UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

AND THE

STATE OF CALIFORNIA

AND THE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

IN THE MATTER OF:

National Aeronautics and
Space Administration
NASA Ames Research Center
Moffett Field, CA

FEDERAL FACILITY AGREEMENT

CERCLA Section 120

Administrative Docket Number:

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FEDERAL FACILITY AGREEMENT
under CERCLA Section 120

Administrative Docket Number:

Based on the information available to the United States Environmental Protection Agency (EPA), the State of California (State), and the National Aeronautics and Space Administration (NASA) (collectively, the Parties) on the Effective Date of this FEDERAL FACILITY AGREEMENT (Agreement), and without trial or adjudication of any issues of fact or law, the Parties agree as follows:

I. JURISDICTION

Each Party is entering into this Agreement pursuant to the following authorities:

1.1 EPA Region IX enters into those portions of this Agreement that relate to the Remedial Investigation/Feasibility Study (RI/FS) pursuant to Section 120(e)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9620(e)(1), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. No. 99-499 (hereinafter jointly referred to as CERCLA), and Sections 6001, 3008(h) and 3004(u) and (v) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v) as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA) (hereinafter jointly referred to as RCRA), and Executive Order 12580.

1.2 EPA enters into those portions of this Agreement that relate to interim remedial actions and final remedial actions pursuant to CERCLA Section 120(e)(2), 42 U.S.C. Section 9620(e)(2), RCRA Sections 6001, 3008(h) and 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), and Executive Order 12580.

1.3 NASA enters into those portions of this Agreement that relate to the RI/FS pursuant to CERCLA Section 120(e)(1), 42 U.S.C. Section 9620(e)(1), RCRA Sections 6001, 3008(h) and 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), Executive Order 12580, the National Environmental Policy Act, 42 U.S.C. Section 4321, 10 U.S.C. Section 2701 *et seq.*

1.4 NASA enters into those portions of this Agreement that relate to interim remedial actions and final remedial actions pursuant to CERCLA Section 120(e)(2), 42 U.S.C. Section 9620(e)(2), RCRA Sections 6001, 3008(h), 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), and Executive Order 12580.

1.5 The State of California enters into this Agreement pursuant to CERCLA Sections 120(f) and 121(f), 42 U.S.C. Sections 6961, 9620(a)(4) and (f), and 9621(f), Section 3006 of RCRA, 42 U.S.C. Sections 6926, and Chapters 6.5 and 6.8 of Division 20 of the California Health and Safety Code, and California Water Code Division 7.

II. DEFINITIONS

Except as noted below or otherwise explicitly stated, the definitions provided in CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) shall control the meaning of terms used in this Agreement.

2.1 "Accelerated Operable Unit" or "AOU" shall mean a remedial action, which prevents, controls, or responds to a release or threatened release of hazardous substances, pollutants, and contaminants where prompt action is necessary, but a response under removal authorities is not appropriate or desirable. The purpose of an AOU is to allow the Parties to proceed with a remedial action for that Operable Unit prior to completion of the final Record of Decision (ROD) for the total remedial action. AOUs are particularly appropriate where the size and complexity of the total remedial action would seriously delay implementation of independent parts of the action. AOUs will only proceed after complying with applicable procedures in the NCP, and the Parties shall make every effort to expedite these procedures. It is not intended that AOUs diminish the requirements for or delay the conduct of a total remedial action.

2.2 "Agreement" shall refer to this document and shall include all Appendices to this document. All such Appendices are integral parts of this Agreement and shall be enforceable to the extent provided herein.

2.3 "NASA Ames Research Center," "NASA Ames," or "NASA ARC" shall mean the NASA facility located at Moffett Field, CA. NASA Ames Research Center includes a portion of the former Naval Air Station (NAS) Moffett Field transferred to NASA by the Navy in 1994 as well as property that previously neighbored the former NAS Moffett Field. NASA is the successor owner for this portion of the former NAS Moffett Field. The "Cantonment Area" within NASA Ames refers to the areas described in the documents entitled (1) *Permit to United States Air Force from National Aeronautics and Space Administration, Ames Research Center regarding the California Air National Guard 129th Rescue Wing Cantonment Area and Related Facilities* ("NASA-Air Force Permit," effective January 26, 2010 and numbered as NASA Space Act Agreement SAA2-402604), and (2) the *Memorandum of Understanding Between National Aeronautics and Space Administration, Ames Research Center, and California Air National Guard 129th Rescue Wing Cantonment Area and Related Facilities* ("NASA-CANG MOU," effective November 10, 2009 and numbered as NASA Space Act Agreement SAA2-402605). For purposes of this Agreement, NASA Ames Research Center shall not include Crows Landing Auxiliary Flight Facility, now a Component Facility of NASA Ames Research Center (see NASA Policy Directive 1000.3, The NASA Organization), located in Stanislaus County that was included in the transfer.

2.4 "Applicable State law" shall mean all State of California laws administered by California determined to be applicable under this Agreement. The term shall include all State laws determined to be Applicable or Relevant and Appropriate Requirements (ARARs).

2.5 "Applicable or Relevant and Appropriate Requirements" or "ARARs" shall mean "legally applicable" or "relevant and appropriate" requirements, standards, criteria, or limitations, as those terms are used in Section 121 of CERCLA, 42 U.S.C. Section 9621, and as defined in the NCP.

2.6 "Area of Investigation" or "AOI" shall mean an area NASA Ames originally identified for investigation and/or response action.

2.7 "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. Section 9601 *et seq.*, as amended by the Superfund

Amendments and Reauthorization Act of 1986 (SARA), Public Law No. 99-499, and any amendments thereto.

2.8 "Community Relations" shall mean the program to inform and involve the public in the facility restoration, CERCLA and RCRA processes, and to respond to community concerns.

2.9 "Days" shall mean calendar days, unless business days are specified. Any submittal, written statement of position, or written statement of dispute, which, under the terms of this Agreement, would be due on a Saturday, Sunday, or Federal or State holiday shall be due on the following business day.

2.10 "Deadlines" shall mean the Near Term Milestones specifically established for the current fiscal year under the Site Management Plan. Deadlines are subject to stipulated penalties in accordance with Section XXI – STIPULATED PENALTIES.

2.11 "Deliverable Documents" shall mean those required documents listed as Primary and Secondary Documents under this Agreement.

2.12 "Dispute Resolution Committee" or "DRC" shall mean a forum for resolution of disputes for which agreement has not been reached through informal dispute resolution.

2.13 "Documents" or "Records" shall mean any documents, writings, correspondence, and all other tangible things on which information has been stored that relates to this Agreement or to any activities to be undertaken relating to this Agreement.

2.14 "Environmental Protection Agency," "EPA", "U.S. EPA", or "Agency" shall mean the United States Environmental Protection Agency, its employees, agents, authorized representatives, successors and assigns.

2.15 "Facility" shall mean that Moffett Field property owned in part by the United States Department of the Army and in part by NASA, including that portion known as Ames Research Center, Moffett Field, CA, and including all areas identified in Figure 1to this Agreement. This definition is for the purpose of describing a geographical area and not a governmental entity.

2.16 "Fiscal year" shall mean the time period used by the United States Government for budget management and commences on October 1 and ends on September 30 of the following calendar year.

2.17 "Focused Feasibility Study" or "FFS" shall mean a comparison of alternatives that concentrates on a particular contaminated medium or a discrete portion of the Site that does not need added investigation in order to progress forward in the remedial process.

2.18 "Guidance" shall mean any requirements or policy directives issued by EPA or the State of California that are of general application to environmental matters and which are otherwise applicable to NASA's work under this Agreement.

2.19 "Institutional Control" or "IC" shall mean a subset of Land Use Controls (LUCs) that are non-engineered instruments, such as administrative or legal controls (*e.g.*, deed restrictions, building or excavation permits, well drilling prohibitions, or easements), imposed on property to prevent human exposure to contaminants or protect the integrity of a response action.

2.20 "Interim Remedial Action" shall mean all discrete Remedial Actions, including, but not limited to, Accelerated Operable Units (AOUs), implemented prior to a final Remedial Action that are taken to prevent or minimize the release of hazardous substances, pollutants, or contaminants.

2.21 "Land Use Controls" or "LUCs" shall mean any non-engineered instruments, restrictions, or administrative actions, including engineering controls and ICs, arising from the need to reduce risk to human health and the environment.

2.22 "MEW," "MEW Superfund Site," or "MEW Study Area" shall mean the Middlefield-Ellis-Whisman Superfund Study Area which is comprised of contamination at four listed National Priorities List (NPL) sites: Fairchild Semiconductor Corp. – Mountain View Superfund site; Raytheon Company Superfund site; and Intel Corp. – Mountain View Superfund site, and portions of the Naval Air Station (NAS) Moffett Field Superfund site. The MEW Study Area includes the areas where contamination from these four sites has come to be located, three of which are south of U.S. Highway 101 from the former NAS Moffett Field and one of which is part of the Moffett Field Superfund site.

2.23 "MEW Regional Plume" shall mean the regional groundwater contamination from the four NPL sites that travels northward from the area south of U.S. Highway 101 onto the former NAS Moffett Field.

2.24 The "MEW PRPs" shall mean the potentially responsible parties for the three private NPL sites listed in paragraph 2.22, the U.S. Navy, and NASA, all of which have contributed to the MEW Regional Groundwater Plume.

2.25 The "MEW Companies" shall mean the private party contributors among the MEW PRPs that are subject to EPA's 1991 Unilateral Administrative Order (UAO) and entered into a 1992 Consent Decree (CD), both as amended.

2.26 "Milestones" shall mean the dates established by the Parties in the Site Management Plan for the initiation or completion of Primary Actions and the submittal of Primary Documents and Project End Dates. Milestones shall include Near Term Milestones, Out Year Milestones, Primary Actions, and Project End Dates.

2.27 "Navy Moffett Federal Facilities Agreement," "Navy Moffett FFA," "1990 Moffett FFA," or "Navy 1990 FFA" shall mean the 1990 Federal Facility Agreement for Moffett Field, California, as amended, agreement entered into between EPA, the State, and the Navy under CERCLA Section 120(e)(2).

2.28 "NASA" shall mean the National Aeronautics and Space Administration, its employees, members, successors and authorized representatives, and assigns. The NASA Administrator performs all necessary functions to govern NASA operations and exercises the powers vested in NASA by law. NASA Headquarters, or NASA HQ, under the leadership of the NASA Administrator, provides overall guidance and direction to the agency, including NASA Ames and other field centers and installations. NASA Ames is the component of NASA that is performing the response actions at the Site.

2.29 "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300, and any amendment thereto.

2.30 "NAS Moffett Field" shall mean the former Naval Air Station Moffett Field, located on approximately 1,500 acres in California. NAS Moffett Field was established in 1931 and commissioned in 1933 as the Navy's base for the U.S.S. Macon. The Navy participated in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) to identify, investigate, and control the migration of hazardous contamination at military and other DOD facilities, and, in 1987, EPA listed NAS Moffett Field on the NPL. In 1991, NAS Moffett Field was subject to the Base Closure and Realignment (BRAC) process, and subsequently was transferred by the Navy, in major part, to NASA. The Navy transferred the remaining areas, which were primarily housing areas (Orion Park, Wescoat, and Shenandoah Square) to the United States Air Force, which subsequently transferred those areas to their current owner, the United States Army.

2.31 "Near Term Milestones" shall mean the Milestones within the current fiscal year (FY), the next fiscal year or "budget year" (FY+1), and the year for which the budget is being developed or "planning year" (FY+2).

2.32 "On-site" shall have the meaning as defined in the NCP.

2.33 "Operable Unit" or "OU" shall mean a discrete action that comprises an incremental step toward comprehensively remediating a site. This discrete portion of a remedial response manages migration, or eliminates or mitigates a release, threat of release, or pathway of exposure related to a site. Operable Units may address geographical portions of a site, specific site problems, or initial phases of an action, or may consist of any set of actions performed over time or any actions that are concurrent but located in different parts of the site. The cleanup of a site can be divided into a number of Operable Units, depending on the complexity of the problems associated with it. The term "Operable Unit" is not intended to refer to the term "operating unit" as used in RCRA. All Operable Units shall be addressed in accordance with the NCP, EPA Guidance, and the requirements of CERCLA.

2.34 "Out Year Milestones" shall mean the Milestones within those years occurring after the planning year until the completion of the cleanup or phase of the cleanup (FY+3 through Project End Date).

2.35 "Parties" shall mean NASA, EPA, and the San Francisco Bay Regional Water Quality Control Board (Regional Water Board).

2.36 "Primary Actions" as used in these definitions shall mean those specified major, discrete actions that the Parties identify as such in the Site Management Plan. The Parties should identify all major, discrete actions for which there are sufficient information to be confident that the date for taking such action is implementable.

2.37 "Project End Dates" shall mean the dates established by the Parties in the Site Management Plan for the completion of major portions of the cleanup or completion of the cleanup of the facility. The Parties recognize that, in many cases, a higher degree of flexibility is appropriate with Project End Dates due to uncertainties associated with establishing such dates.

2.38 "Project Manager" shall mean each person designated by the Parties to represent that Party's interests and manage all response actions undertaken at the Site.

2.39 "RCRA" shall mean the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., as amended by the Hazardous and Solid Waste Amendments of 1984, (HSWA), Public Law No. 98-616, and any amendments thereto.

2.40 "Record of Decision" or "ROD" shall be the public document that selects and explains which cleanup alternative will be implemented at the Site, and includes the basis for the selection of such remedy. The bases include, but are not limited to, information and technical analyses generated during the RI/FS and consideration of public comments and community concerns.

2.41 "Schedule" shall mean a timetable or plan that indicates the time and sequence of events.

2.42 "Site," as shown in Figure 1, shall mean NASA Ames Research Center and the portion of the NAS Moffett Field Superfund site, listed on the NPL in 1987, currently owned by NASA where a hazardous substance, hazardous waste, hazardous constituent, pollutant, or contaminant has been deposited, stored, disposed of, or placed, or has migrated or otherwise come to be located. The Site is a "facility" within the meaning of Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9). This definition is not intended to include hazardous substances or wastes intentionally transported from the facility by motor vehicle. As described in Section VI (FINDINGS OF FACT, Paragraphs 6.8 et seq.), portions of the Site are being addressed by the Navy under the Navy Moffett FFA, as amended, and by the MEW Companies under the 1992 CD and the 1991 UAO, both as amended.

2.43 "NASA Ames Research Center Site Management Plan" or "NASA ARC SMP" shall mean the management tool for planning, reviewing, and setting priorities for all response activities to be conducted by NASA Ames under the terms of this Agreement. The SMP shall contain timetables, plans, and schedules that indicate the times and sequences of events for the work to be conducted under this Agreement. Milestones developed under the terms of this Agreement shall be listed in the SMP. Deadlines listed in the SMP are subject to stipulated penalties in accordance with Section XXI – STIPULATED PENALTIES.

2.44 "State" or "State of California" shall mean the Regional Water Board, as set forth in this agreement. The Regional Water Board is the lead State agency for this Federal Facility.

2.45 "Target Dates" shall mean dates established for the completion and transmission of Secondary Documents. Target Dates are not subject to dispute resolution and they are not Milestones.

2.46 "Transmit" shall mean the following: any document or notice to be transmitted by a certain date will be considered as transmitted on time if: (1) it is provided to the carrier on a next day mail basis no later than the day before it is due to be delivered according to the requirements of this Agreement; (2) it is hand-delivered by the due date; (3) it is sent by certified mail return receipt requested no later than two days before it is due to be delivered according to the requirements of this Agreement. Any other means of transmission must arrive on or before the due date to be considered as timely delivered.

2.47 "Regional Water Board" shall mean the San Francisco Bay Regional Water Quality Control Board and its authorized employees and authorized representatives.

2.48 "Work" shall mean all activities NASA is required to perform under this Agreement, except those required by Section XXXI – RECORD PRESERVATION.

III. PARTIES BOUND

3.1 This Agreement shall apply to and be binding upon EPA, the State, and NASA.

3.2 NASA agrees to include the notices required by Section 120(h) of CERCLA in any contract for the sale or transfer of real property affected by this Agreement. Transfer or conveyance of any interest in real property affected by this Subsection 3.1 shall not relieve NASA of its applicable obligations under this Agreement.

3.3 NASA shall notify EPA and the State of the identity and assigned tasks of each of its contractors performing Work under this Agreement upon their selection and contract award. NASA shall provide copies of this Agreement to all contractors performing any Work called for by this Agreement. Each Party shall be responsible for ensuring that its contractors comply with the terms and conditions of this Agreement.

3.4 This Section shall not be construed as an agreement to indemnify any person.

IV. PURPOSE

4.1 The general purposes of this Agreement are to:

4.1.1 Ensure that the environmental impacts associated with NASA's past and present activities at the Site are thoroughly investigated and appropriate remedial action taken as necessary to protect the public health, welfare and the environment;

4.1.2 Establish a procedural framework and Schedule for developing, implementing and monitoring appropriate response actions at the portions of the Moffett Field Site where NASA was a source of contamination, as described in Section VI, paragraph 6.7 and Section IX, paragraph 9.2, in accordance with CERCLA, as amended by SARA, the NCP, Superfund Guidance and policy, RCRA, RCRA Guidance and policy, and applicable State law;

4.1.3 Ensure that response actions taken by the Navy and by the MEW Companies on the Site currently owned by NASA that require implementation of LUCs in order to be fully protective of human health and the environment are completed through landowner implementation of those associated LUCs and

4.1.4 Facilitate cooperation, exchange of information and participation of the Parties in such actions.

4.2 Specifically, the purposes of this Agreement are to:

4.2.1 Identify interim remedial action (IRA) alternatives, which are appropriate at portions of the Site where NASA was a source of contamination, prior to the implementation of final Remedial Actions(s) (RAs) in those areas. The IRA alternatives shall be identified and proposed to the Parties as early as possible prior to formal proposal of IRAs to EPA and the State pursuant to CERCLA and applicable State law. This process is designed to promote cooperation among the Parties in identifying IRA alternatives prior to selection of final IRAs;

4.2.2 Identify work to be conducted by NASA necessary to implement remedial actions already selected in a ROD issued by EPA or by the Navy in areas where NASA is a source of contamination;

4.2.3 Establish requirements for the performance of a Remedial Investigation (RI) to determine fully the nature and extent of the threat to the public health or welfare or the environment caused by the release and threatened release of hazardous substances, pollutants or contaminants at the portions of the Site where NASA is a source of contamination, and to establish requirements for the performance of an FS to identify, evaluate and select alternatives for the appropriate remedial action(s) to prevent, mitigate, or abate the release or threatened release of hazardous substances, pollutants or contaminants at areas of the Site where NASA is a source of contamination in accordance with CERCLA and applicable State law;

4.2.4 Identify the nature, objective and Schedule of response actions to be taken at areas of the Site where NASA is a source of contamination. Response actions at areas of the Site where NASA is a source of contamination shall attain that degree of cleanup of hazardous substances, pollutants or contaminants mandated by CERCLA and applicable State law;

4.2.5 Implement the selected interim remedial and final remedial action(s) in accordance with CERCLA and applicable State law and meet the requirements of CERCLA Section 120(e)(2) for an interagency agreement among the Parties.

4.2.6 Implement LUCs at the Site where NASA is the landowner and LUCs are necessary in order to be protective of human health and the environment.

4.2.7 Ensure compliance, through this Agreement, with RCRA and other Federal and State hazardous waste laws and regulations for matters covered herein.

4.2.8 Coordinate response actions at the Site with the mission and support activities at Moffett Field.

4.2.9 Expedite the cleanup process to the extent consistent with protection of human health and the environment.

4.2.10 Provide for State involvement in the initiation, development, selection, and enforcement of remedial actions to be undertaken at the Site, including the review of all applicable data as it becomes available, and the development of studies, reports, and action plans; and to identify and integrate State ARARs into the remedial action process.

4.2.11 Provide for operation and maintenance of any remedial action selected and implemented pursuant to this Agreement.

V. SCOPE OF AGREEMENT

5.1 This Agreement is entered into by the Parties to enable NASA to meet the provisions of CERCLA, 42 U.S.C. Section 9601 *et seq.*, and RCRA Sections 3004(u) and (v) and 3008(h), as amended, 42 U.S.C. Sections 6924(u) and (v) and 6928(h), and Division 20 of California Health and Safety Code and Division 7 of the California Water Code.

5.2 This Agreement is intended to cover the investigation, development, selection, and implementation of response actions for releases or threatened releases of hazardous substances, contaminants, hazardous wastes, hazardous constituents, or pollutants at or from areas of the Site where NASA is a source of contamination and to cover the implementation of LUCs for those areas being remediated by other entities, as shown in Figure 1. This Agreement covers all phases of remediation for these releases, bringing together into one agreement the requirements for remediation as well as the system the Parties will use to determine and accomplish remediation, ensuring the necessary and proper level of participation by each Party. Although all such releases at the Site are not currently known, the Agreement establishes the system for dealing with those undiscovered releases, as set forth in Section IX, paragraph 9.2.2 and Section XVIII. To accomplish remediation of those undiscovered releases, the Parties will establish Schedules and Deadlines as necessary and as information becomes available and, if required, amend this Agreement as needed.

5.3 This Agreement is intended to address and satisfy any of NASA's RCRA corrective action obligations at the Site, which relate to the release(s) of hazardous substances, hazardous wastes, hazardous constituents, pollutants, or contaminants at or from all areas addressed under future corrective action permits. This Agreement is not intended to limit any requirements under RCRA or any other law or regulation to obtain permits, and is not intended to affect the

treatment, storage, or disposal by NASA of hazardous wastes. This Agreement is not intended to encompass response to spills of hazardous substances from ongoing operations unless those spills occur in conjunction with CERCLA removal actions or remedial actions pursuant to this Agreement.

5.4 The scope of this Agreement for the purpose of developing, implementing and monitoring appropriate response actions at the Site extends to all areas within the Site where NASA is a source of contamination. The scope of this Agreement for the purpose of implementing LUCs extends to all areas within the Site where NASA is the land owner. The Site for these purposes is as defined in Section 2.44. A release at the Site where NASA is a source of contamination cannot be deleted from the NPL unless it is determined, in accordance with CERCLA, the NCP, and this Agreement, that NASA has implemented all appropriate response actions for such release, and that the release no longer poses a threat to human health or the environment. All response actions at the Site where NASA is a source of contamination shall occur in discrete locations termed AOIs or OUs identified at the Site pursuant to this Agreement.

5.5 This Agreement does not impact the obligations of the Navy to address contamination at the Site pursuant to the 1990 Moffett FFA with the EPA and the State or obligations of the MEW Companies to address contamination at the Site pursuant to the 1992 CD and 1991 UAO, both as amended. This Agreement also does not impact the obligations of the Navy, Air Force and/or the California Air National Guard to address contamination in the Cantonment Area pursuant to the NASA-Air Force Permit and the NASA-CANG MOU.

5.6 Any response action in progress on the Effective Date of this Agreement shall be subject to the obligations and procedures of this Agreement.

5.7 The Parties agree to expedite the initiation of response actions at the Site, including Accelerated Operable Units (AOUs) and interim response actions, and to carry out all activities under this Agreement so as to protect the public health, welfare, and the environment. Upon request, the Parties agree to provide applicable Guidance or reasonable assistance in obtaining such Guidance relevant to the implementation of this Agreement.

VI. FINDINGS OF FACT

6.1 For purposes of this Agreement, the following constitutes a summary of the findings upon which this Agreement is based. Nothing contained in this Agreement shall constitute an admission of any liability by NASA for any matters contained herein nor shall anything in this Agreement constitute an admission by NASA with respect to any finding of fact or any legal determination noted herein.

6.2.1 The Site for purposes of this Agreement is the NASA Ames Research Center and the portion of the NAS Moffett Field Superfund site currently owned by NASA. The NAS Moffett Field Superfund site was listed on the NPL in July 1987 (52 Fed. Reg. 27620), and the Navy has been addressing contamination pursuant to the 1990 Moffett FFA, as amended in 1994. The 1990 FFA requires the Navy to conduct remedial investigations and feasibility studies, conduct removal actions, and select and implement remedial actions to protect human health and the

environment at NAS Moffett Field. **Similarly, the MEW Companies have been addressing contamination from the MEW Superfund Site that reaches onto the Site pursuant to the 1991** UAO and 1992 CD, both as amended

In 1994, a majority portion of NAS Moffett Field, with the exception of the Wescoat, Orion Park, and Shenandoah housing areas, was transferred to NASA, which already owned the neighboring NASA Ames Research Center. As part of that transfer, the Navy and NASA entered into an MOU that established roles for conduct of environmental restoration and ongoing environmental compliance at the Site.

As the current land owner of NAS Moffett Field, NASA has a combined role at the Site. NASA must address its own sources of contamination while also implementing LUCs that ensure the protectiveness of other parties' response actions at the Site, including the CERCLA response actions at NAS Moffett Field being conducted by Navy and by the MEW Companies. Details of the investigations and response actions currently being conducted by NASA are listed in Paragraphs 6.7 et seq. below. Paragraph 6.8 provides descriptions of remedial work conducted on NASA property which requires implementation of LUCs by NASA.

6.2.2 NASA Ames Research Center was established in 1939 as the Ames Aeronautical Laboratory of the National Advisory Committee for Aeronautics. The Ames Aeronautical Laboratory was located on land adjacent to NAS Moffett Field and consisted of wind tunnels, hangars, aircraft operation and other research facilities. In 1958, the National Aeronautics and Space Administration was established under the Space Act and Ames Aeronautical Laboratory became Ames Research Center.

6.3 AOIs: In the early 1990s, NASA Ames implemented the Center-Wide Sampling and Analysis Program (CWSAP) which was intended to implement "a systematic, formal program to conduct an overall site evaluation of potential soil and groundwater issues at NASA Ames" (*Program Overview, Center-wide Sampling and Analysis Program, NASA Ames Research Center*, Erler & Kalinowski, March 1994). The CWSAP identified ten (10) Areas of Investigation (AOIs) at NASA Ames, numbered from 1 to 10. Seven (7) additional AOIs have been designated since that time when new information has been identified indicating the need for further investigation and possible remediation. The 1994 CWSAP and subsequent evaluations identified areas of potential soil and groundwater contamination from any source. The designated AOIs, as shown on Figure 1, encompassed broad areas containing potential NASA and/or non-NASA sources of contamination requiring further investigation.

6.4 OUs: Certain cleanup areas at NAS Moffett Field have been designated as "Sites" or "Operable Units," or "OUs," under the Navy Moffett FFA which require the Navy to implement investigations and response actions at Moffett, as shown on Figure 1. Some Navy-designated Sites include NASA AOIs. Certain of these Sites require ongoing ICs to ensure protectiveness.

6.5 The MEW Regional Plume constitutes a Superfund Cleanup at the Site that requires ongoing investigation, remediation, and implementation of ICs to ensure protectiveness. The MEW Regional Plume includes both NASA AOIs and a Navy OU, as shown on Figure 1.

6.6 NASA Ames represents that it has entered into certain agreements with regard to the Cantonment Area of NAS Moffett Field. Obligations set forth in those agreements have no impact on the scope of this Agreement, and this Agreement also does not impact the obligations of the Navy, the U.S. Air Force, and/or the California Air National Guard to address contamination in the Cantonment Area pursuant to the NASA-Air Force Permit and the NASA-CANG MOU.

6.7 **Source Areas:** Work for which NASA has Response Action Responsibility as a Source of Contamination:

6.7.1 **Former Soil Fill Area (FSFA):** The FSFA includes the twelve-acre Area of Investigation 14 (AOI 14), Building N217 Fill Area, and Building N217A Fill Area. NASA Ames deposited fill at the FSFA which was contaminated with polychlorinated biphenyls (PCBs), dichlorodiphenyltrichloroethane (DDT), lead, chromium, cadmium, and zinc. The FSFA consists of three peninsulas that jut into a storm water retention pond that serves as actual and potential habitat for several ecological receptors. In a March 15, 2013 RCRA 7003 Order, EPA required NASA to conduct immediate and long-term response actions at the FSFA in order to stabilize and address soil contamination to mitigate the potential imminent and substantial endangerment to the environment and the threat to the neighboring Navy Site 25 cleanup. Upon execution of this Agreement, the RCRA 7003 Order will be terminated and the remaining response actions at the FSFA will be conducted as CERCLA actions under the FFA.

6.7.2 **AOIs 3, 7, and 9:** AOIs 3, 7, and 9 were broad areas identified for investigation of potential NASA Ames and Navy source areas to groundwater contamination that contribute to the MEW Regional Plume. This groundwater contamination is primarily volatile organic compounds (VOCs). In accordance with EPA's 1989 MEW Study Area ROD, the MEW Companies, the Navy, and NASA have been operating groundwater extraction and treatment systems to address and control various portions of the MEW Regional Plume. These activities are conducted by the Navy under the 1990 Moffett FFA with the Navy and under a Unilateral Order and Consent Decree with the MEW Companies. To date, NASA Ames has been implementing the remedy in its designated area of responsibility pursuant to a separate agreement with the MEW Companies.

AOI 3 includes a number of formerly independent AOIs, specifically (1) AOI 1 - Former N-211 Jet Fuel Depot; (2) AOI 2 - N239, N239A, N210, N243 and N243A Area; (3) AOI 3 – USTs in N248A, N248B, and N259 Area; (4) AOI 3 East - N248, N248C and N248D Areas; and (5) AOI 12 – the N211 Hangar Area. Any remediation of these areas would be addressed in accordance with EPA's 1989 MEW Study Area ROD. NASA Ames has entered into a separate agreement with the MEW Companies concerning allocation of work for AOI 3 under which NASA Ames is conducting the remediation of petroleum compounds and the MEW Companies are conducting remediation of the VOCs. No wells are specifically associated with these areas at this time.

AOI 7 includes Navy Site 8 North and NASA Ames' Vertical Takeoff and Landing (VTOL) Pad. Historic documents indicate that solvents and oils were released from drums stored by the Navy at Site 8. Previous actions included the removal of both contaminated soil (excavation and disposal) and groundwater (excavation pit dewatering, treatment and discharge) by NASA Ames. In 2000,

NASA Ames installed two extraction wells (NASA-3A and NASA-4A) in the shallow A Aquifer at AOI 7 for treatment of Navy Site 8 VOC releases within the MEW Regional Plume.

AOI 9 was originally identified by NASA Ames for further investigation of potential sources contributing to the MEW Regional Plume. No NASA Ames or other sources have been identified in the area of AOI 9, however NASA Ames has agreed to take responsibility for Regional Plume activities in this area under its agreements with the MEW Companies. NASA Ames remedy operation and data reporting feed into Navy and MEW Companies monitoring reports on the MEW Regional Plume. Groundwater contamination was found to be elevated in this area, and, in 2000, NASA Ames installed two extraction wells (NASA-1A and NASA-4A) in the shallow A Aquifer downgradient of Building N240.

NASA-2A (AOI 7) and NASA-4A (AOI 9) were shutdown in 2009 due to low performance and have not been returned to service or replaced.

EPA's 2009 5 Year Review for the MEW Site identified certain concerns regarding hydraulic control of the Regional Plume. To address these concerns, the responsible parties submitted a Draft Work Plan for Hydraulic Containment of the Groundwater Plume, dated July 10, 2012. In response to EPA comments requesting a full evaluation of plume stability or installation of additional wells at the northernmost toe of the plume, NASA Ames agreed to install a monitoring well at the northernmost toe of the plume in the A2/B1 aquifer. Well installation will be conducted in accordance with the Final Northernmost A2-B1 Aquifer Assessment Work Plan, approved by EPA in June 2014.

NASA Ames' 2013 Annual Progress Report, Regional Groundwater Remediation Program, presents recommendations addressing optimization of the existing system operated by NASA and for evaluation of monitored natural attenuation in the northernmost area of the Regional Plume. Under the Final Northernmost A2-B1 Aquifer Assessment Work Plan, NASA will also complete additional characterization of the A1 aquifer in the areas of wells NASA-1A through -4A and will submit a separate work plan to evaluate and demonstrate monitored natural attenuation.

6.7.3 **Vapor Intrusion:** EPA amended the 1989 ROD to select a vapor intrusion remedy for the MEW Superfund Site in its August 16, 2010 ROD Amendment for the Vapor Intrusion Pathway (2010 MEW ROD Amendment). The 2010 MEW ROD Amendment addresses the potential long-term exposure risks from trichloroethene (TCE) and VOCs through the vapor intrusion pathway. Vapor intrusion is an exposure pathway from the shallow subsurface contamination that is currently being addressed by actions under the MEW Superfund Site's 1989 ROD.

The primary source of vapor intrusion into buildings within the MEW Superfund Site is TCE contamination in the shallow groundwater; accordingly, the Vapor Intrusion Study Area is generally defined as the area where TCE concentrations in shallow groundwater are greater than 5 micrograms per liter (μg/L), or parts per billion (ppb). In September 2011, EPA worked with the MEW Companies, NASA Ames, and the Navy to develop the Statement of Work for the Vapor Intrusion Remedy Remedial Design and Remedial Action (September 2011 SOW). All work required pursuant to this September 2011 SOW is referred to herein as Vapor Intrusion Work.

Pursuant to an agreement among NASA Ames, Navy, and the MEW Companies, each entity is responsible for implementing the Vapor Intrusion Remedy in a designated area, as depicted on the map attached as Figure 2. Pursuant to an agreement between the MEW Companies and NASA NASA Ames is responsible for implementing the Vapor Intrusion Work within the Vapor Intrusion Study Area – Moffett Field Area in the area designated as the "NASA Vapor Intrusion Area." The MEW Companies and the Navy are responsible for conducting the Vapor Intrusion Work in other designated areas under their respective enforcement instruments.

6.7.4 **AOI 6**: The Lindbergh Avenue Storm Drainage Channel/Ditch ("Ditch") was an approximate 2000 foot-long open, concrete-lined channel located along Lindbergh Avenue in the northeastern portion of NASA Ames that collected runoff from McCord Road, King Road, Severyns Road, the aircraft ramp and western portion of NAS Moffett Field, including the area surrounding Hangar 1. The channel was closed in 1993 with the replacement of a new storm drain system that drains stormwater from NASA Ames and the western areas of NAS Moffett Field to a Stormwater Settling Basin located within the Eastern Diked Marsh in the northwestern portion of NASA Ames. Contaminants of concern associated with the former ditch were PCBs (Aroclors 1254, 1260, 1262 and 1268), lead and petroleum constituents. NASA Ames conducted investigation and remediation at AOI 6 in 1994-1996, 2000 and 2001. In 1994, the concrete liner was removed and the entire length of the ditch south of the diversion box was over-excavated to a depth of approximately 3.5 feet. In 2000, additional soil samples were collected along the entire length of the former ditch, and in 2001, additional soil north of the diversion box exceeding the then-existing petroleum, lead and PCB cleanup levels for NASA Ames and Navy IR Site 25 was removed. NASA Ames applied PCB action levels of 0.47 mg/kg and 2.0 mg/kg to the areas north and south of the diversion box respectively. The 0.47 mg/kg goal was based on risk the Navy calculated for the juvenile mallard at Navy IR Site 25 (*Technical Memorandum on Remediation Goals for Polychlorinated Biphenyls at Site 25, Sultech, April 13, 2006*) and the 2.0 mg/kg goal was based on DTSC's site specific residential soil goal. The Residential Cleanup goal of 2.0 mg/kg was applied to AOI 6 south of OARF Road. The final remediation goal utilized for Navy IR Site 25 is 0.2 mg/kg. Upon completion of the 2001 excavation, the entire ditch was backfilled with imported soil to match the surrounding topographic conditions. NASA Ames has indicated in a draft report that it did not detect lead in the groundwater above drinking water site action levels in seven to ten sampling events in the monitoring wells for the Ditch. NASA Ames samples the sediment in the Stormwater settling basin and its outfall in the Navy's Eastern Diked Marsh annually for VOCs, SVOCs, priority pollutant metals, lead, petroleum hydrocarbons, and PCBs, in accordance with NASA Ames' Stormwater Pollution Prevention Plan. A completion report describing NASA's activities at AOI 6 needs to be submitted to document the cleanup actions taken at AOI 6 to date and determining whether future action is necessary.

6.7.5 **Stormwater Settling Basin**: The Stormwater Settling Basin, or SWSB, is a concrete basin approximately 100 feet long and 75 feet wide that receives all of the stormwater drainage from NASA Ames. The SWSB is located within the boundaries of Navy Site 25 Eastern Diked Marsh and the outfall from the SWSB enters the Eastern Diked Marsh. The primary contaminants in the sediment from the SWSB are PCBs, DDT, lead, and zinc. NASA Ames conducts annual sampling and maintenance of the settling basin and settling basin outfall area and provides the data to the Navy.. These annual reports should be provided to EPA and the

State. These areas need to be assessed to determine whether potential NASA Ames sources are impacting Navy Site 25.

6.7.6 **Hangar 1:** Hangar 1, Navy Moffett Site 29, was constructed by the Navy in 1932 to house the giant airship U.S.S. Macon. The hangar's floor space covers 8 acres, and it stands 200 feet high. The building materials and paint used to construct Hangar 1 contain PCBs, asbestos, lead and zinc. Contaminants in these materials moved into the environment around the hangar and, ultimately, reached AOI 6 and Navy Site 25 through the storm drain system. In 2003, the Navy completed a time-critical removal action that coated the exterior of Hangar 1 to seal the materials on the building surface. In July 2008, the Navy issued an Engineering Evaluation/Cost Analysis (EE/CA) recommending removal of the Hangar 1 siding and coating the structural steel frame, and in January 2009, the Navy signed an Action Memorandum documenting selection of this recommended alternative. The Navy has removed the Hangar siding, coated the steel frame, and has finalized the After Action Completion Report and Long-Term Management Plan addressing long-term maintenance and LUCs. A Final ROD to finalize the Hangar response actions is currently being developed by the Navy. Although this is a Navy OU, and NASA is not a source of contamination at Hangar 1, NASA Ames has agreed to take over operation and maintenance of the following specific elements of Hangar 1: (1) walkway to the beacon, (2) clam shell door hinge pins, (3) thirty-six trucks supporting the doors, (4) the four door gear drive motors, and (5) the hangar's electrical vaults (with the exception of electrical vault five). NASA will document and perform remedy operation and maintenance of these elements, as well as any operation and maintenance elements that NASA agrees to implement, in a NASA-specific long-term management plan for Hangar 1. The Navy remains responsible for the operation and maintenance for all other portions of the Hangar 1 remedy, including maintenance of the coating on the structural steel frame. As land owner, NASA is responsible for LUCs associated with the Navy's ROD for Hangar 1 (see paragraph 6.8.3 below). NASA Ames is currently in lease negotiations for portions of Moffett Field that includes the lease of Hangar 1.

6.8 **Land Use Controls:** Work for which NASA has Obligations to Implement LUCs as the Land Owner

6.8.1 **Sites 1 and 2:** Sites 1 and 2 are former landfills located in the northern portion of NAS Moffett Field and make up Operable Unit 1 (OU1). The Site 2 Landfill is now referred to as the Site 2 Former Landfill, because the waste material was removed and transferred to Site 1 as part of remedy implementation and Site 2 was closed with No Further Action status in 2003. In 1997, the Navy and regulatory agencies signed the OU1 Record of Decision (ROD). The Navy installed a multi-layer landfill cap at Site 1 in November 1998. Long-term maintenance of the cap and landfill gas and groundwater monitoring at Site 1 began in 1999 to ensure that the landfill was not emitting unacceptable levels of gas and that contaminants were not leaching into the groundwater or the San Francisco Bay. The OU1 ROD also listed the ICs that needed to be implemented for the Site. Two Five-Year Reviews for OU1 have been completed (2002 and 2007), each concluding that the remedy continues to be protective of human health and the environment in the short term, but noting that for long-term protectiveness, ICs needed to be implemented. As land owner, NASA is responsible for implementation of any selected ICs.

6.8.2 **Site 22:** The Site 22 landfill covers 11 acres. The Navy operated the landfill from approximately 1950 to 1967, primarily for domestic waste disposal. The landfill waste is buried a minimum of 3 feet below the ground surface. By 1973, the Site 22 landfill had been converted into holes 3, 6 and 7 of the Moffett Field Golf Course. Between 1994 and 1999, the Navy conducted an RI of the soil and groundwater and characterized the type and extent of contaminants throughout Site 22. Site 22 soil and groundwater contain VOCs, semi-volatile organic compounds, and pesticides. Groundwater monitoring is being conducted to ensure that contaminants are not migrating away from Site 22. In June 2002, the Navy issued a ROD signed by EPA and the Regional Water Board selecting use of a biotic barrier as the Site 22 remedy in order to prevent animal access to the landfill and listing the Site 22 ICs. The biotic barrier was completed in August 2003. Regular maintenance and long-term monitoring of groundwater and landfill gas is ongoing at Site 22 by the Navy, as required under the September 2003 Post-Construction Operations, Maintenance, and Monitoring Plan. The Navy completed a Five-Year Review for the Site 22 Landfill in 2008 which concluded that the remedy continues to be protective of human health and the environment in the short term, but noting that for long-term protectiveness, ICs needed to be implemented. As land owner, NASA is responsible for implementation of any selected ICs.

6.8.3 **Hangar 1:** The Navy addressed long-term maintenance of the Hangar 1 Removal Action in the Hangar 1 Final Long-Term Management Plan on June 11, 2013, and referenced ICs to be selected in the Final ROD for the Hangar. The Navy is developing a Final ROD for the Hangar which includes LUCs for the Hangar 1 response actions. As land owner, NASA is responsible for implementation of any ICs selected in the Final ROD.

6.8.4 **Vapor Intrusion Remedy**: EPA's 2010 ROD Amendment for Vapor Intrusion includes the use of ICs to ensure the ongoing implementation of the Vapor Intrusion remedy. These ICs include preventing interference with the current implementation of the Vapor Intrusion remedy, ensuring ongoing implementation of the remedy in future development, and providing information to building occupants about the remedy being implemented. With regard to all areas of the Site currently owned by NASA that are part of the MEW Vapor Intrusion Study Area, the Vapor Intrusion Work for NASA includes implementation of those ICs.

6.8.5 **Site 26:** Site 26 consists of two distinct chlorinated VOC groundwater plumes located east of the NAS Moffett Field runways that impact the upper portion of the A aquifer. In 1996, the Navy and regulatory agencies signed the OU 5 ROD for the Site 26 remedy. In 1997, the Navy began construction of the East-side Aquifer Treatment System (EATS) which began operating in January 1999. The remedy for the southern plume requires extraction and treatment until contaminant levels meet drinking-water maximum contaminant levels (MCLs), groundwater monitoring, and implementation of ICs to prevent human exposure to, or ingestion of, contaminated groundwater. The remedy for the northern plume only requires groundwater monitoring. In April 2003, the Navy proposed to replace the existing remedy with biostimulation/bioaugmentation, monitored natural attenuation, and new ICs, and a draft ROD amendment has been submitted for review. Two Five-Year Reviews for Site 26 have been completed (2005 and 2010), each concluding that the existing remedy continues to be protective of human health and the environment in the short term, but noting that ICs need to be implemented in order to reach long-term protectiveness.

VII. EPA DETERMINATIONS

7.1 The following constitutes a summary of the determinations relied upon by EPA to establish its jurisdiction and authority to enter into this Agreement. None of these determinations shall be considered admissions by any person, related or unrelated to this Agreement, for purposes other than determining the basis of this Agreement or establishing the jurisdiction and authority of the Parties to enter into this Agreement.

7.2 The National Aeronautics and Space Administration is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. Section 9601(21).

7.3 NAS Moffett Field is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9).

7.4 The United States is the owner and operator of NAS Moffett Field as defined in Sections 101(20) and 107(a)(1) of CERCLA, 42 U.S.C. Sections 9601(20) and 9607(a)(1). NASA is charged with fulfilling the obligations of the owner/operator under CERCLA at certain areas of NAS Moffett Field and is the authorized delegate of the President under Executive Order 12580 for those areas where NASA is a source of contamination. NASA is the owner under CERCLA at NAS Moffett Field for the purpose of implementing ICs at the Site. NASA is also the "lead agency," as defined in 40 C.F.R. § 300.5, for planning and implementing response actions under CERCLA at the Site in areas where NASA is a source of contamination.

7.5 There has been a release or a substantial threat of a release of hazardous substances, pollutants, contaminants, hazardous wastes or constituents at or from the Facility.

7.6 The actions provided for in this Agreement are not inconsistent with the NCP.

7.7 The actions provided for in this Agreement are necessary to protect the public health, welfare, and the environment.

7.8 This Agreement provides for the expeditious completion of all necessary response actions.

VIII. STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION

8.1 The Parties intend to integrate NASA's CERCLA response obligations and RCRA corrective action obligations which relate to the release(s) of hazardous substances, hazardous wastes, pollutants or contaminants covered by this Agreement into this comprehensive Agreement. Therefore, the Parties intend that activities covered by this Agreement will be deemed to achieve compliance with CERCLA, 42 U.S.C. Section 9601 *et seq.*; to satisfy the corrective action requirements of RCRA Sections 3004(u) and (v), 42 U.S.C. Sections 6924(u) and (v), for a RCRA permit, and RCRA Section 3008(h), 42 U.S.C. Section 6928(h), for interim status facilities; and to meet or exceed all applicable or relevant and appropriate Federal and

State laws and regulations, to the extent required by CERCLA Section 121, 42 U.S.C. Section 9621 and applicable State law.

8.2 Based upon the foregoing, the Parties intend that any remedial action selected, implemented, and completed under this Agreement will be deemed by the Parties to be protective of human health and the environment such that remediation of releases covered by this Agreement shall obviate the need for further corrective action under RCRA (*i.e.*, no further corrective action shall be required). The Parties agree that, with respect to releases of hazardous waste covered by this Agreement, RCRA shall be considered an applicable or relevant and appropriate requirement pursuant to CERCLA Section 121, 42 U.S.C. Section 9621.

8.3 The Parties recognize that the requirement to obtain permits for response actions undertaken pursuant to this Agreement shall be as provided for in CERCLA and the NCP. The Parties further recognize that ongoing hazardous waste management activities at NASA Ames Research Center may require the issuance of permits under Federal and State laws. This Agreement does not affect the requirements, if any, to obtain such permits. However, if a permit is issued to NASA Ames for ongoing hazardous waste management activities at the Site, EPA and/or the State shall reference and incorporate any appropriate provisions, including appropriate schedules (and the provision for extension of such schedules), of this Agreement into such permit. With respect to those portions of this Agreement incorporated by reference into permits, the Parties intend that judicial review of the incorporated portions shall, to the extent authorized by law, only be reviewed under the provisions of CERCLA.

8.4 Nothing in this Agreement shall alter NASA's authority with respect to removal actions conducted pursuant to CERCLA Section 104, 42 U.S.C. Section 9604.

IX. WORK TO BE PERFORMED

9.0 The Parties recognize that background information exists and has been reviewed prior to developing the Work Plans required by this Agreement. NASA need not halt currently ongoing work but may be obligated to modify or supplement work previously done to meet the requirements of this Agreement. It is the intent of the Parties to this Agreement that work done and data generated prior to the Effective Date of this Agreement be retained and utilized as elements of the RI/FS to the maximum extent feasible.

9.1. Land Owner Responsibilities

9.1.1 The Parties recognize that NASA, as land owner of a majority portion of the former NAS Moffett Field, has responsibilities in the development, selection, and implementation of response actions for both the NAS Moffett Field Site and the MEW Study Area Site that may impact the portions of the Site owned by NASA. This specifically includes providing access to, monitoring, and managing land in a manner that is consistent with selected LUCs. Accordingly, the Work to be performed by NASA includes participating and cooperating with the Navy and the MEW Companies in the development, selection, and implementation of the response actions required under the Navy's Moffett FFA, as amended, and with the MEW Companies under their 1991 UAO

and 1992 CD, as amended, as these response actions may impact NASA Ames property within the respective cleanup areas. Such participation shall include, at a minimum:

a. Timely review and comment on primary documents produced by the Navy and MEW Companies within the timeframes provided. If NASA does not provide comments within the time frames provided in the Navy Moffett FFA, the 1991 UAO, and 1992 CD, NASA will be deemed to have no comments;

b. Timely provision of data collected by NASA to the Navy and the MEW Companies for use to complete monitoring reports for response actions for which NASA data is relevant, such as potentiometric surface maps and plume maps.

c. Early identification to the Navy and MEW Companies of NASA's expectations regarding development and implementation of any LUC component of response actions pertaining to lands managed by NASA. Where NASA provides documentation regarding development and implementation of LUCs for a Navy remedial action, the Navy will be expected to comment within the timeframes provided, otherwise it will be deemed to have no comments;

d. Monitoring, implementing, maintaining, reporting, enforcing, or otherwise complying with any LUC component of response action pertaining to lands owned or managed by NASA; and

e. Identification within the NASA ARC SMP of the Schedule(s) and Milestone(s) for implementation of LUC components of response actions pertaining to lands owned or managed by NASA.

9.1.2 NASA shall provide access to the Site pursuant to Section XVI - ACCESS; and

9.1.3 NASA shall:

a. not use the land or allow activities which are inconsistent with any LUCs selected in any CERCLA response decision documents;

b. notify EPA, the State, and the Navy 45 days in advance of any proposed land use changes that are inconsistent with LUC objectives or the selected remedy;

c. not interfere with or allow activities which may interfere with any CERCLA response actions, including LUCs, implemented on such property;

d. establish internal, written procedures regarding excavation and similar matters to help ensure LUCs remain protective;

e. notify EPA, the State, and the Navy at least 30 days in advance prior to making changes to the internal, written procedures that may affect CERCLA response actions, including LUCs;

f. include a map, identifying the boundaries of the LUCs, with those internal, written procedures;

g. notify EPA, the State, and the Navy at least six months prior to any transfer or sale of lands affected by LUCs so that EPA, the State, and the Navy can be involved in discussions to ensure that appropriate provisions are included in the transfer terms or conveyance documents to maintain effective LUCs. Concurrent with the above notification of transfer, NASA will inform GSA that there are LUCs on the lands proposed for transfer or sale. If it is not possible for NASA to notify EPA, the State, and the Navy at least six months prior to any transfer or sale, then NASA will notify EPA, the State, and the Navy as soon as possible but no later than 60 days prior to the transfer or sale of any property subject to the LUCs. In addition to the land transfer notice and discussion provisions above, NASA further agrees to provide EPA, the State, and the Navy with similar notice, within the same time frames, as to federal-to-federal transfer of property. NASA shall provide a copy of executed deed or transfer document to EPA and the Navy; and

h. not modify or terminate LUCs, implementation actions, or modify land use without concurrence of EPA the State, and, where applicable, the Navy. NASA shall seek prior concurrence before any anticipated action that may disrupt the effectiveness of the LUCs or any action that may alter or negate the need for LUCs.

9.2 Operable Units

9.2.1 NASA shall develop, implement and report on Remedial Investigations and Feasibility Studies (RI/FSs) for the Operable Units (OUs) listed in Appendix A and new OUs established under Subsection 9.2.2. If an OU is modified under Subsection 9.2.3, and RI/FS work is appropriate for the modified OU, then NASA shall develop, implement and report on a RI/FS for the modified OU.

9.2.2 Any Party may propose that a new site within the Facility be designated as an OU. The proposal must be in writing to the other Parties and must state the reasons for designating a new OU. The proposal shall be discussed by all Project Managers within forty-five (45) days of the written notice. Dispute Resolution may be invoked if the Parties are not in agreement on the proposal of a specific OU. If Dispute Resolution is not invoked by the Parties within thirty (30) days after completion of the Project Managers' discussion concerning the proposal, or if the need for an OU is established through Dispute Resolution, the proposed new site shall be an OU, as that term is defined in Section II – DEFINITIONS of this Agreement.

9.2.3 A Party may propose that an established OU be modified. The proposal must be in writing to the other Parties, and must state the reasons for the modification. The proposal shall be discussed by the Project Managers within forty-five (45) days of the written notice. Dispute

Resolution may be invoked if the Parties are not in agreement on the proposal to modify a specific OU. If Dispute Resolution is not invoked within thirty (30) days after the Project Managers' discussion concerning the modification, or if the need for modifying an OU is established through Dispute Resolution, the OU, as defined in Section II – DEFINITIONS, shall be modified.

9.2.4 In the NASA Ames Research Center (ARC) Site Management Plan (SMP), NASA Ames shall include a Schedule and Milestone(s) for submitting RI/FS Work Plan(s) for the OUs in Appendix A, except for those OUs for which RI/FS Work Plans has already been submitted. When a new OU is established under Subsection 9.2.2, NASA Ames shall, in the next draft amendment to the NASA ARC SMP, propose a Milestone for submitting of a RI/FS Work Plan for the new OU. When an OU is modified under Subsection 9.2.3, and RI/FS work is appropriate for the modified OU, NASA Ames shall, in the next draft amendment to the NASA ARC SMP, propose a Milestone for submitting a RI/FS Work Plan for the modified OU. The RI/FS Work Plan(s) shall contain proposed Schedules and Milestone(s) for the submittal of the RI/FS Report(s). The Schedule(s) and Milestone(s) included in the Final RI/FS Work Plan(s) shall be incorporated into the SMP in accordance with Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN of this Agreement. The development of the FS(s) will proceed in accordance with Subsection 9.2.7 of this Agreement.

9.2.5 For those OUs/AOIs that the Parties determine represent a negligible or minimal risk and are strong candidates for no action, NASA shall submit a concise FS statement indicating negligible or minimal risks were found and no action is warranted. If the Parties determine that no action is required, a no-action Proposed Plan will be prepared. A Schedule for completing a no-action Proposed Plan will be developed in accordance with Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN of this Agreement.

9.2.6 RIs shall be conducted in accordance with the requirements and Schedules set forth in the approved RI/FS Work Plan(s) and NASA ARC SMP. RIs shall meet the purposes set forth in Section IV – PURPOSE, of this Agreement. A Baseline Risk Assessment shall be a component of the RIs. Final Site clean-up level criteria will only be determined following completion of the Baseline Risk Assessment.

9.2.7 NASA agrees it shall develop, implement, and report upon an FS for OUs/AOIs subject to a RI. The FS shall be conducted in accordance with the requirements and Schedules set forth in the NASA ARC SMP. The FS shall meet the purposes set forth in Section IV – PURPOSE of this Agreement.

9.3 Procedures for Interim Remedial Actions

9.3.1 NASA shall implement those Interim Remedial Actions (IRA) necessary to prevent, minimize, or eliminate risks to human health and the environment caused by the release of hazardous substances, pollutants, or contaminants. An IRA is identified, proposed, and implemented prior to a final Remedial Action. An IRA shall attain ARARs to the extent required by CERCLA or the NCP and be consistent with, and contribute to, the efficient performance of a final Remedial Action(s) taken at an OU or AOI. An IRA must be protective

of human health and the environment, and comply with CERCLA, the NCP, and State laws to the extent that they are legally applicable, or relevant and appropriate requirements in accordance with Section 121 of CERCLA, and this Agreement.

9.3.2 When a Party to this Agreement determines that an IRA is necessary for any OUs/AOIs within the Site, such Party shall notify, in writing, the other Parties, of the proposal. The Proposal Notification to the other Parties under this Subsection 9.3.2 shall at a minimum include the location(s) of such OUs/AOIs within the Site and the reason(s) the Party believes an IRA is required. Any Party may propose an IRA for those OU (s) most suitable for an Interim Remedial Action.

9.3.3 Within thirty (30) days of notification, any Party may request a meeting of the Parties to assist in expediting the decision to proceed with an IRA. If a dispute(s) arises over whether to address such an area(s) under this Agreement that cannot be settled between the Parties within thirty (30) days from completion of the meeting, the dispute(s) shall be immediately brought to the Dispute Resolution Committee (DRC) pursuant to Section XX – DISPUTE RESOLUTION.

9.3.4 After the determination that an IRA is required under this Agreement, NASA Ames shall, in the next draft amended NASA ARC SMP, submit to EPA and the State proposed Milestone(s) for the submission of Work Plan(s) for the performance of a Focused Feasibility Study (FFS) for the identified area(s). The Milestone(s) will be finalized in accordance with Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN. The Schedule and Milestone(s) included in the approved, final FFS Work Plan will immediately be incorporated in the SMP. The FFS shall include a limited number of proposed Interim Remedial Action alternatives. To the extent possible, the FFS shall provide an assessment of the degree to which these alternatives were analyzed during their development and screening. NASA shall develop, implement, and report upon each FFS in accordance with the requirements set forth in the final FFS Work Plan. NASA shall follow the steps outlined in Subsections 9.4.2 through 9.7.5 below.

9.4 Records of Decision and Plans for Remedial Action

9.4.1 This Subsection 9.4 shall apply to selection of remedial actions and any disputes relating thereto.

9.4.2 Within forty-five (45) days after finalization of a RI/FS or FFS, NASA shall submit a draft Proposed Plan to EPA and the State for review and comment as described in Section X – CONSULTATION. Within fourteen (14) days after receiving EPA's acceptance and the State's comments on the Proposed Plan, NASA shall publish its Proposed Plan for thirty (30) days of public review and comment. During the public comment period, NASA shall make the Proposed Plan and supporting analysis and information available to the public in the Administrative Record. NASA shall hold a public information meeting during the public comment period to discuss the preferred alternative for each Remedial Action. Copies of all written and oral public comments received will be provided to the Parties. Public review and comment shall be conducted in accordance with Section 117(a) of CERCLA, 42 U.S.C. Section 9617(a), and applicable EPA and State Guidance.

9.4.3 Following public comment, NASA, in consultation with EPA and the State, will determine if the Proposed Plan should be modified based on the comments received. These modifications will be made by NASA and the modified documents will be provided to EPA and the State for review. The Parties may recommend that additional public comment be solicited if modifications to the Proposed Plan substantially change the remedy originally proposed to the public. The determination concerning whether a Proposed Plan should be modified or whether additional public comment is necessary is subject to the dispute resolution provisions of this Agreement, Section XX – DISPUTE RESOLUTION.

9.4.4 NASA shall submit its draft ROD to EPA and the State within forty-five (45) days following the close of the public comment period, including any extensions, on the Proposed Plan. The draft ROD will include a Responsiveness Summary, in accordance with applicable EPA Guidance. Pursuant to CERCLA Section 120(e)(4)(A), 42 U.S.C. Section 9620(e)(4)(A), EPA and NASA, in consultation with the State, shall make the final selection of the remedial action(s).

9.4.5 The selection of a remedy that does not attain a legally applicable or relevant and appropriate standard, requirement, criteria or limitation is one basis on which the State may determine not to concur with a final remedial action plan. In accordance with CERCLA Section 121(f)(3)(A), 42 U.S.C. Section 9621(f)(3)(A), at least thirty (30) days prior to the publication of NASA's final remedial action plan, if NASA proposes to select a remedial action that does not attain a legally applicable or relevant and appropriate standard, requirement, criteria or limitation, NASA shall provide an opportunity for the State to concur or not concur in the selection of such plan. If the State concurs or does not act within thirty (30) days of receipt of notification by NASA of pending publication of the final remedial action plan, the remedial action may proceed. If the State does not concur, it may act pursuant to Section 121(f)(3)(B) of CERCLA, 42 U.S.C. Section 9621(f)(3)(B).

9.4.6 If EPA and NASA are unable to reach agreement on the selection of the remedy, after exhausting the Dispute Resolution process set forth in Section XX – DISPUTE RESOLUTION, then the Administrator shall select the remedy in accordance with all applicable laws and procedures.

9.4.7 Notice of the final ROD shall be published by the Party preparing it and shall be made available to the public prior to commencement of the remedial action, in accordance with Section 117(b) of CERCLA, 42 U.S.C. Section 9617(b). The final ROD shall include a statement that the State has concurred or not concurred with the selection of the remedy.

9.5 Remedial Design and Remedial Action

9.5.1 The NASA ARC SMP shall include a Target Date for submission of a preliminary/conceptual Remedial Design (RD) (thirty (30) percent design report); a Target Date for submission of the ninety (90) percent or pre-final Remedial Design; and a Deadline for the final Remedial Design. All design documents shall be prepared in accordance with this Agreement and applicable Guidance issued by EPA including *Principles and Procedures for*

Specifying Monitoring and Enforcement of Land Use Controls and Other Post-ROD Actions (as amended).

9.5.1.1 The RD shall provide the appropriate plans and specifications describing the intended remedial construction and shall include provisions necessary to ensure that the remedial action will achieve ARARs and performance standards identified in the ROD.

9.5.1.2 The RD shall describe short and long-term implementation actions, and responsibilities for the actions, to ensure long-term viability of the remedy, which may include both LUCs and an engineered portion (*e.g.*, landfill caps, treatment systems) of the remedy. The term "implementation actions" includes all actions to implement, operate, maintain, and enforce the remedy.

9.5.2 The Remedial Action (RA) Work Plan(s) shall at a minimum contain a Schedule for the completion of the Remedial Action, a Health and Safety Plan (HASP), a Sampling and Analysis Plan (SAP), and a Quality Assurance Project Plan (QAPP), Remedial Action Specifications, Erosion Control and Sedimentation Plan, Decontamination Plan, Remedial Action Contingency Plan, and provisions for operation and maintenance, if necessary. The Schedule contained in the final RA Work Plan(s) will be immediately incorporated into the NASA ARC SMP.

9.5.3 After the final design document is approved, pursuant to Section X – CONSULTATION, NASA shall begin performance of the Remedial Action in accordance with the ROD, final Remedial Design and the RA Work Plan. The Remedial Action shall be completed in accordance with the ROD, approved final Remedial Design and RA Work Plan and all applicable EPA and State Guidance.

9.5.4 Following completion of the RA at each OU and in accordance with the Schedule in the NASA ARC SMP, NASA shall prepare and submit to EPA and the State, a Remedial Action Completion Report (RACR) to show that remedial action objectives for an OU have been achieved. The RACR shall provide an explanation for any activities that were not conducted in accordance with the final RD and/or RA Work Plan(s). In addition, for long-term remedies where it is anticipated that remedial action objectives will be achieved over a long period, NASA shall submit to EPA and the State, according to the Schedule in the NASA ARC SMP, a RACR which shall document that physical construction is complete and the unit is operating as designed. The RACR(s) shall be prepared in accordance with this Agreement and applicable EPA and State Guidance.

9.6 Accelerated Operable Unit

9.6.1 Accelerated Operable Units (AOUs), as defined in Section II – DEFINITIONS, will follow a streamlined remedial process as set forth below. Any Party may propose in writing that an OU be conducted as an AOU. The Party proposing an AOU shall be responsible for drafting an AOU proposal, which shall clearly define the purpose, scope and goals of the AOU. NASA shall evaluate all proposed AOUs.

9.6.2 Within thirty (30) days of notification, any Party may request a meeting of the Parties to assist in expediting selection of an AOU. If dispute resolution is not invoked within thirty (30) days following receipt of a proposal for an AOU by the Parties, or thirty (30) days after the meeting, or if the need for an AOU is established through Section XX – DISPUTE RESOLUTION, the proposed AOU shall be incorporated into the NASA ARC SMP as an AOU. NASA agrees to pursue additional funding within twenty-one (21) days of establishment of the AOU in order to initiate the AOU.

9.6.3 Within fifteen (15) days after the determination that an AOU is required under this Agreement, NASA shall submit to EPA and the State proposed Deadlines for the submission of Work Plan(s) for the performance of an AOU Focused Feasibility Study (FFS) for the identified AOU(s). Each AOU FFS Work Plan shall contain a proposed Deadline for submittal of the AOU FFS and Proposed Plan, which will be incorporated into the next NASA ARC SMP. NASA shall develop, implement and report upon each AOU FFS in accordance with the requirements set forth in the final AOU FFS Work Plan. NASA shall follow the steps outlined in Subsections 9.4.2 through 9.5.4.

9.7 Supplemental Response Action

9.7.1 The Parties recognize that subsequent to finalization of a ROD, a need may arise for one or more supplemental response actions to remedy continuing or additional releases or threats of releases of hazardous substances, pollutants, or contaminants where NASA is a source at or from the Site. If such release or threat of release may present an immediate threat to public health or welfare or the environment, it shall be addressed pursuant to Section XVIII – REMOVAL AND EMERGENCY ACTIONS. If such release or threat of release does not present an immediate threat to public health or welfare or the environment, it shall be addressed pursuant to Subsections 9.7.2 through 9.8.2.

9.7.2 A supplemental response action shall be undertaken only when:

9.7.2.1 A determination is made that:

9.7.2.1.1 As a result of the release or threat of release of a hazardous substance, pollutant, or contaminant where NASA is a source at or from the Site, an additional response action is necessary and appropriate to ensure the protection of human health or the environment; or,

9.7.2.1.2 There is or has been a release of hazardous waste or hazardous constituents into the environment, NASA is a source of the release, and corrective response action is necessary to protect human health or the environment; and,

9.7.2.2 Either of the following conditions is met for any determination made pursuant to Subsection 9.7.2.1, above:

9.7.2.2.1 For supplemental response actions proposed after finalization of the ROD, but prior to EPA Certification, the determination must be based upon conditions at the Site that were

unknown at the time of finalization of the ROD or based upon new information received in whole or in part by EPA following finalization of the ROD; or

9.7.2.2.2 For supplemental response actions proposed after EPA Certification, the determination must be based upon conditions at the Site that were unknown at the time of EPA Certification or based upon new information received in whole or in part by EPA or the State following EPA Certification.

9.7.3 If, subsequent to ROD signature, any Party concludes that a supplemental response action is necessary, based on the criteria set forth in Subsection 9.7.2, such Party shall promptly notify the others of its conclusion in writing. The notification shall specify the nature of the modification needed and the new information on which it is based. The Project Managers shall confer and attempt to reach consensus on the need for such an action within thirty (30) days of receiving such notification. If the Project Managers fail to reach consensus, any Party may notify the other Parties in writing within ten (10) days thereafter that it intends to invoke dispute resolution. If the Project Managers are still unable to reach consensus within fourteen (14) days of the issuance of notice invoking dispute resolution, the question of the need for the supplemental response action shall be resolved through dispute resolution.

9.7.4 If the Project Managers agree, or if it is determined through dispute resolution, that a supplemental response action is needed based on the criteria set forth in Subsection 9.7.2, NASA shall propose a Deadline for submittal of the Supplemental Work Plan(s) and a Schedule for performance of the Work there under to EPA and the State in the next draft amended NASAARC SMP.

9.7.5 After finalization of a Supplemental Work Plan, NASA shall conduct a Supplemental Response Action RI/FS. Following finalization of the Supplemental Response Action RI/FS, the procedures described in Subsections 9.4 and 9.5 shall be followed.

9.8 Construction Completion and Site Completion.

9.8.1 Construction Completion. NASA agrees that it shall provide written notice to EPA and the State when physical construction of all remedial actions for all OUs for which it is responsible is complete and will incorporate in the notice reference to the supporting RACRs.

9.8.2 Site Completion. The Parties acknowledge that Site Completion cannot be attained until remedial action conducted by all parties conducting remedial actions at the Site is completed. In order to ensure that there is proper documentation to allow for Site Completion, following completion of remedial action at the last OU for which NASA is responsible and in accordance with the Schedule in the NASA ARC SMP, NASA shall prepare and submit to EPA, the Navy, and the State a NASA ARC Remedial Action Completion Report (RACR) to show that remedial action objectives for all OUs for which NASA is responsible have been achieved. The NASA ARC RACR shall provide an explanation for any activities that were not conducted in accordance with the final RD and/or RA Work Plan(s). The information provided therein shall document compliance with statutory requirements and provide a consolidated record of all remedial activities for all OUs at the Site for which NASA is responsible in accordance with

applicable EPA Guidance. In order for a Site to be eligible for completion, the following criteria must be met:

9.8.2.1 Remedial Action Objectives specified in all RODs have been met, and all cleanup actions and other measures identified in the RODs have been successfully implemented;

9.8.2.2 The constructed remedies are operational and performing according to engineering specifications;

9.8.2.3 The Site is protective of human health and the environment;

9.8.2.4 LUCs are in place as appropriate; and

9.8.2.5 The only remaining activities, if any, at the Site are long term management activities (which may include long-term monitoring).

9.8.3 Information provided for RA completion shall be signed by NASA's signatory authority or designee, certifying that remedial activities that are the responsibility of NASA at the Site have been completed in full satisfaction of the requirements of this Agreement. Certification by NASA may include a request for EPA certification of remedial action completion for areas for which NASA is responsible at the Site. Within ninety (90) days of EPA's receipt of NASA's request for certification of Site completion for areas for which NASA is responsible, EPA, in consultation with the State, shall:

9.8.3.1 Certify that all response actions for which NASA is responsible have been completed at the Site in accordance with CERCLA, the NCP and this Agreement, based on conditions known at the time of certification; or

9.8.3.2 Deny NASA's request for certification of completion for areas within the Site for which NASA is responsible, stating the basis of its denial from the standards identified in 9.8.2 and detailing the additional Work needed for completion and certification.

9.8.3.3 If EPA, in consultation with the State, denies NASA's request for certification of completion for areas within the Site for which NASA is responsible in accordance with this Agreement, NASA may invoke dispute resolution in accordance with Section XX – DISPUTE RESOLUTION of this Agreement within twenty (20) days of receipt of the written denial of certification or determination that additional Work is necessary. If the denial of certification is upheld through the dispute resolution process, NASA will perform the requested additional Work.

9.8.3.4 If dispute resolution is not invoked, or if a denial of certification is upheld through dispute resolution, NASA shall, in the next draft amended NASA ARC SMP submitted after receipt of the written denial of certification or dispute resolution finding, propose a Deadline for the submittal of a draft Supplemental Work Plan. The draft Supplemental Work Plan shall contain a Schedule for completion of the additional Work required. This Schedule, once approved, will be incorporated in the NASA ARC SMP. After performing the additional Work,

NASA may resubmit a request for certification to EPA as outlined in this Subsection 9.8.3. EPA, in consultation with the State, shall then grant or deny certification pursuant to the process set forth in this Subsection 9.8.3.

X. CONSULTATION

10.1 Review and Comment Process for Draft and Final Documents, Applicability

10.1.1 The provisions of this Section establish the procedures that shall be used by the Parties to provide each other with appropriate notice, review, comment, and response to comments regarding RI/FS and RD/RA documents, specified herein as either Primary or Secondary Documents. As of the Effective Date of this Agreement, all draft and final reports for any deliverable document identified herein shall be prepared, distributed and subject to dispute in accordance with Subsections 10.2 through 10.10 below.

10.1.2 The designation of a document as "draft" or "final" is solely for purposes of consultation with EPA and the State in accordance with this Section. Such designation does not affect the obligation of the Parties to issue documents, which may be referred to herein as "final," to the public for review and comment as appropriate and as required by law.

10.2 General Process for RI/FS and RD/RA Documents

10.2.1 Primary Documents include those documents that are major, discrete portions of RI/FS or RD/RA activities. Primary Documents are initially issued by NASA in draft subject to review and comment by EPA and the State. Following receipt of comments on a particular draft Primary Document, NASA will respond to the comments received and issue a draft final Primary Document subject to dispute resolution. The draft final Primary Document will become the final Primary Document upon the earlier of (i) thirty (30) days after the period established for review of a draft final primary document if dispute resolution is not invoked, or (ii) modification by decision of the dispute resolution process.

10.2.2 Secondary Documents include those reports that are discrete portions of the Primary Documents and are typically input or feeder documents. Secondary Documents are issued by NASA in draft, subject to review and comment by EPA and the State. Although NASA will respond to comments received, the draft Secondary Documents may be finalized in the context of the corresponding Primary Documents. A Secondary Document may be disputed at the time the corresponding draft final Primary Document is issued.

10.3 Primary Documents

10.3.1 NASA shall complete and transmit draft reports for the following Primary Documents to EPA and the State for review and comment in accordance with the provisions of this Section, except that the annual amendments to the NASA ARC SMP shall be reviewed and commented on in accordance with Sections XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN and XII – BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN:

(1) RI/FS and FFS Work Plans including SAP and QAPP.

(2) Remedial Investigation Reports (including Risk Assessments for human health and the environment)

(3) FS and FFS Reports

(4) Proposed Plans

(5) Records of Decision

(6) Final Remedial Designs

(7) Remedial Action Work Plans

(8) Remedial Action Completion Reports

(9) the NASA ARC SMP and each annual amendment

10.3.2 Only the draft final Primary Documents identified above (and their amendments) shall be subject to dispute resolution. NASA shall complete and transmit draft Primary Documents in accordance with the Schedule and Deadlines established in Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN.

10.4 Secondary Documents

10.4.1 All Secondary Documents shall be prepared in accordance with the NCP and applicable EPA Guidance. NASA shall complete and transmit drafts of the following Secondary Documents to EPA and the State for review and comment in accordance with the provisions of this Section:

(1) Initial Remedial Action / Data Quality Objectives (DQOs)

(2) Non-Time-Critical Removal Action Plans (NTCRA)(40 C.F.R. Section 300.415(b)(4)(ii))

(3) Pilot/Treatability Study Work Plans

(4) Pilot/Treatability Study Reports

(5) Engineering Evaluation/Cost Analysis Reports

(6) Preliminary/Conceptual Remedial Designs

(7) Prefinal Remedial Designs

(8) Well Closure Methods and Procedures

(9) Removal Action Memoranda

10.4.2 Although EPA and the State may comment on the draft reports for the Secondary Documents listed above, such documents shall not be subject to dispute resolution except as provided by Subsection 10.2 hereof. Target Dates shall be established for the completion and transmission of draft Secondary Documents pursuant to Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN.

10.5 Meetings of the Project Managers on Development of Documents. The Project Managers shall meet approximately every ninety (90) days, except as otherwise agreed by the Parties, to review and discuss the progress of work being performed at the Site and on the Primary and Secondary Documents. Prior to preparing any draft report specified in Subsections 10.3 and 10.4 above, the Project Managers shall meet or confer by telephone to discuss the report results in an effort to reach a common understanding, to the maximum extent practicable, with respect to the results to be presented in the draft report.

10.6 Identification and Determination of Potential ARARs

10.6.1 For those Primary Documents or Secondary Documents that consist of or include ARAR determinations, the Project Managers shall meet prior to the issuance of a draft report, to identify and propose, to the best of their ability, all potential ARARs pertinent to the document being addressed. The State shall identify all potential State ARARs as early in the remedial process as possible consistent with the requirements of CERCLA Section 121 and the NCP.

10.6.2 NASA shall consider any written interpretations of ARARs provided by the State. Draft ARAR determinations shall be prepared by NASA in accordance with CERCLA Section 121(d)(2), the NCP, and pertinent Guidance issued by EPA that is not inconsistent with CERCLA and the NCP.

10.6.3 In identifying potential ARARs, the Parties recognize that actual ARARs can be identified only on a site-specific basis and that ARARs depend on the specific hazardous substances, pollutants and contaminants at a site, the particular actions proposed as a remedy and the characteristics of a site. The Parties recognize that ARAR identification is necessarily an iterative process and that potential ARARs must be reexamined throughout the RI/FS process until a ROD is issued.

10.7 Review and Comment on Draft Documents

10.7.1 NASA shall complete and transmit each draft Primary Document to EPA and the State, on or before the corresponding Deadline established for the issuance of the document. NASA shall complete and transmit the draft Secondary Document in accordance with the Target Dates established for the issuance of such reports established pursuant to Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN of this Agreement.

10.7.2 Unless the Parties mutually agree to another time period, all draft documents, except the annual amendments to the NASA ARC SMP, the prefinal Remedial Design and the final Remedial Design, shall be subject to a sixty (60) day period for review and comment. The annual amendments to the NASA ARC SMP shall be reviewed and commented on in accordance with Section XII – BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN or as agreed to by the Parties. The Parties recognize that time periods for review and comment on the draft Remedial Design and Remedial Action Work Plans may need to be expedited in order for NASA to satisfy the requirement of Section 120(e)(2) of CERCLA, 42 U.S.C. Section 9620(e)(2). The prefinal Remedial Design shall be subject to a forty-five (45) day period for review and comment. The final Remedial Design will be subject to a two (2) week period for review and comment by the Parties. If the final Remedial Design differs substantially from the prefinal Remedial Design, EPA or the State may extend the two (2) week review and comment period for an additional two (2) weeks by providing written notice to NASA prior to the end of the initial two (2) week comment period. Review of any document by EPA and the State, may concern all aspects of the document (including completeness) and should include, but is not limited to, technical evaluation of any aspect of the document, and consistency with CERCLA, the NCP, and any pertinent Guidance or policy promulgated by EPA, and with applicable State law. Comments by EPA and the State shall be provided with adequate specificity so that NASA may respond to the comment and, if appropriate, make changes to the draft document. Comments shall refer to any pertinent sources of authority or references upon which the comments are based, and, upon request of NASA, EPA or the State shall provide a copy of the cited authority or reference. In cases involving complex or unusually lengthy reports, EPA or the State may extend the sixty (60) day comment period for an additional thirty (30) days by written notice to NASA prior to the end of the sixty (60) day period. On or before the close of any comment period, EPA and the State shall transmit their written comments to NASA.

10.7.3 The review period for documents shall not begin until the submission date specified in the NASA ARC SMP.

10.7.4 Representatives of NASA shall make themselves readily available to EPA and the State during the comment period for purposes of informally responding to questions and comments on draft documents. Oral comments made during such discussions need not be the subject of a written response by NASA at the close of the comment period.

10.7.5 In commenting on a draft document that contains a proposed ARAR determination, EPA or the State shall include a reasoned statement of whether they object to any portion of the proposed ARAR determination. To the extent that EPA or the State objects, it shall explain the basis for its objection in detail and shall identify any ARARs which it believes were not properly addressed in the proposed ARAR determination.

10.7.6 Following the close of the comment period for a draft document, NASA shall give full consideration to all written comments on the draft document submitted during the comment period. Within sixty (60) days of the close of the comment period on a draft Secondary Document, NASA shall transmit to EPA and the State its written response to comments received

within the comment period. Within sixty (60) days of the close of the comment period on a Draft Primary Document, NASA shall transmit to EPA and the State a Draft Final Primary Document, which shall include NASA's response to all written comments received within the comment period. While the resulting draft final document shall be the responsibility of NASA Ames, it shall be the product of consensus to the maximum extent possible.

10.7.7 NASA may extend the 60-day period for either responding to comments on a draft document or for issuing the draft final Primary Document for an additional thirty (30) days by providing timely notice to EPA and the State. In appropriate circumstances, this time period may be further extended in accordance with Section XIII – EXTENSIONS.

10.8 Availability of Dispute Resolution for draft final Primary Documents:

10.8.1 Dispute resolution shall be available to the Parties for draft final Primary Documents as set forth in Section XX – DISPUTE RESOLUTION.

10.8.2 When dispute resolution is invoked on a draft final Primary Document, Work may be stopped in accordance with the procedures set forth in Section XX – DISPUTE RESOLUTION.

10.9 Finalization of Documents. The draft final Primary Document shall serve as the final Primary Document if no Party invokes dispute resolution regarding the document or, if invoked, at the completion of the dispute resolution process should NASA's position be sustained. If NASA's determination is not sustained in the dispute resolution process, NASA shall prepare, within not more than thirty-five (35) days, a revision of the draft final document, which conforms to the results of dispute resolution. In appropriate circumstances, the time period for this revision period may be extended in accordance with Section XIII – EXTENSIONS.

10.10 Subsequent Modification of Final Document

10.10.1 Following finalization of any Primary Document pursuant to Subsection 10.9 above, any Party to this Agreement may seek to modify the document, including seeking additional field work, pilot studies, computer modeling or other supporting technical work, only as provided in Subsections 10.10.2 and 10.10.3 below.

10.10.2 A Party may seek to modify a document after finalization if it determines, based on new information (*i.e.*, information that became available, or conditions that became known, after the document was finalized) that the requested modification is necessary. A Party may seek such a modification by submitting a concise written request to the Project Managers of the other Parties. The request shall specify the nature of the requested modification and how the request is based on new information.

10.10.3 In the event that a consensus is not reached by the Project Managers on the need for a modification, any Party may invoke dispute resolution to determine if such modification shall be conducted. Modification of a document shall be required only upon a showing that:

10.10.3.1 The requested modification is based on significant new information; and

10.10.3.2 The requested modification could be of significant assistance in evaluating impacts on the public health or the environment, in evaluating the selection of remedial alternatives, or in protecting human health and the environment.

10.10.4 Nothing in this Subsection 10.10 shall alter EPA's or the State's ability to request the performance of additional work that was not contemplated by this Agreement. NASA's obligation to perform such work must be established by either a modification of a report or document or by amendment to this Agreement.

XI. DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN

11.1 This Agreement establishes a process for creating and amending the NASA ARC SMP. An initial draft NASA ARC SMP shall be submitted within sixty (60) days of the Effective Date of this Agreement. The NASA ARC SMP and each annual amendment to the NASA ARC SMP shall be Primary Documents. Milestones established in the NASA ARC SMP or established in a final amendment to the NASA ARC SMP remain unchanged unless otherwise agreed to by the Parties or unless directed to be changed pursuant to the agreed dispute resolution process set out in Section XX. In addition, if an activity is fully funded in the current Fiscal Year, Milestones associated with the performance of Work and submittal of Primary Documents associated with such activity (even if they extend beyond the current Fiscal Year) shall be enforceable.

11.2 The NASA ARC SMP includes proposed actions for both CERCLA responses and actions that would otherwise be handled pursuant to RCRA corrective actions per Section VIII – STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION, and outlines all response activities and associated documentation to be undertaken at the Site by NASA. The NASA ARC SMP incorporates all existing Milestones contained in approved Work Plans, and all Milestones approved in future Work Plans immediately become incorporated into the NASA ARC SMP.

11.3 Milestones in the NASA ARC SMP reflect the priorities agreed to by the Parties through a process of "risk, plus other factors" priority setting. Site activities have been prioritized by weighing and balancing a variety of factors including, but not limited to: (i) current, planned, or potential uses of NASA Ames; (ii) ecological impacts; (iii) impacts on human health; (iv) intrinsic and future value of affected resources; (v) cost effectiveness of the proposed activities; (vi) environmental justice considerations; (vii) regulatory requirements; and, (viii) actual and anticipated funding levels. While Milestones should not be driven by budget targets, such targets should be considered when setting Milestones. Furthermore, in setting and modifying Milestones, the Parties agree to make good faith efforts to accommodate Federal fiscal constraints, which include budget targets established by NASA.

11.4 The NASA ARC SMP and its annual amendments include:

11.4.1 A description of actions necessary to mitigate any immediate threat to human health or the environment;

11.4.2 A listing of all currently identified OUs (including AOUs), Interim Remedial Actions, Supplemental Response Actions, and Time-Critical Removal Actions (TCRAs) and Non-Time-Critical Removal Actions (NTCRAs) covered or identified pursuant to this Agreement;

11.4.3 Activities and Schedules for response actions covered by the NASA ARC SMP, including at a minimum:

11.4.3.1 Identification of any Primary Actions;

11.4.3.2 All Deadlines;

11.4.3.3 All Near-Term Milestones;

11.4.3.4 All Out Year Milestones;

11.4.3.5 All Target dates;

11.4.3.6 Schedule for initiation of Remedial Designs, Interim Response Actions, NTCRAs, AOUs, and any initiation of other planned response action(s) covered by this Agreement; and

11.4.3.7 All Project End Dates.

11.5 NASA Ames shall submit amendments to the NASA ARC SMP on an annual basis as provided in Section XII – BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN. All amendments to the NASA ARC SMP shall meet all of the requirements set forth in this Section.

11.6 The Milestones established in accordance with this Section and Section XII – BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN remain the same unless otherwise agreed by the Parties, or unless changed in accordance with the dispute resolution procedures set out in Subsections 12.5 and 12.6. The Parties recognize that possible bases for requests for changes or extensions of the Milestones include but are not limited to: (i) the identification of significant new Site conditions at this facility; (ii) reprioritization of activities under this Agreement caused by changing priorities or new site conditions elsewhere in NASA; (iii) reprioritization of activities under this Agreement caused by budget adjustments (e.g., rescissions, inflation adjustments, and reduced Congressional appropriations); (iv) an event of Force Majeure; (v) a delay caused by another Party's failure to meet any requirement of this Agreement; (vi) a delay caused by the good faith invocation of dispute resolution or the initiation of judicial action; (vii) a delay caused, or that is likely to be caused, by the grant of an extension in regard to another timetable and Deadline or Schedule; and (viii) any other event or series of events mutually agreed to by the Parties as constituting good cause.

11.7 The Deadlines established in the NASA ARC SMP and its amendments shall be published by EPA and the State.

XII. BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN

12.1 NASA, as a Federal agency, is subject to fiscal controls, hereinafter referred to as the Planning, Programming and Budget Execution (PPBE) process. The PPBE process is used to review total requirements for NASA programs and make appropriate adjustments within the PPBE for each program while adhering to the overall PPBE control. The Parties recognize that the PPBE process is a multi-year process. The Parties also agree that all Parties should be involved in the full cycle of PPBE activities as specified in this Agreement. Further, the Parties agree that each Party should consider the factors listed in Subsection 11.3, including Federal fiscal constraints as well as each of the other factors, in their priority-setting decisions. Initial efforts to close any gap between cleanup needs and funding availability shall be focused on the identification and implementation of cost savings.

Facility-Specific Budget Building

12.2 In order to promote effective involvement by the Parties in the PPBE process, the Parties will meet at the Project Manager level for the purpose of (1) reviewing the PPBE controls (2) developing a list of requirements/Work to be performed by NASA Ames at the Site for inclusion in NASA's PPBE process. Unless the Parties agree to a different time frame, NASA Ames agrees to notify the other Parties within ten (10) days of receipt, at the Project Manager level, that budget controls have been received. Unless the Parties agree to a different time frame or agree that a meeting is not necessary, the Parties will meet, at the Project Manager level, within thirty (30) days of receiving such notification to discuss the budget controls. However, this consultation must occur at least ten (10) days prior to NASA Ames' initial budget submission to NASA HQ. NASA Ames will develop the budget estimate for all work identified by the Parties and include the estimate in NASA Ames' PPBE budget submission to NASA HQ for Environmental Compliance and Restoration (ECR) program funding. In the event that the Project Managers cannot agree on funding levels required to perform all Work outlined in the SMP, the Parties agree to make reasonable efforts to informally resolve these disagreements, either at the immediate or secondary supervisor level. If agreement cannot be reached informally within a reasonable period of time, NASA shall resolve the disagreement, if possible with the concurrence of all Parties, and notify each Party. If all Parties do not concur in the resolution, NASA Ames will forward to NASA HQ its budget request with the views of the Parties not in agreement and also inform NASA HQ of the possibility of future enforcement action should the money requested not be sufficient to perform the Work subject to disagreement. In addition, if NASA's budget submission to NASA HQ relating to the terms and conditions of this Agreement does not include sufficient funds to complete all Work in the existing SMP, such budget submission shall include supplemental reports that fully disclose the Work required by the existing SMP, but not included in the budget request due to fiscal controls (e.g., a projected budget shortfall). These supplemental reports shall accompany the cleanup budget that NASA Ames submits through its NASA HQ until the budget shortfall has been satisfied. If the budget shortfall is not satisfied, the supplemental reports shall be included in NASA Ames' budget submission to the NASA HQ.

NASA Budget for Clean Up Activities

12.3 NASA Ames shall forward to the other Parties documentation of the budget requests (and any supplemental reports) for NASA Ames remediation activities at the Site, as submitted by NASA Ames to NASA HQ, within fourteen (14) days after the submittal of such documentation to NASA HQ.

Amended NASA ARC SMP

12.4 No later than June 15 of each year after the initial adoption of the NASA ARC SMP, NASA Ames shall submit to the other Parties a draft amendment to the NASA ARC SMP. When formulating the draft amendment to the NASA ARC SMP, NASA Ames shall consider funding circumstances and "risk plus other factors" outlined in Subsection 11.3 to evaluate whether the previously agreed upon Milestones should change. Prior to proposing changes to Milestones in its annual amendment to the NASA ARC SMP, NASA Ames will first offer to meet with the other Parties to discuss the proposed changes. The Parties will attempt to agree on Milestones before NASA Ames submits its annual amendment by June 15, but failure to agree on such proposed changes does not modify the June 15 date, unless agreed on by all the Parties. Any proposed extensions or other changes to Milestones must be explained in a cover letter to the draft amendment to the NASA ARC SMP. The draft amendment to the NASA ARC SMP should reflect any agreements made by the Parties during the PPBE process outlined in this Section. Resolution of any disagreement over adjustment of Milestones pursuant to this Subsection shall be resolved pursuant to Subsection 12.4.1.

12.4.1 The Parties shall meet as necessary to discuss the draft amendment to the NASA ARC SMP. The Parties shall use the consultation process contained in Section X – CONSULTATION, except that none of the Parties will have the right to use the extension provisions provided therein and comments on the draft amendment will be due to NASA Ames no later than thirty (30) days after receipt by EPA and the State of the draft amendment. If either EPA or the State provide comments and are not satisfied with the draft amendment during this comment period, the Parties shall meet to discuss the comments within fifteen (15) days of NASA Ames' receipt of comments on the draft amendment. The draft final amendment to the NASA ARC SMP will be due from NASA Ames no later than thirty (30) days after the end of the EPA and State comment period. During this second 30-day time period, NASA Ames will, as appropriate, make revisions and re-issue a revised draft herein referred to as the draft final amendment. To the extent that Section X – CONSULTATION contains time periods differing from these 30 day periods, this provision will control for consultation on the amendment to the SMP.

12.4.1.1 If NASA Ames proposes, in the draft final amendment to the NASA ARC SMP, modifications of Milestones to which either EPA or the State have not agreed, those proposed modifications shall be treated as a request by NASA Ames for an extension. Milestones may be extended during the NASA ARC SMP review process by following Subsections 12.4 through 12.5.1. All other extensions will be governed by Section XIII – EXTENSIONS. The time period for EPA to respond to the request for extension will begin on the date EPA receives the draft final amendment to the NASA ARC SMP, and EPA and the State shall advise NASA Ames in writing of their respective positions on the request within thirty days. If EPA and the State approve of NASA Ames' draft final amendment, the document shall then await finalization in

accordance with Subsections 12.4.2 and 12.5. If EPA denies the request for extension, then NASA Ames may amend the NASA ARC SMP in conformance with EPA and State comments or seek and obtain a determination through the dispute resolution process established in Section XX – DISPUTE RESOLUTION within 21 days of receipt of notice of denial. Within twenty-one (21) days of the conclusion of the dispute resolution process, NASA Ames shall revise and reissue, as necessary, the draft final amendment to the NASA ARC SMP. If EPA or the State initiates a formal request for a modification to the NASA ARC SMP to which NASA Ames does not agree, EPA or the State may initiate dispute resolution as provided in Section XX – DISPUTE RESOLUTION with respect to such proposed modification. In resolving a dispute, the persons or person resolving the dispute shall give full consideration to the bases for changes or extensions of the Milestones referred to in Subsection 11.6 asserted to be present, and the facts and arguments of each of the Parties.

12.4.1.2 Notwithstanding Subsection 12.4.1.1, if NASA Ames proposes, in the draft final amendment to the NASA ARC SMP, modifications of Project End Dates which are intended to reflect the time needed for implementing the remedy selected in the Record of Decision but to which either EPA or the State have not agreed, those proposed modifications shall not be treated as a request by NASA Ames for an extension, but consistent with Section XX – DISPUTE RESOLUTION, EPA or the State may initiate dispute resolution with respect to such Project End Date.

12.4.1.3 In any dispute under this Section, the time periods for the standard dispute resolution process contained in Subsections 20.2, 20.5, and 20.6 of Section XX – DISPUTE RESOLUTION shall be reduced by half in regard to such dispute, unless the Parties agree to dispute directly to the Senior Executive Committee (SEC) level.

12.4.2 NASA Ames shall finalize the draft final amendment as a final amendment to the NASA ARC SMP consistent with the mutual consent of the Parties, or in the absence of mutual consent, in accordance with the final decision of the dispute resolution process. The draft final amendment to the NASA ARC SMP shall not become final until twenty-one (21) days after NASA HQ has received notification of Congress's authorization and appropriation of funds and NASA has determined that its ECR funding is sufficient to complete Work in the draft final NASA ARC SMP or, in the event of a funding shortfall, following the procedures in Subsection 12.5. However, upon approval of the draft final amendment or conclusion of the dispute resolution process, the Parties shall continue to implement any previously approved Work in the NASA ARC SMP while awaiting official notification of Congress's authorization and appropriation.

Resolving Appropriations Shortfalls

12.5 After authorization and appropriation of funds by Congress and within twenty-one (21) days after NASA Ames has received official notification of its ECR funding, NASA Ames shall determine if planned Work (as outlined in the draft final amendment to the NASA ARC SMP) can be accomplished with the allocated funds. (1) If the allocated funds are sufficient to complete all planned Work for that fiscal year and there are no changes required to the draft final amendment to the NASA ARC SMP, NASA Ames shall immediately forward a letter to the

other Parties indicating that the draft final amendment to the NASA ARC SMP has become the final amendment to the NASA ARC SMP. (2) If NASA Ames determines within the 21-day period specified above that the allocated funds are not sufficient to accomplish the planned Work for the Site (an appropriations shortfall), NASA Ames shall immediately notify the Parties. The Project Managers shall meet within thirty (30) days to determine if planned Work (as outlined in the draft final amendment to the NASA ARC SMP) can be accomplished through: 1) re-scoping or rescheduling activities in a manner that does not cause previously agreed upon Near Term Milestones and Out Year Milestones to be missed; or 2) developing and implementing new cost-saving measures. If, during this thirty (30) day discussion period, the Parties determine that rescoping or implementing cost-saving measures are not sufficient to offset the appropriations shortfall such that Near Term Milestones, Out Year Milestones, and Project End Dates should be modified, the Parties shall discuss these changes and develop modified Milestones. Such modifications shall be based on the "Risk Plus Other Factors" prioritization process discussed in Subsection 11.3, and shall be specifically identified by NASA Ames. NASA Ames shall submit a new draft final amendment to the SMP to the other Parties within thirty (30) days of the end of the 30 day discussion period. In preparing the revised draft final amendment to the SMP, NASA Ames shall give full consideration to EPA and State input during the 30-day discussion period. If the EPA and State concur with the modifications made to the draft final amendment to the NASA ARC SMP, EPA and the State shall notify NASA Ames and the revised draft final amendment shall become the final amendment. In the case of modifications of Milestones due to appropriations shortfalls, those proposed modifications shall, for purposes of dispute resolution, be treated as a request by NASA Ames for an extension, which request is treated as having been made on the date that EPA receives the new draft final NASA ARC SMP or draft final amendment to the NASA ARC SMP. EPA and the State shall advise NASA in writing of their respective positions on the request within twenty-one (21) days. NASA may seek and obtain a determination through the dispute resolution process established in Section XX - DISPUTE RESOLUTION. NASA may invoke dispute resolution within fourteen days of receipt of a statement of non-concurrence with the requested extension. In any dispute concerning modifications under this Section, the Parties will submit the dispute directly to the SEC level, unless the Parties agree to utilize the standard dispute resolution process, in which case the time periods for the dispute process contained in Subsections 20.2, 20.5 and 20.6 of Section XX – DISPUTE RESOLUTION shall be reduced by half in regard to such dispute. Within twenty-one (21) days after the conclusion of the dispute resolution process, NASA Ames shall revise and reissue, as necessary, the final amendment to the NASA ARC SMP.

12.5.1 It is understood by all Parties that NASA Ames will work with representatives of the other Parties to reach consensus on the reprioritization of Work made necessary by any annual appropriations shortfalls or other circumstances as described in Section 12.6.

Public Participation

12.6 In addition to any other provision for public participation contained in this Agreement, the development of the NASA ARC SMP, including its annual amendments, shall include participation by members of the public interested in this action. NASA must ensure that the opportunity for such public participation is timely; but this Subsection 12.6 shall not be subject to Section XXI – STIPULATED PENALTIES.

12.6.1 The Parties will meet, after seeking the views of the general public, and determine the most effective means to provide for participation by members of the public interested in the development of the NASA ARC SMP and its annual amendments. The "members of the public interested in this action" may be represented by inclusion of the Moffett Restoration Advisory Board (RAB) or by other appropriate means.

12.6.2 NASA shall provide timely notification under Section 12.5, regarding budget allocation to the members of the public interested in this action.

12.6.3 NASA shall provide opportunity for discussion under Sections 12.2, 12.4, and 12.5 to the members of the public interested in the development of the NASA ARC SMP and its annual amendments.

12.6.4 NASA shall ensure that public participation provided for in this Subsection 12.6 complies with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.

XIII. EXTENSIONS

13.1 A Schedule, Deadline or Milestone shall be extended upon receipt of a timely request for extension and when good cause exists for the requested extension. Any request for extension by NASA shall be submitted in writing and shall specify:

13.1.1 The Deadline or Milestone that is sought to be extended;

13.1.2 The length of the extension sought;

13.1.3 The good cause(s) for the extension;

13.1.4 Any related Deadline or Milestone that would be affected if the extension were granted; and

13.1.5 Any related schedule that would be affected for any CERCLA work at the Site, if the extension were granted.

13.2 Good cause exists for an extension when sought in regard to:

13.2.1 An event of Force Majeure;

13.2.2 A delay caused by another Party's failure to meet any requirement of this Agreement;

13.2.3 A delay caused by the good faith invocation of dispute resolution or the initiation of judicial action;

13.2.4 A delay caused, or which is likely to be caused, by the grant of an extension in regard to another Deadline or Milestone; and

13.2.5 Any other event or series of events mutually agreed to by the Parties as constituting good cause.

13.3 Absent agreement of the Parties with respect to the existence of good cause, NASA may seek and obtain a determination through the dispute resolution process that good cause exists.

13.4 Within seven (7) days of receipt of a request for an extension of a Deadline or a Milestone, the other Parties shall advise the requesting Party in writing of their positions on the request. Any failure by the other Parties to respond within the seven (7) day period shall be deemed to constitute concurrence in the request for extension. If a Party does not concur in the requested extension, it shall include in its statement of non-concurrence an explanation of the basis for its position.

13.5 If there is consensus among the Parties that the requested extension is warranted, NASA shall extend the affected Deadline or Milestone accordingly. If there is no consensus among the Parties as to whether all or part of the requested extension is warranted, the Deadline or Milestone shall not be extended except in accordance with a determination resulting from the dispute resolution process.

13.6 Within seven (7) days of receipt of a statement of non-concurrence with the requested extension, NASA may invoke dispute resolution.

13.7 A timely and good faith request for an extension shall toll any assessment of stipulated penalties or application for judicial enforcement of the affected Deadline or Milestone until a decision is reached on whether the requested extension will be approved. If dispute resolution is invoked and the requested extension is denied, stipulated penalties may be assessed and may accrue from the date of the original Deadline or Milestone. Following the grant of an extension, an assessment of stipulated penalties or an application for judicial enforcement may be sought only to compel compliance with the Deadline or Milestone as most recently extended.

XIV. PROJECT MANAGERS

14.1 On or before the Effective Date of this Agreement, EPA, the State, and NASA, shall each designate a Project Manager and notify the other Parties of the name and address of its Project Manager. The Project Managers shall be responsible for assuring proper implementation of all Work performed under the terms of the Agreement. To the maximum extent practicable, communications between NASA, EPA and the State on all documents, including reports, comments and other correspondence concerning the activities performed pursuant to this Agreement, shall be directed through the Project Managers. The Parties may designate an Alternate Project Manager to exercise the authority of the Project Manager in his or her absence.

14.2 The Parties may change their respective Project Managers. Such change shall be accomplished by notifying the other Parties, in writing, within five (5) days of the change and prior to the new Project Manager exercising his or her delegated authority.

14.3 The Parties' Project Managers shall meet or confer informally as necessary as provided in Section X – CONSULTATION. Although NASA has ultimate responsibility for meeting its respective Deadlines, EPA and the State Project Managers shall endeavor to assist in this effort by scheduling meetings to review documents and reports, overseeing the performance of environmental monitoring at the Site, reviewing RI/FS or RD/RA progress, and attempting to resolve disputes informally. At least seven (7) days prior to each scheduled ninety (90) day meeting, NASA will provide to EPA and the State Project Managers a draft agenda and summary of the status of the Work.

14.3.1 These status reports shall include, when applicable:

14.3.1.1 Identification of all data received and not previously provided by NASA during the reporting period consistent with the limitations of Subsection 32.1;

14.3.1.2 All activities completed pursuant to this Agreement since the last Project Manager meeting as well as such actions and plans that are scheduled for the upcoming ninety (90) days; and

14.3.1.3 A description of any delays, the reasons for such delays, anticipated delays, concerns over possible timetable implementation or problems that arise in the execution of a Work Plan during the quarter and any steps that were or will be taken to alleviate the delays or problems.

14.3.2 The minutes of each Project Manager meeting will be prepared by NASA Ames and will be sent to all Project Managers within twenty-one (21) days after the meeting. Any documents requested during the meeting will be provided in a timely manner, except for those documents for which express notification is required.

14.4 Necessary and appropriate adjustments to a Deadline, Target Date or Milestone may be proposed by any Party. The Party that requested the modification shall prepare a written memorandum detailing the modification and the reasons therefore and shall provide a transmittal in a timely manner prior to the Deadline, Target Date or Milestone to the other Parties for signature and return.

14.5 A Project Manager may also recommend and request minor field modifications to the Work performed pursuant to this Agreement, or in techniques, procedures or designs used in carrying out this Agreement. The minor field modifications proposed under this Part must be approved orally by all the Parties' Project Managers to be effective. No such Work modifications can be so implemented if an increase in contract cost will result without the authorization of a NASA Ames Contracting Officer. If agreement cannot be reached on the proposed additional work or modification to Work, dispute resolution as set forth in Section XX – DISPUTE RESOLUTION, shall be invoked by NASA, by submitting a written statement to the other Parties in accordance with Section XX – DISPUTE RESOLUTION. If all Parties agree

to the modification, within five (5) business days following a modification made pursuant to this Section, the Project Manager who requested the modification shall prepare a written transmittal detailing the modification and the reasons therefore and shall provide the transmittal to the Project Managers of the other Parties for signature and return.

14.6 Modifications of Work not provided for in Subsections 14.4 and 14.5 of this Section must be approved orally by all the Parties' Project Managers to be effective. No such Work modifications can be so implemented if an increase in contract cost will result without the authorization of NASA Contracting Officer. If agreement cannot be reached on the proposed modification to Work, dispute resolution as set forth in Section XX – DISPUTE RESOLUTION, shall be used. If the Parties agree to the modification, within five (5) business days following a modification made pursuant to this Section, the Project Manager who requested the modification shall prepare a transmittal detailing the modification and the reasons therefore and shall provide the transmittal to the Project Managers of the other Parties for signature and return.

14.7 Each Party's Project Manager shall be responsible for ensuring that all communications received from the other Project Managers are appropriately disseminated to and processed by the Party that each represents.

14.8 The Parties shall transmit Primary and Secondary Documents and all notices required herein by next day mail, hand delivery, electronic transmittal or certified letter to the persons specified in Subsection 14.9 below by the Deadline established under Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN. Time limitations shall commence upon receipt. NASA shall provide to EPA a maximum of two (2) hard-copies and to the State a maximum of one (1) copy of each Draft and Draft Final Primary and Secondary Document, in addition to a CD-ROM disk version of each Document for all Parties.

14.9 Notice to the individual Parties shall be provided under this Agreement to the following addresses:

14.9.1 For NASA:

NASA Ames Research Center
ATTN: Restoration Project Manager (RPM)
MS 204-115
Moffett Field, CA 94035

14.9.2 For EPA:

U. S. Environmental Protection Agency Region 9
Attn: Moffett Field Project Manager
75 Hawthorne Street (SFD-8-3)
San Francisco, CA 94105

14.9.3 For the State:

San Francisco Bay Regional Water Quality Control Board
Attn: Moffett Field Project Manager
1515 Clay Street, 14th Floor
Oakland, CA 94612

14.10 Nothing in this Section shall be construed to interfere with or alter the internal organization or procedures of a Party, including, without limitation, signature authority.

14.11 NASA Project Manager shall represent NASA with regard to the day-to-day field activities at the Site. NASA Project Manager or other designated representative shall be physically present at the Site or available to observe Work during implementation of all the Work performed at the Site pursuant to this Agreement. The absence of EPA or the State Project Managers from the Site shall not be cause for Work stoppage or delay, unless the Project Managers agree otherwise in writing.

14.12 The authority of the Project Managers shall include, but not be limited to:

14.12.1 Taking samples and ensuring that sampling and other field work is performed in accordance with the terms of any final Work Plans, and Quality Assurance / Quality Control (QA/QC) Plan;

14.12.2 Observing, taking photographs, and making such other reports on the progress of the Work as the Project Managers deem appropriate, subject to the limitations set forth in Section XVI – ACCESS hereof;

14.12.3 Reviewing sampling data, records, files, and documents relevant to the Agreement, subject to the limitations set forth in Section XXXI - RECORD PRESERVATION; and

14.12.4 Determining the form and specific content of the Project Manager meetings.

14.13 If any event occurs or has occurred that may delay or prevent the performance of any obligation under this Agreement, whether or not caused by a Force Majeure event, any Party shall notify by telephone the other Parties' Project Managers within three (3) business days of when the Party first became aware that the event might cause a delay. If the Party intends to seek an extension of a Deadline or Schedule because of the event, the procedures of Section XIII – EXTENSIONS, shall apply.

XV. EXEMPTIONS

15.1 The Parties recognize that the President may issue an order, as needed to protect national security interests, regarding response actions at NASA Ames Research Center, pursuant to Section 120(j) of CERCLA, 42 U.S.C. Section 9620(j). Such an order may exempt NASA Ames Research Center or any portion thereof from the requirements of CERCLA for a period of time not to exceed one (1) year after the issuance of that order. This order may be renewed. NASA shall obtain access to and perform all actions required by this Agreement within all areas inside those portions of NASA Ames Research Center, which are not the subject of or subject to any such order issued by the President.

15.2 The State reserves any statutory right it may have to challenge any order or exemption specified in Subsection 15.1 relieving NASA of its obligation to comply with this Agreement.

XVI. ACCESS

16.1 EPA and the State and/or their representatives shall have the authority to enter NASA Ames Research Center, including the portions of the NAS Moffett Field NPL Site and the MEW Study Area located within NASA Ames Research Center, at all reasonable times for the purposes consistent with provisions of this Agreement. Such authority shall include, but not be limited to: inspecting records, logs, contracts, and other documents relevant to implementation of this Agreement; reviewing and monitoring the progress of NASA and its contractors in carrying out the activities under this Agreement; conducting, with prior notice to NASA Ames, tests that EPA or the State deem necessary; assessing the need for planning additional remedial response actions at the Site; and verifying data or information submitted to EPA and the State. NASA Ames shall honor all reasonable requests for access to the Site made by EPA or the State, upon presentation of credentials showing the bearer's identification and that he/she is an employee or agent of EPA or the State. NASA Project Manager or his/her designee will provide briefing information, coordinate access and escort to restricted or controlled-access areas, arrange for facility passes, and coordinate any other access requests, which arise. NASA shall use its best efforts to ensure that conformance with the requirements of this Subsection 16.1 do not delay access.

16.2 The rights granted in Subsections 16.1 and 16.4 to EPA and the State regarding access shall be subject to regulations and statutes, including NASA Ames security regulations, as may be necessary to protect national security information ("classified information") as defined in Executive Order 13526, as amended, and comply with NASA Ames Research Center's health and safety requirements. Such requirements shall not be applied so as to unreasonably hinder EPA or the State from carrying out their responsibilities and authority pursuant to this Agreement.

16.3 NASA Ames shall provide an escort whenever EPA or the State requires access to restricted areas of NASA Ames Research Center, including restricted portions of NAS Moffett Field NPL Site and the MEW Study Area located within NASA Ames Research Center for purposes consistent with the provisions of this Agreement. EPA and the State shall provide reasonable notice to NASA Project Manager, or his or her designee, to request any necessary escorts for such restricted areas. NASA Ames shall not require an escort to any area of NASA Ames Research Center unless it is a restricted, controlled-access area. Upon request of EPA or the State, NASA Ames shall promptly provide a written list of current restricted or controlled-access areas.

16.4 EPA and the State shall have the right to enter all areas of the Site that are entered by contractors performing Work under this Agreement.

16.5 Upon a denial of any aspect of access, NASA shall provide an immediate explanation of the reason for the denial, including reference to the applicable regulations, and upon request, a copy of such regulations. Within forty-eight (48) hours, NASA shall provide a written

explanation for the denial. To the extent possible, NASA shall expeditiously provide a recommendation for accommodating the requested access in an alternate manner.

16.6 NASA shall ensure that all response measures, ground water rehabilitation measures and remedial actions of any kind that are undertaken pursuant to this Agreement on any areas that: a) are presently owned by the United States and which are occupied by NASA or leased by NASA to any other entity; or b) are in any manner under the control of NASA or any lessees or agents of NASA, shall not be impeded or impaired in any manner by any transfer of title or change in occupancy or any other change in circumstances of such areas.

16.7 NASA shall ensure that any agreements with other entities shall provide for the continued right of entry for all Parties for the performance of such response activities. In accordance with applicable law, any agreement shall provide that no conveyance of title, easement or other interest in the property shall be consummated without the continued right of entry.

16.8 To the extent the activities pursuant to this Agreement must be carried out on non-NASA property, NASA shall use its best efforts to obtain access agreements from the owners that shall provide reasonable access for the EPA, the State, and their representatives. In the event that NASA is unable to obtain such access agreements, NASA shall notify other Parties within five (5) days after it has determined that it is unable to obtain access agreements. NASA shall use its 104(e) access authority and request assistance from the United States Department of Justice to obtain access. NASA may also request the assistance of the State in obtaining such access.

16.9 Nothing herein shall be construed as limiting EPA's or the State's statutory authority for access or information gathering.

XVII. PERMITS

17.1 NASA shall be responsible for obtaining all Federal, State and local permits, which are necessary for the performance of all Work under this Agreement.

17.2 The Parties recognize that under Sections 121(d) and 121(e)(1) of CERCLA, 42 U.S.C. Sections 9621(d) and 9621(e)(1), and the NCP, portions of the response actions called for by this Agreement and conducted entirely onsite, where such response actions are selected and carried out in accordance with CERCLA, are exempt from the procedural requirement to obtain Federal, State, or local permits. All activities must, however, comply with all the applicable or relevant and appropriate Federal and State standards, requirements, criteria, or limitations, which would have been included in any such permit.

17.3 When NASA proposes a response action, other than an emergency removal action, to be conducted entirely onsite, which in the absence of Section 121(e)(1) of CERCLA, 42 U.S.C. Section 9621(e)(1), and the NCP would require a Federal, State or local permit, NASA shall include in its Draft ROD or removal memorandum:

17.3.1 Identification of each permit that would otherwise be required;

17.3.2 Identification of the standards, requirements, criteria, or limitations that would need to be met to obtain each such permit; and

17.3.3 An explanation of how the response action proposed will meet the standards, requirements, criteria or limitations identified immediately above.

17.4 Subsection 17.2 above is not intended to relieve NASA from the requirement(s) of obtaining a permit whenever it proposes a response action involving the shipment or movement of a hazardous substance, pollutant, or contaminant or hazardous waste off the Site or in any other circumstances where the exemption provided for at Section 121(e)(1) of CERCLA, 42 U.S.C. Section 9621(e)(1), does not apply.

17.5 NASA shall notify EPA and the State in writing of any permits required for any off-site activities it plans to undertake as soon as it becomes aware of the requirement. NASA shall apply for all such permits and provide EPA and the State with copies of all such permits, applications, and other documents related to the permit process and final permits.

17.6 NASA agrees to notify EPA and the State of its intention to propose modifications to this Agreement to obtain conformance with the permit, or lack thereof if a permit or other authorization that is necessary for implementation of this Agreement is not issued, or is issued or renewed in a manner that is materially inconsistent with the requirements of this Agreement. Notification by NASA of its intent to propose modifications shall be submitted within sixty (60) days of receipt by NASA of notification that: (1) a permit will not be issued; (2) a permit has been issued or reissued; or (3) a final determination with respect to any appeal related to the issuance of a permit has been entered. Within sixty (60) days from the date it submits its notice of intention to propose modifications to this Agreement, NASA shall submit to EPA and the State its proposed modifications to this Agreement with an explanation of its reasons in support thereof.

17.7 EPA and the State shall review NASA's proposed modifications to this Agreement in accordance with Section XXXVII – AMENDMENT OF AGREEMENT. If NASA submits proposed modifications prior to a final determination of any appeal taken on a permit needed to implement this Agreement, EPA and the State may elect to delay review of the proposed modifications until after such final determination is entered.

17.8 During any appeal by any Party of any permit required to implement this Agreement or during review of any proposed modification(s) to the permit, NASA shall continue to implement those portions of this Agreement, which can be reasonably implemented independent of final resolution of the permit issue(s) under appeal. However, as to Work that cannot be so implemented, any corresponding Deadline, timetable, or Schedule shall be subject to Section XIII – EXTENSIONS.

17.9 Nothing in this Agreement shall be construed to affect NASA's obligation to comply with any RCRA permit(s) that the Facility may already have or will be issued in the future.

XVIII. REMOVAL AND EMERGENCY ACTIONS

18.1 NASA shall provide EPA and the State with timely notice of any proposed removal action.

18.2 Nothing in this Agreement shall alter NASA's, the State's, or EPA's authority with respect to removal actions conducted pursuant to Section 104 of CERCLA, 42 U.S.C. Section 9604.

18.3 If during the course of performing the activities required under this Agreement, any Party identifies an actual or a substantial threat of a release of any hazardous substance, pollutant, or contaminant at or from the Site, that Party may propose that NASA undertake removal actions to abate the danger and threat that may be posed by such actual or threatened release. All removal actions conducted by NASA on NASA Ames Research Center shall be conducted in a manner consistent with this Agreement, CERCLA, Executive Order 12580, including provisions for timely notification and consultation with EPA and the appropriate State and local officials, and the NCP and shall, to the extent practicable, contribute to the efficient performance of any long-term remedial action with respect to the release(s) or threatened release(s) concerned. Prior to determining to undertake such actions, NASA shall submit to EPA and the State:

18.3.1 Documentation of the actual or threatened release at or from the Site;

18.3.2 Documentation that the actions proposed will abate the danger and threat that may be posed by release of hazardous substances, pollutants, or contaminants at or from the Site;

18.3.3 Documentation that the action is consistent with the NCP, applicable State regulations, and, to the extent practicable, contributes to the efficient performance of any long-term remedial action with respect to the release or threatened release concerned;

18.3.4 Prepare an Engineering Evaluation/Cost Analysis (EE/CA), or its equivalent for a removal action whenever a planning period of at least six months exists before on-site activities must be initiated (Non-Time Critical Removal Action (NTCRA)). The EE/CA shall contain an analysis of removal alternatives for a site. The screening of alternatives shall be based on criteria as provided in CERCLA and the NCP, such as cost, feasibility, and effectiveness.

18.3.5 A NTCRA Plan and Target Date for the proposed action; and

18.3.6 EPA and the State shall expedite all reviews of these proposals to the maximum extent practicable.

18.4 In the case of an emergency removal action, NASA shall provide EPA and the State with oral notice as soon as possible. A written notice shall be transmitted to all the Parties within forty-eight (48) hours after NASA proposes that an emergency removal be conducted, which will include any deviations from the oral notice. Based on this information or any other information

regarding the conditions at the Site, EPA may determine that NASA should perform an emergency response. Within thirty (30) calendar days of receipt of EPA's determination, NASA shall submit to EPA for approval an action memorandum to carry out the emergency response. Upon receipt of EPA's approval of the action memorandum, NASA shall implement the EPA-approved action memorandum in accordance with the terms and conditions set forth therein. If so, NASA will perform the emergency removal in accordance with EPA instruction.

18.5 If an imminent health hazard or an activity conducted pursuant to this Agreement that is creating a danger to the public health or welfare or the environment is discovered by any Party, the discovering Party will notify the other Parties and NASA will take immediate action to promptly notify all appropriate State and local agencies and potentially affected persons.

18.6 All activities pursuant to this Agreement will be performed in accordance with the Health and Safety Plan and will be conducted so as to minimize the threat to the surrounding public.

XIX. PERIODIC REVIEW

19.1 Consistent with Section 121(c) of CERCLA, 42 U.S.C. Section 9621(c), Section 300.430(f)(4)(ii) of the NCP, and in accordance with this Agreement, if the selected remedial action results in any hazardous substance, pollutants or contaminants remaining at the Site at levels above that allowing for unlimited use and unrestricted exposure, the Parties shall review the remedial action for each Operable Unit at least every five (5) years after the initiation of the remedial action to assure that human health and the environment are being protected by the remedial action being implemented. As part of this review, NASA shall report the findings of the review to EPA and the State upon its completion. This report, the Periodic Review Assessment Report, shall be submitted to EPA and the State for review and comment. Target Dates shall be established for the completion and transmission of the Periodic Review Assessment Report pursuant to Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN.

19.2 If upon such review it is the conclusion of any of the Parties that additional action or modification of remedial action is appropriate at the Site in accordance with Sections 104 or 106 of CERCLA, 42 U.S.C. Sections 9604 or 9606, NASA shall implement such additional or modified action in accordance with Section IX – WORK TO BE PERFORMED.

19.3 Any dispute by the Parties regarding the need for or the scope of additional action or modification to a remedial action shall be resolved under Section XX – DISPUTE RESOLUTION, enforceable hereunder.

19.4 Any additional action or modification agreed upon pursuant to this Section shall be made a part of this Agreement.

19.5 EPA reserves the right to exercise any available authority to seek the performance of additional work that arises from a Periodic Review, pursuant to applicable law.

19.6 The State reserves the right to exercise any authority under State law to seek the performance of additional Work when it is determined that such additional Work is necessary.

19.7 The assessment and selection of any additional response actions determined necessary as a result of a Periodic Review shall be in accordance with Subsection 9.7. Except for emergency response actions, which shall be governed by Section XVIII – REMOVAL AND EMERGENCY ACTIONS, such response actions shall be implemented as a supplemental response action in accordance with Subsections 9.7.4 and 9.7.5.

XX. DISPUTE RESOLUTION

20.1 Except as specifically set forth elsewhere in this Agreement, if a dispute arises under this Agreement, the procedures of this Section shall apply. All Parties to this Agreement shall make reasonable efforts to resolve disputes informally at the Project Manager or immediate supervisor level. If resolution cannot be achieved informally, the procedures of this Section shall be implemented to resolve a dispute.

20.2 Within thirty (30) days after: (1) issuance of a draft final Primary Document pursuant to Section X – CONSULTATION; or (2) any action that leads to or generates a dispute, the disputing Party shall submit to the Dispute Resolution Committee (DRC) a written statement of dispute setting forth the nature of the dispute, the Work affected by the dispute, the disputing Party's position with respect to the dispute and the technical, legal or factual information the disputing Party is relying upon to support its position.

20.3 Prior to any Party's issuance of a written statement of dispute, the disputing Party shall engage the other Parties in informal dispute resolution among the Project Managers and/or their immediate supervisors. During this informal dispute resolution period, the Parties shall meet as many times as are necessary to discuss and attempt resolution of the dispute.

20.4 The DRC will serve as a forum for resolution of disputes for which agreement has not been reached through informal dispute resolution. The Parties shall each designate one individual and an alternate to serve on the DRC. The individuals designated to serve on the DRC shall be employed at the policy level (Senior Executive Service (SES) or equivalent) or be delegated the authority to participate on the DRC for the purposes of dispute resolution under this Agreement. EPA's representative on the DRC is the Superfund Division Director of EPA Region IX. The State representative on the DRC is the Division Chief of Groundwater Protection. NASA's designated member is the NASA Ames' Director of Center Operations. Written notice of any delegation of authority from the Party's designated representative on the DRC shall be provided to the all other Parties pursuant to the procedures of Section XIV – PROJECT MANAGERS.

20.5 Following elevation of a dispute to the DRC, the DRC shall have twenty-one (21) days to resolve unanimously the dispute and issue a written decision signed by all Parties. If the DRC is unable to resolve unanimously the dispute within this twenty-one (21) day period, the written

statement of dispute shall be forwarded to the Senior Executive Committee (SEC) for resolution within seven (7) days after the close of the 21-day resolution process.

20.6 The SEC will serve as the forum for resolution of disputes for which agreement has not been reached by the DRC. EPA's representative on the SEC is the Regional Administrator of EPA Region IX. The State's representative on the SEC is the Executive Officer of the San Francisco Bay Regional Water Quality Control Board. NASA's representative on the SEC is the Assistant Administrator of Strategic Infrastructure. The SEC members shall, as appropriate, confer, meet and exert their best efforts to resolve the dispute and issue a written decision signed by all Parties. If unanimous resolution of the dispute is not reached within twenty-one (21) days, the EPA Regional Administrator shall issue a written position on the dispute. The NASA Administrator and the San Francisco Bay Regional Water Quality Control Board Executive Officer may, within fourteen (14) days of the Regional Administrator's issuance of EPA's position, issue a written notice elevating the dispute to the Administrator of EPA for resolution in accordance with all applicable laws and procedures. In the event that NASA or the San Francisco Bay Regional Water Quality Control Board Executive Officer elect not to elevate the dispute to the Administrator within the designated fourteen (14) day escalation period, the party shall be deemed to have agreed with Regional Administrator's written position with respect to the dispute.

20.7 Upon elevation of a dispute to the Administrator of EPA pursuant to Subsection 20.6, the Administrator will review and resolve the dispute within twenty-one (21) days. Upon request, and prior to resolving the dispute, the EPA Administrator shall meet and confer with the NASA Administrator and the Executive Officer of the San Francisco Bay Regional Water Quality Control Board to discuss the issue(s) under dispute. Upon resolution, the Administrator shall provide the other Parties with a written final decision setting forth resolution of the dispute. The duties of the Administrator set forth in this Section shall not be delegated.

20.8 The pendency of any dispute under this Section shall not affect NASA's responsibility for timely performance of the Work required by this Agreement, except that the time period for completion of Work affected by such dispute shall be extended for a period of time usually not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the Work required by this Agreement that are not affected by the dispute shall continue to be completed in accordance with the applicable Schedule.

20.9 When dispute resolution is in progress, Work affected by the dispute will immediately be discontinued if the Superfund Division Director for EPA Region IX requests, in writing, that Work related to the dispute be stopped because, in EPA's opinion, such Work is inadequate or defective, and such inadequacy or defect is likely to yield an adverse effect on human health or the environment, or is likely to have a substantial adverse effect on the remedy selection or implementation process. The State may request the EPA Division Director to order Work stopped for the reasons set out above. To the extent possible, the Party seeking a Work stoppage shall consult with the other Parties prior to initiating a Work stoppage request. After stoppage of Work, if a Party believes that the Work stoppage is inappropriate or may have potential significant adverse impacts, the Party may meet with the Party ordering a Work stoppage to discuss the Work stoppage. Following this meeting, and further consideration of the issues, the

EPA Division Director will issue, in writing, a final decision with respect to the Work stoppage. The final written decision of the EPA Division Director may immediately be subjected to formal dispute resolution. Such dispute may be brought directly to either the DRC or the SEC, at the discretion of the Party requesting dispute resolution.

20.10 Within twenty-one (21) days of resolution of a dispute pursuant to the procedures specified in this Section, NASA shall incorporate the resolution and final determination into the appropriate plan, Schedule or procedures and proceed to implement this Agreement according to the amended plan, Schedule or procedures.

20.11 Resolution of a dispute pursuant to this Section constitutes a final resolution of any dispute arising under this Agreement. All Parties shall abide by all terms and conditions of any final resolution of dispute obtained pursuant to this Section of this Agreement.

20.12 The State reserves the right to maintain an action under CERCLA Section 121(f)(3)(B), 42 U.S.C. Section 9621(f)(3)(B), to challenge the selection of a remedial action that does not attain a legally applicable or relevant and appropriate standard, requirement, criteria or limitation.

XXI. STIPULATED PENALTIES

21.1 In the event that NASA fails to submit a Primary Document, as listed in Section X – CONSULTATION, to EPA and the State pursuant to the appropriate timetable or Deadlines in accordance with the requirements of this Agreement, or fails to comply with a term or condition of this Agreement that relates to an interim or final remedial action, EPA may assess a stipulated penalty against NASA. The State may propose to EPA that penalties be assessed. A stipulated penalty may be assessed in an amount not to exceed $5,000 for the first week (or part thereof), and $10,000 for each additional week (or part thereof) for which a failure set forth in this Subsection occurs. The State and EPA agree that all stipulated penalties shall be shared equally.

21.2 Upon determining that NASA has failed in a manner set forth in Subsection 21.1, EPA or the State shall so notify NASA in writing. If the failure in question is not already subject to dispute resolution at the time such notice is received, NASA shall have fifteen (15) days after receipt of the notice to invoke dispute resolution on the question of whether the failure did in fact occur. NASA shall not be liable for the stipulated penalty assessed by EPA if the failure is determined, through the dispute resolution process, not to have occurred. No assessment of a stipulated penalty shall be final until the conclusion of dispute resolution procedures related to the assessment of the stipulated penalty.

21.3 In the event that stipulated penalties become payable by NASA under this Agreement, NASA will seek Congressional approval and authorization to pay such stipulated penalties in equal amounts to the Federal Hazardous Substances Superfund and to the State Fund. Stipulated penalties assessed pursuant to this Section shall be payable only in the manner and to the extent expressly provided for in Acts authorizing funds for, and appropriations to, NASA. Any requirement for the payment of stipulated penalties under this Agreement shall be subject to the

availability of funds, and no provision herein shall be interpreted to require the obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341.

21.4 In no event shall this Section give rise to a stipulated penalty in excess of the amount set forth in CERCLA Section 109.

21.5 This Section shall not affect NASA's ability to obtain an extension of a timetable, Deadline or Schedule pursuant to Section XIII – EXTENSIONS.

21.6 Nothing in this Agreement shall be construed to render any officer or employee of NASA personally liable for the payment of any stipulated penalty assessed pursuant to this Section.

XXII. FORCE MAJEURE

22.1 A Force Majeure shall mean any event arising from causes beyond the control of the Party that causes a delay in or prevents the performance of any obligation under this Agreement, including but not limited to:

22.1.1 Acts of God;

22.1.2 Fire;

22.1.3 War;

22.1.4 Insurrection;

22.1.5 Civil disturbance;

22.1.6 Explosion;

22.1.7 Unanticipated breakage or accident to machinery, equipment or lines of pipe despite reasonably diligent maintenance;

22.1.8 Adverse weather conditions that could not be reasonably anticipated;

22.1.9 Unusual delay in transportation due to circumstances beyond the control of NASA;

22.1.10 Restraint by court order or order of public authority;

22.1.11 Inability to obtain, at reasonable cost and after exercise of reasonable diligence, any necessary authorizations, approvals, permits or licenses due to action or inaction of any governmental agency or authority other than NASA~~;~~;

22.1.12 Delays caused by compliance with applicable statutes or regulations governing contracting, procurement or acquisition procedures, despite the exercise of reasonable diligence; and

22.1.13 Insufficient availability of appropriated funds, if NASA shall have made a timely request for such funds as a part of the budgetary process as set forth in Section XXVII – FUNDING.

22.2 A Force Majeure shall also include any strike or other labor dispute, whether or not within control of the Parties affected thereby. Force Majeure shall not include increased costs or expenses of response actions, whether or not anticipated at the time such response actions were initiated.

22.3 NASA shall exercise its best efforts to avoid or minimize any delay and the effects of such delay.

XXIII. ENFORCEABILITY

23.1 The Parties agree that:

23.1.1 Upon the Effective Date of this Agreement, any standard, regulation, condition, requirement or order that has become effective under CERCLA and is incorporated into this Agreement is enforceable by any person pursuant to CERCLA Section 310, and any violation of such standard, regulation, condition, requirement or order will be subject to civil penalties under CERCLA Sections 310(c) and 109;

23.1.2 All timetables and Deadlines associated with the RI/FS shall be enforceable by any person pursuant to CERCLA Section 310, and any violation of such timetables or Deadlines will be subject to civil penalties under CERCLA Sections 310(c) and 109;

23.1.3 All terms and conditions of this Agreement which relate to interim or final remedial actions, including corresponding timetables, Deadlines or Schedules, and all Work associated with the interim or final remedial actions, shall be enforceable by any person pursuant to CERCLA Section 310(c), and any violation of such terms or conditions will be subject to civil penalties under CERCLA Sections 310(c) and 109; and

23.1.4 Any final resolution of a dispute pursuant to Section XX – DISPUTE RESOLUTION that establishes a term, condition, timetable, Deadline or Schedule shall be enforceable by any person pursuant to CERCLA Section 310(c), and any violation of such term, condition, timetable, Deadline or Schedule will be subject to civil penalties under CERCLA Sections 310(c) and 109.

23.2 Nothing in this Agreement shall be construed as authorizing any person to seek judicial review of any action or Work where review is barred by any provision of CERCLA, including CERCLA Section 113(h).

23.3 Nothing in this Agreement shall be construed as a restriction or waiver of any rights EPA or the State may have under CERCLA, including but not limited to any rights under Sections 113, 120, 121 and 310, 42 U.S.C. Sections 9613, 9620, 9621 and 9659, or any rights, or defenses, including sovereign immunity, the State may have under Federal or State law. NASA does not waive any rights it may have under CERCLA Section 120, SARA Section 211 and Executive Order 12580.

23.4 The Parties agree to exhaust their rights under Section XX – DISPUTE RESOLUTION, prior to exercising any rights to judicial review that they may have.

23.5 The Parties agree that all Parties shall have the right to enforce the terms of this Agreement.

XXIV. OTHER CLAIMS

24.1 Subject to Section VIII – STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION, nothing in this Agreement shall restrict the Parties from taking any action under CERCLA, RCRA, State law, or other environmental statutes for any matter not specifically part of the Work performed under CERCLA, which is the subject matter of this Agreement.

24.2 Nothing in this Agreement shall constitute or be construed as a bar, or a discharge, or a release, from any claim, cause of action or demand in law or equity by or against any person, firm, partnership, or corporation not a signatory to this Agreement for any liability it may have arising out of, or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous waste, pollutants, or contaminants found at, taken to, or taken from the Site.

24.3 This Agreement does not constitute any decision or pre-authorization by EPA of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. Section 9611(a)(2) for any person, agent, contractor or consultant acting for NASA.

24.4 EPA and the State shall not be held as a party to any contract entered into by NASA to implement the requirements of this Agreement.

24.5 NASA shall notify the appropriate Federal and State Natural Resource Trustees of potential damages to natural resources resulting from releases or threatened releases under investigation, as required by Section 104(b)(2) of CERCLA, 42 U.S.C. Section 9604(b)(2), and Section 2(e)(2) of Executive Order 12580. Except as provided herein, NASA is not released from any liability that it may have pursuant to any provisions of State and Federal law, including any claim for damages for destruction of, or loss of, natural resources.

24.6 This Agreement does not bar any claim for:

24.6.1 Natural resources damage assessments, or for damage to natural resources; or

24.6.2 Liability for disposal of any hazardous substances or waste material taken from the Site.

XXV. RESERVATION OF RIGHTS

25.1 Notwithstanding anything in this Agreement, EPA and the State may initiate any administrative, legal or equitable remedies available to them, including requiring additional response actions by NASA in the event that: (a) conditions previously unknown or undetected by EPA or the State arise or are discovered at the Site; or (b) EPA or the State receives additional information not previously available concerning the premises that they employed in reaching this Agreement; or (c) the implementation of the requirements of this Agreement are no longer protective of public health and the environment; or (d) EPA or the State discovers the presence of conditions on the Site that may constitute an imminent and substantial danger to the public health, welfare, or the environment; or (e) NASA fails to meet any of its obligations under this Agreement; or (f) NASA fails or refuses to comply with any applicable requirements of CERCLA or RCRA or State laws or regulations; or (g) NASA, its officers, employees, contractors, or agents falsify information, reports, or data, or make a false representation or statement in a record, report, or document relating to the release of hazardous materials at the Site, and this information affects the determination of whether a remedial action is protective of human health and the environment. For purposes of this Subsection, conditions at the Site and information known to EPA and the State shall include only those conditions and information known as of the date of the relevant response action decision document.

25.2 The Parties agree to exhaust their rights under Section XX – DISPUTE RESOLUTION, prior to exercising any rights to judicial review that they may have.

25.3 The Parties, after exhausting their remedies under this Agreement, reserve any and all rights, including the right to raise or assert any defense they may have under CERCLA, or any other law, where those rights are not inconsistent with the provisions of this Agreement, CERCLA, or the NCP. This Section does not create any right that EPA and the State do not already have under applicable law.

XXVI. PROPERTY TRANSFER

26.1 No change or transfer of any interest in the Facility or any part thereof shall in any way alter the status or responsibility of the Parties under this Agreement. NASA agrees to give EPA and the State sixty (60) days notice when NASA reports as excess to GSA any portion of the real property affected by this Agreement pursuant to the Federal Property and Administrative Services Act of 1949, as amended, and also sixty (60) days prior to the sale or transfer by the United States of any title, easement, or other interest in the real property affected by this Agreement. NASA agrees to comply with Section 120(h) of CERCLA, 42 U.S.C. Section 9620(h), including the Community Environmental Response Facilitation Act (CERFA), and any additional amendments thereof, and with 40 C.F.R. Part 373, if applicable.

26.2 In accordance with Section 120(h) of CERCLA, 42 U.S.C. Section 9620(h), and 40 C.F.R. Part 373, NASA shall include notice of this Agreement in any lease or other agreement that permits any non-NAS Moffett Field activity to function as an operator on any portion of NASA ARC.

XXVII. FUNDING

27.1 It is the expectation of the Parties to this Agreement that all obligations of NASA arising under this Agreement will be fully funded. NASA agrees to seek sufficient funding through its budgetary process to fulfill its obligations under this Agreement.

27.2 Any requirement for the payment or obligation of funds, including stipulated penalties, by NASA established by the terms of this Agreement shall be subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341. In cases where payment or obligation of funds would constitute a violation of the Anti-Deficiency Act, the dates established requiring the payment or obligation of such funds shall be appropriately adjusted.

27.3 If appropriated funds are not available to fulfill NASA's obligations under this Agreement, EPA and the State reserve the right to initiate an action against any other person, or to take any response action, which would be appropriate absent this Agreement.

27.4 Funds authorized and appropriated annually by Congress will be the source of funds for activities required by this Agreement consistent with the current NASA Authorization Act and other NASA funding authority. However, should appropriations be inadequate in any year to meet NASA's total implementation requirements under this Agreement, NASA Ames will, after consulting with the other Parties and discussing the inadequacy with the members of the public interested in the action in accordance with Section XII – BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN, prioritize and allocate that year's appropriation.

XXVIII. REIMBURSEMENT OF STATE SERVICES

28.1 NASA Ames and the State agree to use the existing reimbursement process for the reimbursement of services provided in direct support of NASA Ames' environmental restoration activities at NASA Ames Research Center pursuant to this Agreement. This process involves submission by the State of an annual letter to NASA Ames indicating the State's estimated scope of services and the fee structure followed by periodic invoices, payable upon receipt.

XXIX. RECOVERY OF EPA EXPENSES

29.1 The Parties agree to amend this Agreement at a later date in accordance with any subsequent national resolution of the issue of EPA cost reimbursement for CERCLA response costs incurred by EPA. Pending such resolution, EPA reserves the rights it may have with respect to cost reimbursement.

XXX. QUALITY ASSURANCE

30.1 NASA shall use quality assurance, quality control, and chain of custody procedures throughout all field investigation, sample collection and laboratory analysis activities. A Quality Assurance/Quality Control (QA/QC) Project Plan shall be submitted as a component of each SI, RI, FS, RD, and RA Work Plan(s), as appropriate. These work plans will be reviewed as Primary Documents pursuant to Section X – CONSULTATION. QA/QC Plans shall be prepared in accordance with applicable EPA Guidance, including the Uniform Federal Policy for Quality Assurance Project Plans (March 2005).

30.2 In order to provide for quality assurance and maintain quality control regarding all fieldwork and samples collected pursuant to this Agreement, NASA shall include in each QA/QC Plan submitted to EPA and the State all protocols to be used for sampling and analysis. NASA shall also ensure that any laboratory used for analysis is a participant in a QA/QC program that is consistent with EPA Guidance.

30.3 NASA shall ensure that lab audits are conducted as appropriate and are made available to EPA and the State upon request. NASA shall ensure that EPA and/or the State and/or their authorized representatives shall have access to all laboratories performing analyses on behalf of NASA pursuant to this Agreement.

XXXI. RECORD PRESERVATION

31.1 Despite any document retention policy to the contrary, EPA and NASA shall preserve, during the pendency of this Agreement and for a minimum of ten (10) years after its termination or for a minimum of ten (10) years after implementation of any additional action taken pursuant to Section XIX – PERIODIC REVIEW, all records and documents in their possession that relate

to actions taken pursuant to this Agreement. The State shall preserve all records and documents in its possession that relate to actions taken pursuant to this Agreement in accordance with State law and policy. After the ten (10) year period, or for the State at the expiration of its document retention period, each Party shall notify the other Parties at least forty-five (45) days prior to the proposed destruction or disposal of any such documents or records. Upon the request by any Party, the requested Party shall make available such records or copies of any such records unless withholding is authorized and determined appropriate by law. The Party withholding such records shall identify any documents withheld and the legal basis for withholding such records. No records withheld shall be destroyed until forty-five (45) days after the final decision by the highest court or administrative body requested to review the matter.

31.2 All such records and documents shall be preserved for a period of ten (10) years following the termination of any judicial action regarding the Work performed under CERCLA, which is the subject of this Agreement.

XXXII. SAMPLING AND DATA/DOCUMENT AVAILABILITY

32.1 Each Party shall make available to the other Parties all the results of sampling, tests, or other data generated through the implementation of this Agreement as needed in a timely manner.

32.2 At the request of any Party, a Party shall allow the other Parties or their authorized representatives to observe fieldwork and to take split or duplicate samples of any samples collected pursuant to this Agreement. Each Party shall notify the other Parties by telephone not less than fourteen (14) days in advance of any scheduled sample collection activity unless otherwise agreed upon by the Parties. The Party shall provide written confirmation within three (3) days of the telephone notification.

32.3 If preliminary analysis indicates that an imminent or substantial endangerment to human health or the environment may exist, all other Project Managers shall be immediately notified.

XXXIII. PROTECTED INFORMATION

33.1 NASA shall not withhold any physical, sampling, monitoring, or analytical data.

33.2 National Security Information:

33.2.1 Any dispute concerning EPA and/or the State access to national security information ("classified information"), as defined in Executive Order 13526, as amended, shall be resolved in accordance with Executive Order 13526, as amended, and other applicable law, including the opportunity to demonstrate that EPA and/or the State representatives have proper clearances and a need to know, appeal to the Information Security Oversight Office, and final appeal to the National Security Council.

33.2.2 Upon receipt from EPA and/or the State of a request to meet with the classifying officer regarding access to classified information, NASA shall, within ten (10) days of such request, notify the requesting Party of the identity of the classifying officer and the level of classification of the information sought. If the document was classified by NASA, the classifying officer and the representative of the requesting Party shall meet within twenty-one (21) days following receipt of the request. The purpose of the meeting shall be to seek a means to accommodate the requesting Party's request for access to information without compromising national security or violating security regulations. If no resolution is reached at the meeting, NASA shall notify the requesting Party of the classifying officer's decision within fourteen (14) days following the meeting. Failure to render a timely decision shall be construed as a denial. Failure to respond is subject to dispute resolution under this Agreement.

33.2.3 Nothing in this Subsection 33.2 is intended to, or should be construed as, superseding any law, regulation, or promulgated NASA directive regarding access to, release of, or protection of national security information.

XXXIV. COMMUNITY RELATIONS

34.1 NASA Ames shall develop and implement a Community Involvement Plan as part of the NASA ARC SMP. This plan responds to the need for an interactive relationship with all interested community elements, both on and off NASA Ames Research Center, regarding environmental response activities conducted pursuant to this Agreement by NASA. Any revision or amendment to the Community Involvement Plan shall be submitted to EPA and the State for review and comment.

34.2 Except in case of an emergency requiring the release of necessary information, and except in the case of an enforcement action, any Party issuing a press release with reference to any of the Work required by this Agreement shall use its best efforts to advise the other Parties of such press release and the contents thereof upon issuance of such release.

34.3 The Parties agree to comply with all relevant EPA policy and Guidance on community relations programs and the public participation requirements of CERCLA, the NCP and other applicable laws and regulations.

34.4 The Parties agree that Work conducted under this Agreement and any subsequent proposed remedial action alternatives and subsequent plans for remedial action at the Site arising out of this Agreement shall comply with all the Administrative Record and public participation requirements of CERCLA, including Sections 113(k) and 117, 42 U.S.C. Sections 9613(k) and 9617, the NCP, and all applicable Guidance developed and provided by EPA. This shall be achieved through implementation of the Community Involvement Plan.

34.5 NASA Ames shall establish and maintain an Administrative Record at or near NASA Ames Research Center, in accordance with CERCLA Section 113(k), 42 U.S.C. § 9613(k), Subpart I of the NCP, and applicable EPA Guidance. The Administrative Record developed by NASA Ames shall be periodically updated and a copy of the Index will be provided to EPA and

the State. NASA Ames will provide to EPA on request any document in the Administrative Record.

34.6 Status updates by NASA Ames at public forums shall be for the purpose of reviewing progress under the Agreement, specifically sharing information on NASA Ames investigation and cleanup activities, and for the following purposes:

34.6.1 To facilitate early and continued flow of information between the community, NASA Ames, and the environmental regulatory agencies in relation to restoration actions taken by NASA;

34.6.2 To provide an opportunity for the public to review and comment on actions and proposed actions; and

34.6.3 To facilitate regulatory and public participation consistent with applicable laws.

34.7 To the extent practicable and as a convenience to the Parties, the meetings of the Project Managers shall continue to be held in conjunction with the Navy's RAB meetings as they have been in the past.

34.8 NASA Ames may, in its discretion, use alternative means for public involvement consistent with Paragraph 34.6 and as identified in the CIP.

XXXV. PUBLIC COMMENT ON THIS AGREEMENT

35.1 Within fifteen (15) days after the execution of this Agreement (the date by which all Parties have signed the Agreement), EPA shall announce the availability of this Agreement to the public for their review and comment. Such public notices shall include information advising the public as to availability and location of the Administrative Record as discussed in Subsection 34.5. EPA shall accept comments from the public for forty-five (45) days after such announcement. Within twenty-one (21) days of completion of the public comment period, EPA shall transmit copies of all comments received within the comment period to the other Parties. Within thirty (30) days after the transmittal, the Parties shall review the comments and shall decide that either:

35.1.1 The Agreement shall be made effective without any modifications; or

35.1.2 The Agreement shall be modified prior to being made effective.

35.2 If the Parties agree that the Agreement shall be made effective without any modifications, and if the Parties agree on the Responsiveness Summary, EPA shall transmit a copy of the signed Agreement to the other Parties and shall notify the other Parties in writing that the Agreement is effective. The Effective Date of the Agreement shall be the date of receipt by NASA of the signed Agreement from EPA.

35.3 If the Parties agree that modifications are needed and agree upon the modifications and amend the Agreement by mutual consent within sixty (60) days after the expiration of the public comment period, EPA and the State, in consultation with NASA, will determine whether the modified Agreement requires additional public notice and comment pursuant to any provision of CERCLA. If EPA and the State determine that no additional notice and comment are required, and the Parties agree on the Responsiveness Summary, EPA shall transmit a copy of the modified Agreement to NASA and the State and shall notify them in writing that the modified Agreement is effective as of the date of the notification. If the Parties amend the Agreement within the sixty (60) days and EPA and the State determine that additional notice and comment are required, such additional notice and comment shall be provided consistent with the provisions stated in Subsection 35.1 above. If the Parties agree, after such additional notice and comment has been provided, that the modified Agreement does not require any further modification and if the Parties agree on the Responsiveness Summary, EPA shall send a copy of the mutually agreed upon modified Agreement to NASA and the State and shall notify them that the modified Agreement is effective. In either case, the Effective Date of the modified Agreement shall be the date of receipt by NASA from EPA of notification that the modified Agreement is effective.

35.4 In the event that the Parties cannot agree on the modifications or on the Responsiveness Summary within thirty (30) days after the EPA's transmittal of the public comments, the Parties agree to negotiate in good faith for an additional fifteen (15) days before invoking dispute resolution. The Parties agree to have at least one meeting during that 15-day period to attempt to reach agreement.

35.5 If, after the times provided in Subsection 35.4, the Parties have not reached agreement on:

35.5.1 Whether modifications to the Agreement are needed; or

35.5.2 What modifications to the Agreement should be made; or

35.5.3 Any language, any provisions, any Deadlines, any Work to be performed or any content of the Agreement or any Appendices to the Agreement; or

35.5.4 Whether additional public notice and comments are required; or

35.5.5 The contents of the responsiveness summary,

then the matters that are in dispute shall be resolved by the dispute resolution procedures of Section XX – DISPUTE RESOLUTION. For the purposes of this Section, the Agreement shall not be effective while the dispute resolution proceedings are underway. After these proceedings are completed, the Final Written Decision shall be provided to the Parties indicating the results of the dispute resolution proceedings. Each Party reserves the right to withdraw from the Agreement by providing written notice to the other Parties within twenty (20) days after receiving from EPA the Final Written Decision of the resolution of the matters in dispute. If the State withdraws, and EPA and NASA agree to proceed, the Agreement shall be effective as to

EPA and NASA. Failure by a Party to provide such a written notice of withdrawal to EPA within this twenty (20) day period shall act as a waiver of the right of that Party to withdraw from the Agreement, and EPA shall thereafter send a copy of the final Agreement to each Party and shall notify each Party that the Agreement is effective. The Effective Date of the Agreement shall be the date of receipt of that letter from EPA to NASA.

35.6 At the start of the public comment period, NASA will transmit copies of this Agreement to the appropriate Federal, State, and local Natural Resource Trustees for review and comment within the time limits set forth in this Section.

35.7 Existing records maintained by NASA Ames that will be included in the Administrative Record such as reports, plans, and Schedules shall be made available by NASA Ames for public review during the public comment period.

XXXVI. EFFECTIVE DATE

This Agreement shall be effective in its entirety among the Parties in accordance with Section XXXV – PUBLIC COMMENT ON THIS AGREEMENT.

XXXVII. AMENDMENT OF AGREEMENT

37.1 Except as provided in Section XIV – PROJECT MANAGERS, this Agreement can be amended or modified solely upon written consent of all the Parties. Such amendments or modifications shall be in writing, and shall become effective on the third business day following the date on which EPA signs the amendments or modifications. The Parties may agree on a different Effective Date. As the last signing Party, EPA will provide notice to each signatory pursuant to Section XIV – PROJECT MANAGERS, of the Effective Date.

37.2 The Party initiating the amendment of this Agreement shall propose in writing the amendment for distribution and signature by the other Parties.

37.3 During the course of activities under this Agreement, the Parties anticipate that statutes, regulations, Guidance, and other rules will change. Those changed statutes, regulations, Guidance, and other rules shall be applied to the activities under this Agreement in the following manner:

37.3.1 Applicable statutes and regulations shall be applied in accordance with the statutory or regulatory language on applicability, and if applied to ongoing activities, shall be applied on the effective date provided. However, the Parties shall, to the extent practicable, apply them in such a way as to avoid as much as possible the need for repeating Work already accomplished;

37.3.2 Applicable policy or Guidance shall be applied as it exists at the time of initiation of the Work in issue; and

37.3.3 Applicable policy or Guidance that is changed after the initiation of the Work in issue or after its completion shall be applied subject to Section XX – DISPUTE RESOLUTION. The Party proposing application of such changed policy or Guidance shall have the burden of proving the appropriateness of its application. In any case, the Parties shall, to the extent practicable, apply any changed policy or Guidance in such a way as to avoid, as much as possible, the need for repeating Work already accomplished.

37.3.4 Changes in ARARs are governed by Section 300.430(f)(1)(ii)(B)(1) of the NCP.

XXXVIII. STATE RESERVATION OF RIGHTS

38.1 Notwithstanding any other Section of this Agreement, the State shall retain any statutory right it may have to obtain judicial review of any final decision of EPA including, without limitation, any authority the State may have under CERCLA Sections 113, 121(e)(2), 121(f)(3), and 310, 42 U.S.C. Sections 9613, 9621(e)(2), 9621(f)(3), and 9659, Section 7002 of RCRA, Section XXIII – ENFORCEABILITY of this Agreement, and State law, except that the State expressly agrees to exhaust any applicable remedies provided in Section X – CONSULTATION and Section XX – DISPUTE RESOLUTION of this Agreement, prior to exercising any such rights.

38.2 Notwithstanding anything in this Agreement, the State reserves the right to initiate any administrative, legal, or equitable remedies available to it based upon: (a) NASA's failure or refusal to comply with any requirement of State laws or regulations required under this Agreement; or (b) except as provided in a ROD, past, present, or future disposal of hazardous substances or contaminants outside the boundaries of the areas of contamination within the Site for which NASA Ames sources are responsible; or (c) past, present, or future violations of Federal or State criminal law; or (d) violations of Federal or State law other than those addressed in this Agreement that occur during or after implementation of a RA; or (e) damages for injury to, destruction of, or loss of natural resources, and the cost of any natural resource damage assessments. The State expressly agrees to exhaust any applicable remedies provided in Section X – CONSULTATION, and Section XX – DISPUTE RESOLUTION, prior to exercising any such rights.

38.3 With regard to all matters not expressly addressed by this Agreement, the State specifically reserves all rights to institute equitable, administrative, civil, and criminal actions for any past, present, or future violation of any statute, regulation, permit, or order, or for any pollution or potential pollution to the air, land, or waters of the State.

38.4 In the event that NASA' obligations under this Agreement are not fulfilled for six consecutive months, the State shall have the option of terminating all provisions of the Agreement affecting the State's rights and responsibilities, and the State may thereafter seek any appropriate relief. The State, however, expressly agrees to exhaust any applicable remedies provided in Section X – CONSULTATION, and Section XX – DISPUTE RESOLUTION, prior to exercising any such rights. Thereafter, the State will provide the other Parties with ten (10)

days notice of its intent to terminate. This Section does not create any right that the State does not already have under applicable law.

XXXIX. SEVERABILITY

39.1 If any provision of this Agreement is ruled invalid, illegal, or unconstitutional, the remainder of the Agreement shall not be affected by such a ruling.

XL. TERMINATION AND SATISFACTION

40.1 The provisions of this Agreement shall be deemed satisfied upon a consensus of the Parties that NASA has completed its obligations under the terms of this Agreement. Following EPA Certification of all the response actions at the Site that are the responsibility of NASA pursuant to Subsection 9.8 of Section IX – WORK TO BE PERFORMED, any Party may propose in writing the termination of this Agreement upon a showing that the requirements of this Agreement have been satisfied. The obligations and objectives of this Agreement shall be deemed satisfied and terminated upon receipt by NASA of written notice from EPA, with concurrence of the State that NASA has demonstrated that all the requirements of this Agreement have been satisfied. A Party opposing termination of this Agreement shall provide a written statement of the basis for its denial and describe the actions necessary to grant a termination notice to the proposing Party within ninety (90) days of receipt of the proposal.

40.2 Any disputes arising from this Termination and Satisfaction process shall be resolved pursuant to the provisions of Section XX – DISPUTE RESOLUTION, of this Agreement.

40.3 Upon termination of this Agreement, NASA Ames shall place a public notice announcing termination in two (2) local newspapers of general circulation.

40.4 This Section shall not affect the Parties' obligations pursuant to Section XIX – PERIODIC REVIEW or Section XXXI – RECORD PRESERVATION of this Agreement. In no event will this Agreement terminate prior to NASA completion of the Work required by this Agreement.

AUTHORIZED SIGNATURES

The undersigned representative certifies that he or she is fully authorized by the Party he or she represents to enter into the terms and conditions of this Agreement and to legally bind such Party to this Agreement. This Agreement shall apply to and be binding upon EPA, NASA, and the State.

IT IS SO AGREED:

By

Director, NASA Ames Research Center

10/16/2014
Date

AUTHORIZED SIGNATURES

The undersigned representative certifies that he or she is fully authorized by the Party he or she represents to enter into the terms and conditions of this Agreement and to legally bind such Party to this Agreement. This Agreement shall apply to and be binding upon EPA, NASA, and the State.

IT IS SO AGREED:

By

Regional Administrator
Environmental Protection Agency, Region IX

Date 11/14/14

AUTHORIZED SIGNATURES

The undersigned representative certifies that he or she is fully authorized by the Party he or she represents to enter into the terms and conditions of this Agreement and to legally bind such Party to this Agreement. This Agreement shall apply to and be binding upon EPA, NASA, and the State.

IT IS SO AGREED:

By

Bruce H. Wolfe

Executive Officer
San Francisco Bay
Regional Water Quality Control Board

Nov. 6, 2014
Date

Appendix A -- The following table lists those OUs and AOIs Requiring NASA to Perform an RI/FS:

OU/AOI No.	OU/AOI Name	Regulatory Oversight	Status	Comments
NASA AOI 6	Former Lindbergh Storm Drain Ditch	EPA/Regional Water Board		NASA conducted remediation in 1994, 1995, 1996 and 2001 for lead and PCBs (Aroclors 1254, 1260, 1262 and 1268) at AOI 6 removing concrete lining and soil to depths of up to 3.5 feet along the entire 2000-ft length of the ditch. The PCB cleanup level of 0.47 mg/kg exceeds neighboring downstream Navy Site 25 PCB remedial goal of 0.2 mg/kg. Completion Report to be submitted to EPA and Regional Water Board.
NASA AOI 14	Former Soil Fill Area, N271, N271A	EPA	Corrective Action/RI/FS	2013 RCRA 7003 Order Final Corrective Actions Pending. Upon execution of this FFA, remaining response actions will be conducted under CERCLA.

Appendix B -- The following table lists those OUs and AOIs with a Proposed Plan, Record of Decision, or Completed Remedial Action requiring NASA Ames to perform work:

OU/AOI No.	OU/AOI Name	Regulatory Oversight	Status	Comments
NASA AOIs 3, 7, and 9: Vapor Intrusion	NASA Ames Area of Responsibility within MEW Vapor Intrusion Study Area AOI 3 includes the following formerly independent AOIs: 1 – Former Jet Fuel Depot Area 2 – N239, N239A, N210, N243 and N243A Area 3 – USTs in N248A, N248B and N259 Area 3 East – N248, N248C, and N248D Area 12 – N211 Area AOI 7 contains Navy Site 8 North and NASA Ames VTOL (Vertical Takeoff and Landing Area) AOI 9 includes the N244 and N245 Areas	EPA	MEW 2010 Vapor Intrusion ROD Amendment: RD	NASA Ames is implementing vapor intrusion work in NASA Ames' Area of Responsibility in the NAS Moffett Field Area of the Vapor Intrusion Study Area. Additionally, NASA is responsible for implementing ICs in all areas owned by NASA that are within the NAS Moffett Field Area of the Vapor Intrusion Study Area.
NASA AOIs 3, 7, and 9: Groundwater	NASA Ames Groundwater Area of Responsibility to MEW Regional Plume AOI 3 includes the following formerly independent AOIs: 1 – Former Jet Fuel Depot Area 2 – N239, N239A, N210, N243 and N243A Area 3 – USTs in N248A, N248B and N259 Area 3 East – N248, N248C, and N248D Area 12 – N211 Area AOI 7 contains Navy Site 8 North and NASA Ames VTOL (Vertical Takeoff and Landing Area) AOI 9 includes the N244 and N245 Areas	EPA	MEW 1990 ROD: RA	

OU/AOI No.	OU/AOI Name	Regulatory Oversight	Status	Comments
Navy OU 1	Navy Sites 1 and 2 Landfills	EPA/ Regional Water Board	Navy OU1 ROD (August 1997); O&M	As property owner, NASA is responsible to implement any selected ICs.
Navy Site 28	Navy Site 28: West Side Treatment System (WATS)	EPA/ Regional Water Board	MEW 1990 ROD: O&M	As property owner, NASA is responsible to implement any selected ICs.
Navy OU 5	Navy Site 26: East Side Treatment System (EATS)	EPA/ Regional Water Board	O&M; pending ROD Amendment.	As property owner, NASA is responsible to implement any selected ICs.
Navy Site 8	Navy Site 8: Waste Oil Transformers	EPA/ Regional Water Board	O&M	Navy submitted Final Completion Report for petroleum and PCB contamination in April 2013 for soil removal conducted by NASA Ames. Continued monitoring for petroleum required. As property owner, NASA is responsible to implement ICs should they be required.
Navy Site 22	Navy Site 22 Landfill (Golf Course)	EPA/ Regional Water Board	June 2002 ROD; O&M	As property owner, NASA is responsible to implement any selected ICs.
Navy Site 29	Hangar 1	EPA/ Regional Water Board	NTCRA completed 2013; Draft Final ROD submitted	As property owner, NASA is responsible to implement ICs.

Appendix C -- The following table lists NASA AOIs being addressed under other regulatory programs and their status. These AOIs are not subject to the scope of this FFA.

OU/AOI No.	OU/AOI Name	Regulatory Oversight	Status	Comments
NASA AOI 4	NFAC: National Full-Scale Aerodynamic Complex	DTSC	O&M	
NASA AOI 5	N225B - Substation Soils	DTSC	No Further Action	
NASA AOI 8	Navarro Farms Area - N267 and bioremediation pond	DTSC	No Further Action	
NASA AOI 10	Substations N221C, N227D, N238A	DTSC	No Further Action	
NASA AOI 11	14 Underground Storage Tanks	DTSC	No Further Action	
NASA AOI 15	NASA Fuel Line	Santa Clara County Department of Public Health	No Further Action	
NASA AOI 16	Building N218 Demolition	Santa Clara County Department of Public Health	No Further Action	

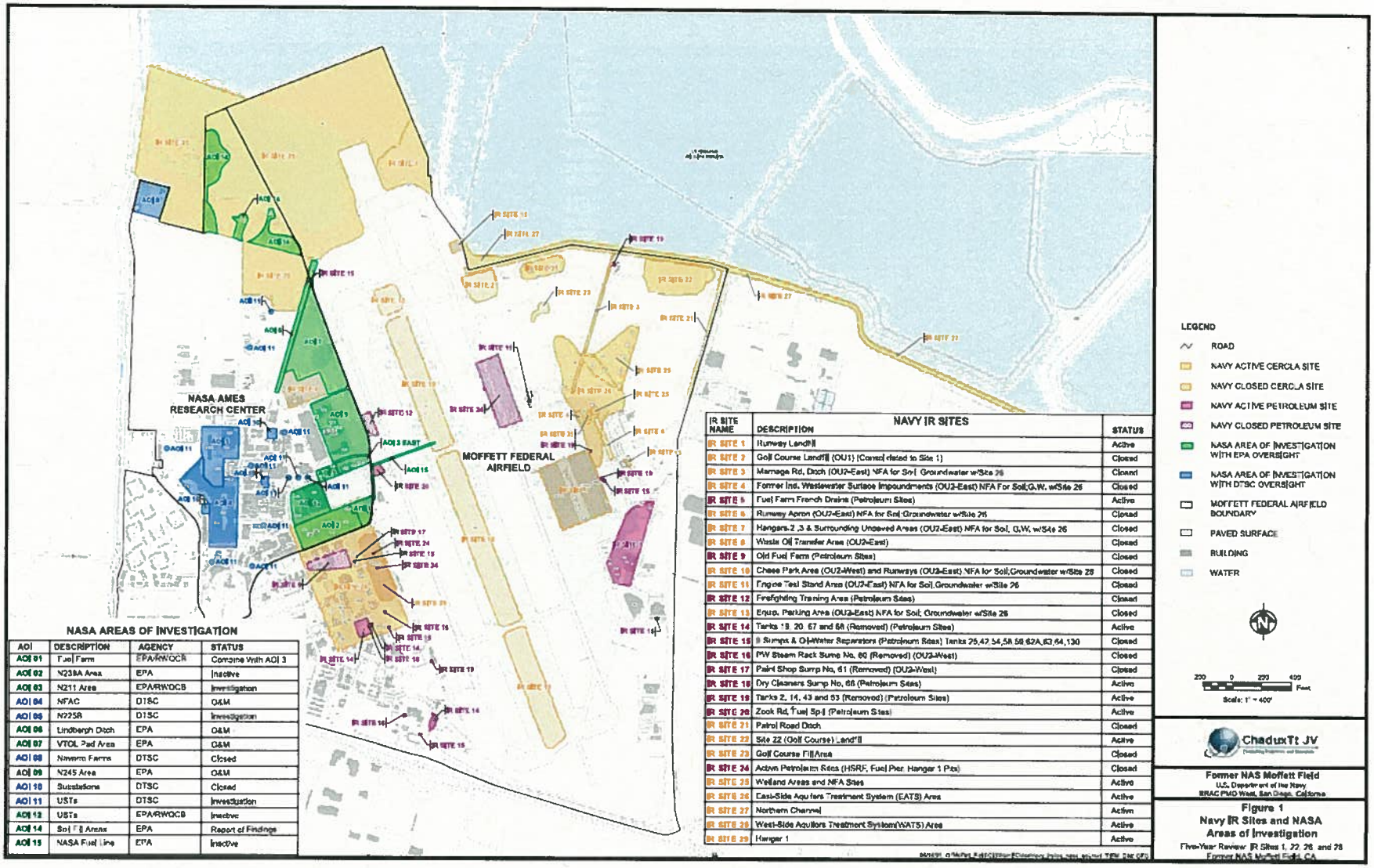
Appendix D – FFA Acronym List

List of Acronyms

AOI	Area of Investigation
AOU	Accelerated Operable Unit
ARAR	Applicable or Relevant and Appropriate Requirements
ARC	Ames Research Center
BRAC	Base Realignment and Closure
CANG	California Air National Guard
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CIP	Community Involvement Plan
CWSAP	Center-Wide Sampling and Analysis Program
DDT	Dichlorodiphenyltrichloroethane
DOD	Department of Defense
DQO	Data Quality Objective
DRC	Dispute Resolution Committee
DTSC	Department of Toxic Substances Control
EATS	East-side Aquifer Treatment System
ECR	Environmental Compliance and Restoration
EE/CA	Engineering Evaluation/Cost Estimate
EPA	United States Environmental Protection Agency
FFA	Federal Facility Agreement
FFS	Focused Feasibility Study
FS	Feasibility Study
FSFA	Former Soil Fill Area
FY	Fiscal Year
GSA	General Services Administration
HASP	Health and Safety Plan
HQ	Headquarters
IC	Institutional Control
IRA	Interim Remedial Actions
LUC	Land Use Control
MCL	Maximum Contaminant Level
MEW	Middlefield-Ellis-Whisman
mg/kg	Milligram per Kilogram
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
µg/L	Microgram per Liter
NAS	Naval Air Station
NASA	National Aeronautics and Space Administration
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
NTCRA	Non-Time-Critical Removal Action
O&M	Operation and Maintenance

OMB	Office of Management and Budget
OU	Operable Unit
PCB	Polychlorinated Biphenyl
ppb	Parts Per Billion
PPBE	Planning, Programming and Budget Execution
PRP	Potentially Responsible Party
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RA	Remedial Action
RAB	Restoration Advisory Board
RACR	Remedial Action Completion Report
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RD/RA	Remedial Design/Remedial Action
RFP	Request for Proposal
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments and Reauthorization Act
SEC	Senior Executive Committee
SES	Senior Executive Services
SI	Site Investigation
SMP	Site Management Plan
SOW	Statement of Work
SWSB	Storm Water Settling Basin
TCE	Trichloroethene
TCRA	Time-Critical Removal Action
UAO	Unilateral Administrative Order
VOC	Volatile Organic Compound
VTOL	Vertical Takeoff and Landing
WATS	West-side Aquifer Treatment System

Figure 1 - Former NAS Moffett Field



NASA AREAS OF INVESTIGATION

AOI	DESCRIPTION	AGENCY	STATUS
AOI 01	Fuel Farm	EPA/RWQCB	Combine With AOI 3
AOI 02	N238A Area	EPA	Inactive
AOI 03	N211 Area	EPA/RWQCB	Investigation
AOI 04	NFAC	DTSC	O&M
AOI 05	N225B	DTSC	Investigation
AOI 06	Lindbergh Ditch	EPA	O&M
AOI 07	VTOL Pad Area	EPA	O&M
AOI 08	Navarro Farms	DTSC	Closed
AOI 09	N245 Area	EPA	O&M
AOI 10	Substations	DTSC	Closed
AOI 11	USTs	DTSC	Investigation
AOI 12	USTs	EPA/RWQCB	Inactive
AOI 14	Soil Fill Areas	EPA	Report of Findings
AOI 15	NASA Fuel Line	EPA	Inactive

NAVY IR SITES

IR SITE NAME	DESCRIPTION	STATUS
IR SITE 1	Runway Landfill	Active
IR SITE 2	Golf Course Landfill (OU1) (Consolidated to Site 1)	Closed
IR SITE 3	Marriage Rd. Ditch (OU2-East) NFA for Soil Groundwater w/Site 26	Closed
IR SITE 4	Former Ind. Wastewater Surface Impoundments (OU2-East) NFA For Soil,G.W. w/Site 26	Closed
IR SITE 5	Fuel Farm French Drains (Petroleum Sites)	Active
IR SITE 6	Runway Apron (OU2-East) NFA for Soil Groundwater w/Site 26	Closed
IR SITE 7	Hangars 2 ,3 & Surrounding Unpaved Areas (OU2-East) NFA for Soil, G.W. w/Site 26	Closed
IR SITE 8	Waste Oil Transfer Area (OU2-East)	Closed
IR SITE 9	Old Fuel Farm (Petroleum Sites)	Closed
IR SITE 10	Chase Park Area (OU2-West) and Runways (OU2-East) NFA for Soil,Groundwater w/Site 28	Closed
IR SITE 11	Engine Test Stand Area (OU2-East) NFA for Soil,Groundwater w/Site 26	Closed
IR SITE 12	Firefighting Training Area (Petroleum Sites)	Closed
IR SITE 13	Equip. Parking Area (OU2-East) NFA for Soil, Groundwater w/Site 26	Closed
IR SITE 14	Tanks 19, 20, 67 and 68 (Removed) (Petroleum Sites)	Active
IR SITE 15	9 Sumps & Oil-Water Separators (Petroleum Sites) Tanks 25,47,54,58,62A,63,64,130	Closed
IR SITE 16	PW Steam Rack Sump No. 60 (Removed) (OU2-West)	Closed
IR SITE 17	Paint Shop Sump No. 61 (Removed) (OU2-West)	Closed
IR SITE 18	Dry Cleaners Sump No. 66 (Petroleum Sites)	Active
IR SITE 19	Tanks 2, 14, 43 and 53 (Removed) (Petroleum Sites)	Active
IR SITE 20	Zook Rd. Fuel Spill (Petroleum Sites)	Active
IR SITE 21	Patrol Road Ditch	Closed
IR SITE 22	Site 22 (Golf Course) Landfill	Active
IR SITE 23	Golf Course Fill Area	Closed
IR SITE 24	Active Petroleum Sites (HSRF, Fuel Pier, Hangar 1 Pits)	Closed
IR SITE 25	Wetland Areas and NFA Sites	Active
IR SITE 26	East-Side Aquifers Treatment System (EATS) Area	Active
IR SITE 27	Northern Channel	Active
IR SITE 28	West-Side Aquifers Treatment System(WATS) Area	Active
IR SITE 29	Hangar 1	Active

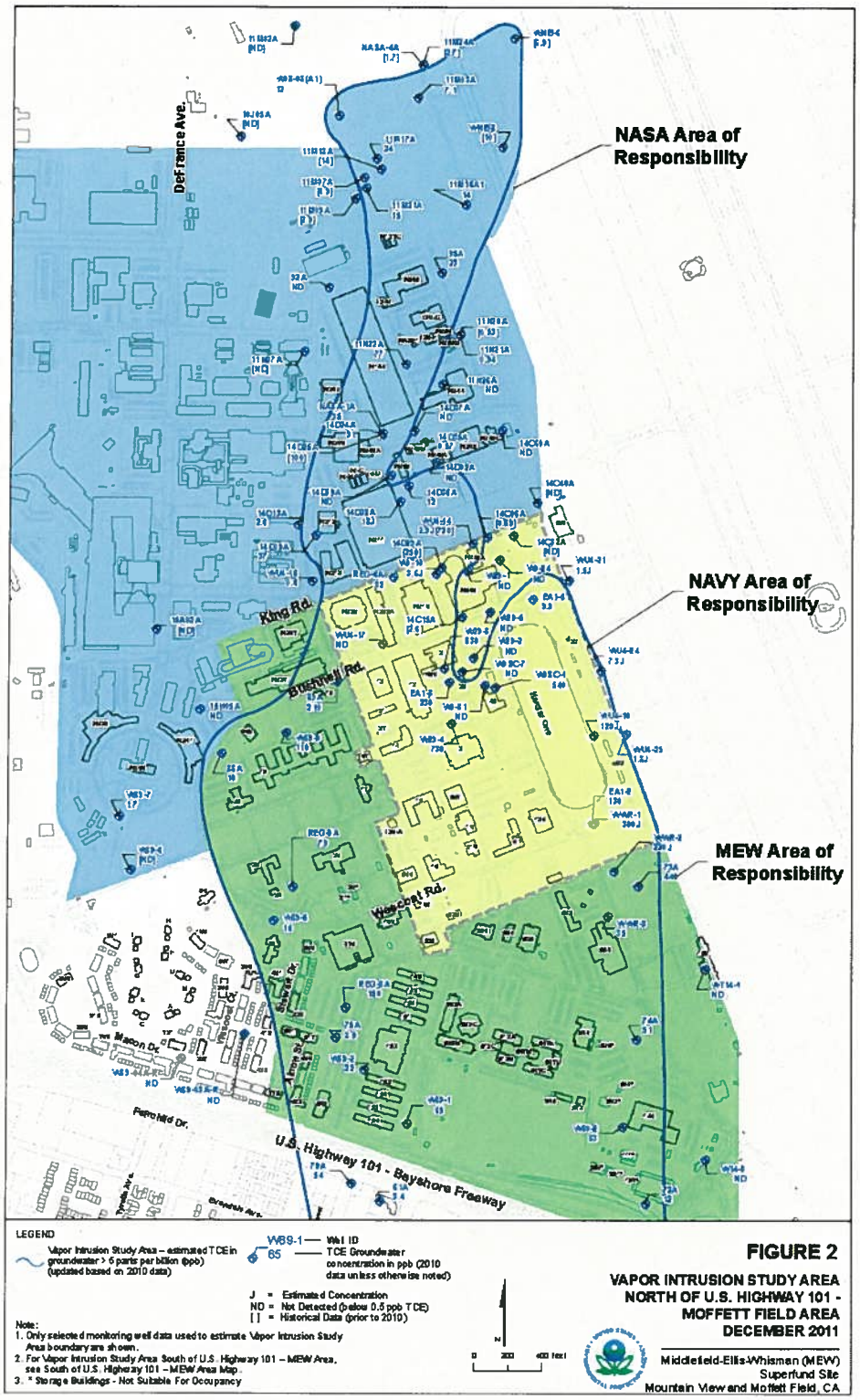



Figure 2 - Vapor Intrusion Study Area