugely impressed with the degree of community support for the hangar. The nomination stemmed largely because of the Navy's first EE/CA which recommended the hangar's complete demolition. We thank the Navy for reconsidering its original decision in the revised EE/CA now under public review, but the Navy's proposed alternative differs little from its first recommendation. With its siding and interiors stripped, the slow deterioration of Hangar 1 is virtually inevitable.</p>	<p>Response 9S: Comment noted.</p>
<p>9S.1: We fear that a frame standing alone will be vulnerable to seismic activity, useless to the public and prospective tenants, and rendered extremely costly to rehabilitate. We hope that adaptive reuse remains the end goal. The EE/CA at page 5.5 concludes that no alternative is a permanent solution that will leave the hangar in place. The proposed action strongly discourages this.</p>	<p>9S.1: A comprehensive structural analysis and gravity, seismic, and wind vulnerability study was conduct by a qualified Navy subcontractor. This study was conducted for the four of the five alternatives that were carried forward in the EE/CA for further analysis in Section 5.0. The fifth, demolition, did not require a structural analysis. The analysis of the structure for all loading</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

	<p>did not show any deficiency in the structural elements without the siding, and therefore no retrofit was needed but some minor bracing would be required due to the local effects of wind and gravity and not due to a structural deficiency. The costs of the retrofitting and additional bracing were included in Appendix C of the EE/CA.</p>
<p>9S.2: The Navy's proposal presents a classic chicken-or-the-egg dilemma, claiming that rehabilitation is impossible without external financial support but leaving a mere structural skeleton where it will be impossible to generate that support.</p>	<p>9S.2: Comment noted.</p>
<p>9S.3: The rich heritage of the United States and the region, as well as the public, deserve more creative thinking. For instance, one plausible way to generate revenue for the cleanup is to retain the siding and use it for advertising space. This would be an implicit benefit of Alternative 6 and is not discussed in the Navy's analysis.</p>	<p>9S.3: NASA is the current federal facility operator, and as such it retains the responsibility for all future use decisions.</p>
<p>9S.4: Additionally, we take issue with the Navy's conclusion that Alternative 10 complies with all the ARARs and in particular the National Historic Preservation Act. The proposed mitigation is insignificant in light of the — in potential impacts to the resource. An HPA [an NHPA] requires the Navy to first avoid and minimize harm to a historic resource. Only when these efforts are truly impossible should cataloguing and documentation measures be used to mitigate harm. Lastly, we'd like to point out that the draft EE/CA on the Navy's Web site provides one link for a 20-megabyte document. It's extremely difficult for the public to access. We ask that you encourage public review by segmenting the document into a management format. As your preservation partner, we look forward to working with you to ensure that Hangar 1 is ultimately protective so future generations will have the benefit of understanding its place in local and national history. Thank you.</p>	<p>9S.4: The Navy substantively complied with the NHPA for this CERCLA removal action by actively seeking the expertise and comments of the California Office of Historic Preservation, the Advisory Council on Historic Preservation, and other interested parties. The Navy met and discussed alternatives, adverse effects, and historic mitigation measures with OHP, ACHP, and other stakeholders throughout the CERCLA removal action planning process. The historic mitigation measures proposed in the EE/CA and selected in the Action Memorandum adequately reflect consideration of the need to preserve and protect the hangar as a cultural resource while addressing the need to respond to the release of contaminants from the structure.</p> <p>Input and recommendations provided by the Advisory Council on</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

	<p>Historic Preservation, the State Historic Preservation Office, and others concerned about historic preservation had a significant impact on the Navy's evaluation of alternatives under CERCLA. The EE/CA was segmented into chapters and re-posted on the Navy's web site as recommended.</p>
--	---

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

Written on: August 26, 2008	Received on: August 26, 2008
From: Peter Strauss	Submitted Via: Oral comment at public meeting
Affiliation/Agency: Technical Advisor for the Center of Public Environmental Oversight, Member of the RAB	
Comment 10S: I'm Peter Strauss. I am a resident of San Francisco. I'm a consultant. I am a technical advisor for the Center for Public Environmental Oversight, member of the RAB. I've worked on Moffett probably since my hair was black. I'll be submitting some written comments, but I'd like to take this opportunity to address some important observations. And from a personal point of view, I support the cause for the full restoration of the hangar.	Response 10S
10S.1: It's always puzzled me that the Navy has not embraced the idea of creating a monument to its past and leaving the community with something for the future.	10S.1: NASA is the current federal facility operator and retains the responsibility for all future use decisions.
10S.2: Now, if you —— and I don't think, Darren, you recall, 'cause you —— I think you were not here —— about process when in 2004 the Navy submitted a work plan for a remedial investigation and feasibility study. After much discussion and almost adjudication with EPA, the Navy came back and said they will prepare an EE/CA, but the Navy promised that it will be a robust EE/CA. If I had the foresight then when this was promised, I would have asked the Navy to be more specific. Unfortunately, I did not. But I will tell you that this is not what I envisioned as the primary decision-making document for Hangar 1.	10S.2: The Navy has thoroughly evaluated 13 alternatives for the exterior and 4 for the interior. The Navy went far beyond the USEPA guidelines for developing an EE/CA for Hangar 1 when, through years of receiving public input and suggestions, it expanded the number of alternatives and sub-alternatives evaluated including those presented in the EE/CA. Consequently, the Navy spent more than 2 years evaluating remedial options, their effectiveness, and their costs. The alternatives in the Final EE/CA represent the fullest and best set of options to address the contamination.
10S.3: There are important details left out, some of which have already been talked about. These include the structure analysis, the adverse effects assessment, and very spec—— particulars of the cost estimate. I have 30 seconds. Then I ——	10S.3: The structural analysis is available in the Administrative Record and at the Information Repository. The complete Administrative Record for this site is located at 1220 Pacific Highway, San Diego, California, and is maintained by Ms. Diane

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>— you know, I'm going to submit my comments. Thank you.</p>	<p>Silva, 619-532-3676, Naval Facilities Engineering Command Southwest. The Information Repository is located at the Mountain View Public Library, 585 Franklin Street, Mountain View, CA 94041, telephone number: 650-903-6337.</p> <p>The cost estimates prepared and provided in the EE/CA for each alternative are of sufficient detail for a valid comparative cost analysis of alternatives.</p>
--	--

<p>Written on: August 26, 2008</p>	<p>Received on: August 26, 2008</p>
<p>From: Kevin Woodhouse</p>	<p>Submitted Via: Oral comment at public meeting</p>
<p>Affiliation/Agency: City of Mountain View Assistant to the City Manager and Staff Representative to the Moffett Restoration Advisory Board</p>	
<p>Comment 11S: I'll be speaking on behalf of Mountain View City councilmember Jack Siegel and council member Ronit Bryant who were here earlier and had to leave. My name is Kevin Woodhouse. I'm the City of Mountain View assistant to the city manager and staff representative to the Moffett Restoration Advisory Board. What I wanted to do is announce that on Tuesday, September 9th, the Mountain View City Council will be taking up once again the discussion of Hangar 1 and providing additional comments to augment the comments that they had provided up to four or five times over previous years. That's a regular city council meeting on September 9th, Tuesday, Mountain View City Hall at 500 Castro Street. I also wanted to reiterate for the record, the existing Mountain View City position, which consists of several components, complete environmental restoration of the hangar, preservation of the hangar, and full federal funding for restoration with visually accurate siding of the hangar so that it's ready for whatever reuse is determined for the future. Thank you.</p>	<p>Response 11S: The manner in which the Navy will conduct the cleanup action will not preclude implementation of future restoration measures by NASA, the federal facility operator of the former NAS Moffett Field, or others interested in potential reuse of the hangar. The cleanup action will leave the Hangar 1 frame standing to allow for improvements and future reuse. The Navy's primary responsibility in conducting the CERCLA removal action is to reduce risks to human health and the environment associated with the release or potential release of hazardous substances present in the construction materials of Hangar 1. Future use of Hangar 1 requiring structural or building improvements are beyond the scope of the Navy's CERCLA action.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

Written on: September 16, 2008	Received on: September 16, 2008
From: Elizabeth Wells	Submitted Via: Letter submitted to Darren Newton, BRAC Environmental Coordinator, Navy BRAC PMO West
Affiliation/Agency: Water Board	
<p>Comment 12S: I reviewed the July 30, 2008, <i>Engineering Evaluation/Cost Analysis, Revision 1</i> (EE/CA). My comments are presented below.</p> <p>General Comments</p> <p>12S.1: 1. I concur that the five removal action alternatives (2, 4, 6, 10, and 11) retained by the Navy for the comparative analysis meet the effectiveness criteria. As such, each of these alternatives would be protective of human and ecological health, water quality, and the environment if implemented, monitored, and maintained as described in the EE/CA. Four of the alternatives (2, 4, 6, and 10) require on-going monitoring and maintenance for the life of the structure so that chemicals remaining in place are properly encapsulated. One alternative (11) completely removes the structure (i.e., demolition) and the chemicals of concern.</p>	<p>Responses to General Comments</p> <p>12S.1: Comment noted.</p>
<p>12S.2: 2. Clarify how the Navy will incorporate the community's concerns, as voiced at the August 26, 2008, public meeting and September 11, 2008, Restoration Advisory Board meeting, into its removal action selection decision. The EE/CA states that community acceptance is one of the criteria used to evaluate implementability of removal action alternatives. Comments voiced by the public at these meetings suggest the community does not support the Navy's recommended alternative (Alternative 10), which includes removing the siding and coating the structural steel frame.</p>	<p>12S.2: As noted in the EE/CA, community acceptance is an evaluation criterion relevant to an assessment of the implementability of alternative removal actions. This assessment involves taking into account which components of the alternatives interested persons in the community support, have reservations about, or oppose. Specifically, the Navy has taken comments provided on the EE/CA into consideration in arriving at its final decision on the removal action alternative and historic mitigation measures. The Navy selected an alternative at the conclusion of the public participation activities and has documented that decision in this Action Memorandum. Responses to significant</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

	<p>comments on the EE/CA are attached as an appendix in this Action Memorandum.</p>
<p>12S.3: 3. Lead and asbestos are chemicals of concern in addition to PCBs. All three chemicals are present in building materials at elevated concentrations that could pose unacceptable risks to human and ecological health, water quality, and the environment.</p>	<p>12S.3: Although PCBs are the regulatory driver for this removal action, asbestos and lead are also present in interior and exterior Hangar 1 building materials. Building materials containing asbestos and lead that are in good condition and not subject to disturbance may generally be left in place per USEPA and Department of Defense policy. However, in the course of addressing the PCB contamination at Hangar 1, it will be necessary to take into account health and safety issues associated with handling and working in the vicinity of materials containing asbestos and lead and to comply with requirements for proper management, abatement, or disposal of asbestos and lead as hazardous materials.</p>
<p>12S.4: 4. Clarify to what Installation Restoration (IR) site (25 or 29) the storm drains belong. Further, explain how the storm drain system (piping, catch basins, and trench around the hangar) and surrounding media (soil and groundwater) will be included in the investigation and remediation process for its assigned IR site. The storm drains are the conduit through which contaminated sediment was transported from Site 29 (Hangar 1) to Site 25. To date, no investigation of the storm drain system and surrounding soil and groundwater has been conducted. Contaminated sediment could migrate into the subsurface from storm drain catch basins and piping.</p> <p>12S.5: 5. Soil samples must be collected from around and beneath the hangar to investigate whether soil contains the chemicals of concern (PCBs, metals, and asbestos) identified in the building materials. The area around the hangar was not paved when the structure was constructed¹. Building materials and paint containing PCBs and metals could have been deposited onto the ground surface during construction.</p>	<p>12S.4, 12S.5, 12S.6:</p> <p>Confirmation sampling will be conducted as part of the removal action in the unpaved areas adjacent to the hangar.</p> <p>In 1994 NASA constructed a below-grade storm sewer, including the settling basin at the south edge of the Eastern Diked Marsh. This system is monitored and controlled under NASA's stormwater permit with the Water Board. The settling basin, located at the outfall of the stormwater drainage system, allows for collection of sediments in the stormwater. The sediment can then be dried and removed from the basin. This settling basin helps prevent contaminated sediment from entering the Eastern Diked Marsh and the stormwater retention pond.</p> <p>Prior to 1994, stormwater had been conveyed in the former concrete-lined Lindbergh Avenue Ditch. In 1994 NASA removed that system and PCB contaminated soils through a remedial</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

12S.6: 6. Although the text specifically states that institutional controls and groundwater impacts are outside the scope of the removal action, it is important to acknowledge these issues in the EE/CA. Institutional controls will be necessary to limit exposure to chemicals left in place. Because groundwater beneath the hangar contains volatile organic compounds, vapor intrusion is a potential concern at the site and could require mitigation and/or institutional controls.

action. The entire Lindbergh Avenue storm drain channel was backfilled to grade with clean, imported soil.

Concrete floor slab sampling conducted to date indicates that the hangar-related PCBs and lead contamination are limited to the surface and near-surface of the floor slab. The core sample results indicate that the concentration of lead (from any source) within the interior of the concrete floor slab ranges from 4.4 to 5.0 milligrams per kilogram (mg/kg). Synthetic Precipitation Leaching Procedures (SPLP) leaching tests performed on this concrete was non-detect for lead. A PCB result for a different floor core sample was reported at 0.0949 microgram (μg)/quantity Aroclor 1268. There are no indications from the previous investigations, available historical records, or visible staining that liquid PCB spills occurred in the hangar. By itself, the presence of PCB-containing dust that may have been deposited on the concrete floor of Hangar 1 is not a basis for additional core samples.

Groundwater beneath the hangar and sump water samples indicated that the groundwater had not been impacted by contaminants from the hangar. There are no indications that contaminants have migrated through the concrete, and therefore no reason to suspect that they may be present in the soil below the concrete.

Additionally, normal construction practices and pictures taken during construction of the hangar indicate that the foundation and floor were constructed prior to building the hangar. Therefore, construction debris would not be present under the slab.

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

Specific Comments	Responses to Specific Comments
<p>12S.7: 1. Section 2.2: Clarify why the structural steel surface is considered a porous surface under TSCA². According to 40 Code of Federal Regulations (CFR) 761, porous surface “means any surface that allows PCBs to penetrate or pass into itself including, but not limited to, paint or coating on metal; corroded metal; fibrous glass or glass wool; unglazed ceramics; ceramics with a porous glaze; porous building stone such as sandstone, travertine, limestone, or coral rock; low-density plastics such as styrofoam and low-density polyethylene; coated (varnished or painted) or uncoated wood; concrete or cement; plaster; plasterboard; wallboard; rubber; fiberboard; chipboard; asphalt; or tar paper.” By this definition, the paint on the structural steel is a porous surface and the steel is not.</p>	<p>12S.7: By application of the paint to the steel and its adhesion to the steel, the surface is now considered porous whereas bare steel would be nonporous.</p>
<p>12S.8: 2. Sections 2.2 and 2.2.1 and Table 2-1: Additional concrete core sampling must be conducted as part of the removal action to evaluate the concentrations of PCBs in the concrete. The concrete floor is a porous surface under TSCA (see definition above). The wipe sampling conducted and collection of one concrete sample for approximately 348,000 square feet (8 acres) of concrete floor is not sufficient to determine if the concrete floor is contaminated.</p>	<p>12S.8: See response to 12S.5</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>12S.9: Section 3.2: The removal action objective is to prevent migration of all chemicals of concern (PCBs, lead, and asbestos) from Hangar 1 to the environment.</p>	<p>12S.9: Although PCBs are the regulatory driver for this removal action, asbestos and lead are also present in interior and exterior Hangar 1 building materials. Building materials containing asbestos and lead that are in good condition and not subject to disturbance may generally be left in place per USEPA and Department of Defense policy. However, in the course of addressing the PCB contamination at Hangar 1, it will be necessary to take into account health and safety issues associated with handling and working in the vicinity of materials containing asbestos and lead and to comply with requirements for proper management, abatement, or disposal of asbestos and lead as hazardous materials.</p>
<p>12S.10: 4. Section 3.5.4.1: Correct the discussion regarding the TCLP and TTLC³. The TCLP is an analytical method; results are compared to a toxicity characteristic to determine if a material is a hazardous waste or is non-hazardous under RCRA⁴. The TTLC is a concentration limit to which total concentration of a specific chemical is compared to determine if a waste is a hazardous waste or is non-hazardous under California regulations. Testing by the TCLP is not tied to the TTLC as described in the text.</p> <p>5. Section 3.5.4.2:</p> <p>12S.11: a. State Resolutions 92-49 and 68-16: I concur that the State disagrees with the Navy's determination that Resolutions 92-49 and 68-16 are not ARARs⁵ for this removal action, as stated in the last paragraph on page 3-17.</p> <p>12S.12: b. Water Code Section 13304(a): I disagree with the Navy's assessment that Water Code Section 13304(a) is not an ARAR. As stated in the Water Board's June 28, 2006, letter to the Navy, Section 13304(a) not only sets out the procedure for enforcement, it also grants the Water Board authority to require remediation when there is a discharge or threatened discharge into Waters of the State.</p> <p>12S.13: c. Water Code Section 13307.1(c): Because the removal action does not</p>	<p>12S.10, 12S.11, 12S.12, 12S.13: Comment noted.</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

<p>include institutional controls, Section 13307.1(c) does not pertain. However, if chemicals are left in place and/or are present in soil beneath and around the structure, land use restrictions or institutional controls will be required at the site. The Navy must address institutional controls and land use restrictions in a future document.</p>	
<p>12S.14: 6. Section 4.5: The analysis of the effectiveness of each alternative must address all three chemicals of concern, not just PCBs. If the alternative addresses lead and asbestos concurrently with PCBs, state that at the beginning of the text.</p>	<p>12S.14: See response to 12S.9.</p>
<p>12S.15: 7. Section 4.7.3: Clarify how the interior coating (on frame and siding) will be monitored and maintained if (and when) internal construction is conducted. Specifically, describe how the coating will be inspected and maintained if access to the interior of the siding and the frame is limited.</p>	<p>12S.15: Internal construction is not part of the Navy’s CERCLA removal action work. If internal construction is conducted in the future, monitoring and maintenance requirements would be included in plans associated with that construction work.</p>
<p>12S.16: 8. Section 5.1.1: Because the structural analysis details are not presented in the text, include a copy of the report prepared by Exeltech as an appendix to the EE/CA.</p> <p>If you have any questions, you can contact me via phone at (510) 622-2440 or e-mail at ewells@waterboards.ca.gov.</p> <p>1- Personal communication between Elizabeth Wells, Water Board, and Donald Chuck, NASA, September 8, 2008. 2 TSCA=Toxic Substances Control Act 3 TCLP=Toxic Characteristic Leaching Procedure and TTLC=Total Threshold Limit Concentration, California Code of Regulations, Title 22, Section 66261.24. 4 RCRA=Resource Conservation and Recovery Act 5 ARARs=applicable or relevant and appropriate requirements</p>	<p>12S.16: The structural analysis (Exeltech 2008) is available in the Administrative Record and at the Information Repository. The complete Administrative Record for this site is located at 1220 Pacific Highway, San Diego, California, and is maintained by Ms. Diane Silva, 619-532-3676, Naval Facilities Engineering Command Southwest. The Information Repository is located at the Mountain View Public Library, 585 Franklin Street, Mountain View, CA 94041. Telephone Number: 650-903-6337</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

Written on: October 6, 2008	Received on: October 6, 2008
From: Chairman John L. Nau, III	Submitted Via: Letter submitted to Mr. Donald C. Winter, Secretary of the Navy
Affiliation/Agency: Advisory Council on Historic Preservation	
<p>Comment 13S: In accordance with Section 106 of the National Historic Preservation Act (NHPA), I am writing to convey to you the final comments of the Advisory Council on Historic Preservation (ACHP) on the proposed Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) removal action at Installation Restoration Program Site 29 (Hangar 1) at the former Naval Air Station Moffett Field, California.</p> <p>Background Pursuant to CERCLA, the Navy is proposing a Non-Time Critical Removal Action at Hangar 1. The siding on Hangar 1 is commercially known as Robertson Protected Metal and contains polychlorinated biphenyls (PCBs), the regulatory driver for this clean up action, and asbestos. The siding is believed to be a source of contamination in the Moffett stormwater settling basin.</p> <p>Asbestos and lead are also present in interior and exterior Hangar 1 building materials. In its Engineering Evaluation/Cost Analysis (EE/CA), dated July 2008, the Navy considers several removal alternatives to achieve its CERCLA responsibility and recommends the preferred removal action alternative as Alternative 10, removing the panels containing the hazardous substances and coating the exposed surfaces of the structure. This removal action would include the demolition of interior rooms within the hangar, removal of the corrugated metal siding and roof material from the hangar, and application of an epoxy coating on the remaining steel frame.</p> <p>Hangar 1 is individually eligible for listing on the National Register of Historic</p>	<p>Response 13S: The Navy appreciates receiving ACHP's final comments on the proposed action and acknowledges the importance of pursuing a collaborative course of action in regard to its CERCLA undertaking that supports NASA's responsibility to manage and maintain the hangar in a way that considers the preservation of its cultural value in compliance with the National Historic Preservation Act.</p> <p>The Navy has provided NASA written information pertaining to the selected removal action efforts and implementation schedule. While NASA has not identified a reuse for the Hangar at this time, they are committed to sharing information with the Navy on its planned reuse efforts as it progresses. Both agencies are striving to coordinate efforts in a manner consistent with ACHP's recommendation. The Navy and NASA are also intending to finalize a formal agreement with regard to all environmental responsibilities at the former NAS Moffett Field in early 2009.</p> <p>Based on the expected life span of the weather-resistant epoxy coating to be applied to the hangar's structural steel, inspections and touch-ups every 5 years and a recoating every 10 years provides the necessary protection to prevent deterioration. Once the removal action is complete, a monitoring and maintenance plan will be developed to ensure the coating's integrity.</p> <p>The manner in which the Navy will conduct the environmental</p>

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

Places (NRHP) under Criterion A for its association with a significant episode in the development of naval aviation prior to World War II and Criterion C as an example of early twentieth-century military planning, engineering, and construction in the Streamline Moderne architectural style. Hangar 1 is also a contributing element to the United States Naval Air Station Sunnyvale, California-Historic District, which is a nationally significant historic property listed on the NRHP in 1994. The historic district is significant under Criterion A for its association with the Lighter-than-Air program and the contributions that program made to history under the themes of coastal defense and naval technology, and Criterion C for its distinctive master plan, construction, and architecture, including a landscaped "commons," massive airship hangars, and its regional examples of Spanish Colonial Revival design.

CERCLA removal actions must comply to the extent practicable with the applicable or relevant and appropriate requirements of certain other environmental laws. Because of the historic property located at this CERCLA site, one of the location-specific applicable requirements identified in this case is the NHPA. Under CERCLA, the applicable requirements of the NHPA include those that are substantive, rather than those portions of the law that are procedural or administrative.

The ACHP first became involved in consultation on this undertaking in July 2006, in response to the Navy's notification to our office of the adverse effects of its originally proposed removal action alternative (demolition and off-site disposal of the hangar) on the historic property. The Navy subsequently changed its preferred removal action. Since 2006, ACHP staff has provided comments on two versions of the EE/CA (dated May 2006 and internal working draft dated September 2007) and participated in semi-regular conference calls with the Navy, California Office of Historic Preservation (SHPO), and other parties.

To conclude the consultation process, the Navy requested the final comments of the ACHP on their proposed CERCLA action. In response to our request, the Navy

response action will help ensure its long-term survival and will not preclude implementation of future restoration measures by NASA, the federal facility operator, or others interested in potential reuse of the hangar.

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

extended the time period in which we could provide our comments to October 6, 2008.

I appointed a panel of ACHP members to consider this case. The panel consisted of Susan Barnes, John G. Williams 111, and Stephen T. Ayers. On September 17, 2008, the ACHP members met with representatives of the Navy, the National Aeronautics and Space Administration (NASA), the U.S. Environmental Protection Agency (EPA), the California SHPO, and the California Regional Water Quality Control Board, San Francisco Bay Region, and visited Hangar 1. That evening the panel members conducted a public meeting and received comments from concerned public officials, organizations, and individuals. I would like to thank members of the Navy team, Ms. Laura Duchnak, Mr. John Hill, Mr. Darren Newton, Mr. Marvin Norman, Ms. Carolyn Hunter, and Dr. Jay Thomas for their valuable assistance in providing information to the panel members and making these meetings and site visit successful. The comments and recommendations that follow are based on consideration by ACHP of the facts in this case and the review and deliberations of this member panel.

Findings

Hangar 1 is an important historic resource due to its use and association with a significant episode in the development of naval aviation prior to World War II, and its architectural design as an example of early twentieth century military planning, engineering, and construction in the Streamline Moderne style. According to the NRHP Registration Form (1994; sec. 7, pg. 5) for the United States Naval Air Station Sunnyvale, California- Historic District, Hangar 1 "is without question the most significant building both architecturally and historically" of the other buildings at Moffett Field, "one of the major buildings of Northern California, and has been recognized as an Engineering Landmark by the American Society of Civil Engineers." The NRHP Registration Form (1994; sec. 8) also notes that Hangar 1 has been designated as a Naval Historical Monument. We recognize Hangar 1's significance not only as an individual property, but also as a contributing element to the historic district.

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

Hangar 1 is extremely significant to the community. As we learned from the many public comments we received, this building is an icon to residents. It is an identifiable landmark in the Silicon Valley and a symbol of American pride. Visible from many locations, it makes an enormous impression on the landscape. Many people have strong personal and emotional associations with this building. There is tremendous public interest in restoring this historic resource to a useable facility. We also acknowledge the continued congressional interest in the fate of Hangar 1, as evidenced by letters to you dated June 16, 2006 and September 17, 2008. We recognize the Navy's responsibilities to address the contamination of Hangar 1. Under CERCLA, the Navy is obligated to remediate Hangar 1 to protect human health and the environment. We fully support the Navy's work to do so; however, we also emphasize the suitability of Hangar 1 for a wide variety of potential reuses. We commend the Navy for reconsidering its original proposed removal action of demolition and off-site disposal of the hangar, and for its work to analyze multiple options to achieve its environmental remediation responsibilities.

We understand NASA has begun to gather information toward identifying an appropriate reuse of the building. In addition, NASA is seeking input from the local community on ideas for potential future uses of Hangar 1 and has expressed its commitment to seeking private partners to collaborate and assist in the restoration effort.

The overarching goal of this effort among the federal agencies is to remediate the environmental contamination and return a viable and relevant use to Hangar 1. Without a specific commitment to re-skin the hangar, should the Navy elect to move forward with its preferred Alternative #10, the remaining exposed frame will no longer be considered a building. Exposed to the elements, this frame will surely begin to deteriorate and eventually become unsuitable for reuse. With the passage of time, we fear that demolition will be the likely outcome.

Recommendations

Section 110(a)(2)(B) of the NHPA requires each federal agency to establish a preservation program to ensure that historic properties under its jurisdiction or

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

control "are managed and maintained in a way that considers the preservation of their historic, archaeological, architectural, and cultural values in compliance with section 106 of this Act and gives special consideration to the preservation of such values in the case of properties designated as having National significance." Further, Executive Order 13287, Section 1, notes "the policy of the Federal Government to provide leadership in preserving America's heritage by actively advancing the protection, enhancement, and contemporary use of the historic properties owned by the Federal Government, and by promoting intergovernmental cooperation and partnerships for the preservation and use of historic properties." In light of the national significance of the United States Naval Air Station Sunnyvale, California-Historic District and Hangar 1's contribution to the district, the Navy's long history of ownership and control as well as the interest it still maintains in the hangar, the Navy should actively pursue a course of action in regard to this undertaking that supports NASA's long term responsibility to preserve and reuse the hangar in accordance with the Section 110 of the NHPA and Executive Order 13287.

We are encouraged by the work the Navy has done thus far to establish productive working relationships with NASA and other federal and state agencies. We recommend the Navy develop a formal partnership with NASA to develop a single coordinated delivery schedule to re-skin the hangar and find a viable reuse for the building. We urge the Navy to apply additional finds to this effort and to work with NASA and its potential public-private partners whom also may provide funding to return Hangar 1 to a viable, reusable building. Under such an integrated approach, the Navy could coordinate the timing of its undertaking with NASA and ensure a seamless transition from removal action to active reuse with little to no time where the frame is left without siding or roof. We realize ongoing monitoring of the existing asphalt emulsion will be required to determine the continued effectiveness of that Time-Critical Removal Action.

We commend the Navy for undertaking Level 1 Historic American Engineer Record documentation. We also support the Navy's proposed development of oral

**RESPONSIVENESS SUMMARY FOR
ENGINEERING EVALUATION/COST ANALYSIS, REVISION 1
IR SITE 29, HANGAR 1
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

histories, virtual Hangar 1 interactive CD, and the inventory-catalogue of the Hangar 1 collections contained in the Moffett Field Museum. We strongly encourage the Navy to engage local communities both in the creation of these products as well as in their distribution. By establishing a working relationship with the local school districts, for instance, the Navy can ensure the incorporation of this valuable information and history in school curricula.

We urge the Navy, however, to focus its time and efforts to mitigate the adverse effects of its preferred removal action alternative on an enhanced collaboration with NASA to ensure the long-term survival and reuse of this historic property. Combining further information gathering and documentation efforts with reuse discussions would add efficiency to this process. These efforts would appropriately resolve the adverse effects to the historic district.

In accordance with Section 106, you must take into account these comments of the ACHP. In accordance with Section 110(1) of the NHPA and the Section 106 implementing regulations, this responsibility cannot be delegated. A similar letter (copy enclosed) will be sent to NASA Administrator Michael Griffin, forwarding these comments.