

Chapter 22 - NEPA Management (REDACTED)

22.1 Applicability

This instruction applies to all civil servant, contractor employees, resident agency personnel and partners who implement projects and programs at Ames Research Center (ARC), or Crows Landing Flight Facility.

22.2 Purpose

This chapter establishes the minimum requirements to ensure ARC's environmental review of proposed actions complies with applicable Federal, state, and local regulations.

The National Environmental Policy Act (NEPA) is Federal legislation that establishes the environmental policy for the nation. The act requires Federal agencies to consider the environmental effects of their actions before beginning a project and to examine alternative actions that would reduce any threat or harm posed to the environment. NEPA is also an environmental disclosure statute. The act provides procedural requirements to ensure all Federal agencies comply with the law.

22.3 Policy

It is the policy of ARC to comply with all applicable Federal, state, and local regulations.

22.4 Authority

All relevant Federal, state, and local laws and regulations pertaining to the assessment of environmental impacts, but not limited to:

1. National Environmental Policy Act of 1969, as amended (42, USC 4321-4345)
2. Council on Environmental Quality Regulations (40 CFR Part 1500)
3. The Endangered Species Act of 1972, as amended (16 USC 1531-1544)
4. The National Historic Preservation Act of 1966, as amended (16 USC 470)
5. Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 and the Water Quality Act of 1987 (33 USC 1251 et seq.)
6. The Coastal Zone Management Act of 1972, as amended
7. Bay Conservation and Development Commission (BCDC) Bay Plan
8. NPG 8580.1 Procedures and Guidelines (NPG) for Implementing National Environmental Policy Act and Executive Order 12114
9. NASA NEPA regulations (14 CFR Part 1216)
10. Clean Air Act New Source Review and Conformity Determination Regulations
11. State and local noise guidelines and regulations

22.5 Responsibilities

22.5.1 All Directorates

REDACTED

22.5.2 R&D Project or Program Initiator

REDACTED

22.5.3 Facilities Project Initiator

REDACTED

22.5.4 Environmental Services Office, Code QE

1. Assist the project/program initiator as needed.
2. Serve as the focal point for all required off-center coordination (NASA Headquarters, other Federal agencies, state and local agencies, public organizations, etc.)
3. Review and concur on appropriate environmental analysis including NEPA documentation and technical studies.
4. Prepare REC (see Appendix C, section 22.9.3.).
5. Prepare an annual Environmental Monitoring Report that contains the environmental documentation for a given fiscal year.
6. Process Findings of No Significant Impact (FONSI) and EAs in accordance with NHB 8800.11 to include the following actions:
 - Review Draft EA (DEA) for adequacy.
 - Prepare FONSI.
 - Coordinate approval with ARC Center Director and approving officials at NASA Headquarters Code JE.
 - Publish notices in local papers. Coordinate the distribution of the FONSI with other Federal, state, and local agencies, as well as with organizations and individuals.
 - Maintain mailing lists.
 - Respond to public comments.
 - The FONSI on actions that are state or local in scope shall be published in a regional or local newspaper. The FONSI on actions that are national in scope shall also be published in the Federal Register. The public shall be allowed 30 days to comment on the finding, and supporting information shall be readily available on request.
7. Process EISs in accordance with NPG 8580.1, Implementing The National Environmental Policy Act and Executive Order 12114 to include the following actions:
 - Prepare Notice of Intent (NOI) to prepare an EIS.
 - Coordinate approval with NASA Headquarters Code JE for publication of NOI in the *Federal Register*.
 - Publish notices in local papers.
 - Organize public scoping meetings.
 - Assist in scoping and review of technical studies as needed.
 - Assist in developing DEIS and FIES.
 - Participate in internal review of the Draft EIS (DEIS) and plan for coordination with other Federal, state, and local agencies, organizations, and individuals.
 - Maintain mailing lists.
 - Submit DEIS to the EPA, through NASA Headquarters Code JE. Subsequent to NASA Headquarters Code JE approval the public shall have a minimum of 45 days from the date the EPA's public notice of availability of the DEIS is published in the *Federal Register*.
 - Publish NASA's Notice of Availability of DEIS in the *Federal Register* and/or local news media.
 - Coordinate review of the DEIS and Final EIS (FEIS) by other Federal, state, and local agencies, as well as by organizations and interested parties.
 - Hold public comment meetings, as needed.
 - Prepare or review responses to comments on both the DEIS and FEIS.
 - Provide for public noticing and availability of the DEIS.

- Prepare, coordinate, and approve the Record of Decision (ROD) with Headquarters Code JE, following the completion of the FEIS. Specific criteria contained in NPG 8580.1, Chapter 6.4 section 6.4.7.1 (f) pertaining to RODs shall be followed.
8. Maintain and update the ARC Environmental Resources Document (ERD) as needed.
 9. Track mitigation measures.

22.6 Definitions

22.6.1 Categorical Exclusion (CatEx)

An exclusion from NEPA that is granted to project actions that do not individually or cumulatively have a significant effect on the environment. Specific NASA actions that normally can be covered by a CatEx include:

1. Research and development activities in:
 - Space science (other than specific spacecraft development and flight projects).
 - Space and terrestrial applications (other than specific spacecraft development and flight projects).
 - Aeronautics and space technology and energy technology applications (other than experimental projects that have the potential for substantial environmental impacts).
 - Space transportation systems engineering and scientific and technical support operations, routine transportation operations, and advanced studies.
 - Space tracking and data systems.
2. Facility planning and design (funding).
3. Minor construction of new facilities including rehabilitation, modification, and repair.
4. Continuing operations of a NASA installation at a level-of-effort, or altered operations, provided the alterations induce only social or economic results but no (or minimal) natural or physical environmental effects.

Note: Even though an action may be categorically excluded from the need for a formal EA or EIS, the action is not excluded from the requirement for an environmental analysis during the earliest planning phases. If the analysis shows that the action deviates from the criteria for exclusion and a review of the analysis concludes that there may be significant environmental consequences, an EA must be carried out. Based upon that assessment, a determination must then be made whether or not to prepare an EIS.

22.6.2 Cooperating Agency

A Federal agency, other than the lead agency, that has legal jurisdiction or special expertise to comment on the project actions of a lead agency.

22.6.3 Cumulative Effects

Effects resulting from incremental consequences of an action, when added to other past, present, and reasonably foreseeable future actions, regardless of which agency (Federal or non-Federal) or person undertakes such actions.

22.6.4 Environmental Assessment (EA)

A concise public document that:

1. Provides brief but sufficient evidence and analysis to determine whether an EIS needs to be prepared.
2. Aids an agency's compliance with NEPA when an EIS is not necessary.
3. Facilitates preparation of an EIS when necessary.

4. Specific NASA actions that normally require an EA include, but are not limited to:
 - Specific spacecraft development and flight projects in space science.
 - Specific spacecraft development and flight projects in space and terrestrial applications.
 - Specific experimental projects in aeronautics and space technology and energy technology applications which may have a substantial effect on the human environment.
 - Development and operation of new space transportation systems and advanced development of new space transportation and spacecraft systems.
 - Reimbursable launches of non-NASA spacecraft or payloads.
 - Major Construction of Facilities projects.
 - Actions to alter ongoing operations at NASA installations that could lead, either directly or indirectly, to natural or physical environmental consequences (a substantial increase in noise from wind tunnels or flight line, substantial increase in traffic, substantial increase in air emissions).

22.6.5 Environmental Impact Statement (EIS)

A report that provides a full and fair discussion of significant environmental impacts and informs decision-makers and the public of the reasonable alternatives that would avoid or minimize adverse consequences or enhance the quality of the human environment. An EIS is an action-forcing device to insure that the policies and goals of NEPA are integrated into NASA programs and actions.

Specific NASA actions that are expected to significantly affect the human environment (and therefore normally require an EIS) include, but are not limited to:

- Development and operation of new launch vehicles.
- Development and operation of space vehicles likely to release substantial amounts of foreign materials into Earth's atmosphere or space.
- Development and operation of nuclear systems, including nuclear reactors and thermal devices used for propulsion and power generation, or both.
- Significant increase in noise exposure to the community from wind tunnels or flight line, significant increase in traffic, significant increase in noise, significant increase in air emissions).

22.6.6 Environmental Resources Document (ERD)

A succinct centerwide report that characterizes all aspects of the installation's environment at the time of report preparation and describes the environmental consequences of the installation's existing operations. The ERD is used to assess the significance of subsequent proposed actions on the environment.

22.6.7 Finding of No Significant Impact (FONSI)

A public document that reflects the agency's final decision and briefly presents the reasons why an action will not harm the human environment. A FONSI explains why the preparation of an EIS is unnecessary.

A FONSI on actions that are state or local in scope shall be published in a regional or local newspaper. The FONSI on actions that are national in scope shall also be published in the *Federal Register*. The public shall be allowed 30 days to comment on the finding, and supporting information should be readily available upon request.

22.6.8 Indirect Effects

Effects (caused by an action) that occur later or at another location, but that are reasonably foreseeable.

22.6.9 National Environmental Policy Act (NEPA)

Federal legislation that establishes environmental policy for the nation. NEPA requires that Federal agencies take the environmental consequences of their actions into consideration before beginning a project and that agencies consider less harmful alternatives to their proposed activities. NEPA is also an environmental disclosure statute, providing procedural requirements to ensure all Federal agencies are in compliance.

22.6.10 Notice of Availability

A written notice published in the *Federal Register* and/or local news media that announces the availability of a draft or final EIS for public review.

22.6.11 Notice of Intent (NOI)

The first formal step in the EIS process. The NOI consists of a public notice with the following information: a description of the proposed action and alternatives; a description of the agency's proposed scoping process, including scoping meetings; and the names and addresses of the persons to contact within the lead agency about the EIS.

22.6.12 Record of Decision (ROD)

A public document that reflects the agency's final decision, rationale behind that decision, and commitments to monitoring and mitigation. The ROD is signed by the ARC Center Director and Headquarters Code JE, kept in the program's official files, and made available on request. The ROD is not published in the *Federal Register*.

22.6.13 Record of Environmental Consideration (REC)

A document that specifies whether a proposed action qualifies for a CatEx, requires an EA, or requires an EIS.

22.7 NEPA Management

22.7.1 Required Actions

1. Offices initiating actions must prepare an Environmental Checklist and, as applicable, an EA or EIS in accordance with the requirements of NPG 8580.1, Implementing The National Environmental Policy Act and Executive Order 12114 and other relevant environmental laws, regulations, and Executive Orders. Early involvement enables agencies to efficiently address issues that may arise during the NEPA process. A copy of the Environmental Decision Points is included in this chapter (see Appendix F, section 22.9.6).
2. The Environmental Office (Code QE) monitors on-going activities to ensure compliance with the NEPA.

22.7.2 Project Implementation

No construction or implementation of any Federal action requiring NEPA review may commence prior to finalization of NEPA documentation. This includes the mandatory 30-day public review period following finalization of a FONSI for an EA or ROD for an EIS.

22.8 Metrics

- a. Percent of Programs & Projects with NEPA documentation, thus avoiding project impacts (e.g., Mars Rover). Goal: 100%.
- b. Percent of NEPA documents reviewed within project schedule. Goal: 100%.
- c. Percent of activities requiring public participation receiving public outreach from ARC. Goal: 100%.
- d. Percent of projects with environmental requirements identified during the planning phase. Goal: 100%.

22.9 Sources of Additional Information or Assistance

1. Environmental Services Office (Code QE, REDACTED)
2. NPG 8580.1, Implementing The National Environmental Policy Act and Executive Order 12114
3. Environmental Resources Document, available by contacting the Environmental Services Office

22.10 Appendices

22.10.1 Appendix A: NEPA Environmental Checklist (R&D Projects)

NEPA Environmental Checklist (R&D Projects)

Project Name:	Date of Selection:
Project Contact:	Project Start Date:
Building Number and Location:	Phone Number:
Description of Project:	

Environmental points of contact and additional information on the topics below can be found at <http://q.arc.nasa.gov/qe>.

Environmental Impacts:

"Yes" responses may require the project to prepare an Environmental Assessment or conduct additional studies.

A. Geologic:		Yes	No	Unknown
a.	Greater than 10% change in topography or ground surface relief features?			
b.	Any increase in soil or water erosion of soils, either on or off site?			
c.	Changes in deposition, siltation, or erosion that may modify the wetlands or bay?			
Explain all "yes" and "unknown" answers:				
B. Air:		Yes	No	Unknown
a.	Substantial air emissions or deterioration of ambient air quality?			
b.	The creation of objectionable odors outside of the facility?			
c.	Alteration of air movement, moisture, temperature, or any change in climate, locally or regionally?			
Explain all "yes" and "unknown" answers:				
C. Water:		Yes	No	Unknown
a.	Disturbance of groundwater?			
b.	Greater than 10% changes in absorption rates, drainage patterns, or rate and amount of surface runoff?			
c.	Alter the course or flow of flood waters?			
d.	Alteration of the direction or rate of ground waters?			
e.	Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?			
f.	Activities resulting in changes of greater than 10 percent of Center total potable water use (more than 35,100,000 gallons/year)?			
g.	Any construction or other activity in a floodplain or wetland?			
Explain all "yes" and "unknown" answers:				
D. Cultural Resources:		Yes	No	Unknown
a.	Is the project located in an historic district or affects an existing landmark?			
b.	Will the project alter a building that is 50 years or older?			
c.	Is the project located in an area of suspected archaeological resources?			
Explain all "yes" and "unknown" answers:				
E. Biological Resources:		Yes	No	Unknown
a.	Construction/grading/filling within or adjacent to designated wetlands?			
b.	Reduction of the numbers of any rare, or endangered species?			
c.	Construction/grading/filling within open space or grasslands areas?			
d.	Introduction of new species or plants into an area, or impacts normal replenishment of existing species?			
e.	Proposed construction activities in burrowing owl habitat?			
f.	Propose new landscaping or modify existing landscaping?			
Explain all "yes" and "unknown" answers:				
F. Noise:		Yes	No	Unknown
a.	A noise increase greater than 10% from an existing operation?			
b.	Exposure of people to severe noise levels (above 80 dBA)?			
c.	Increase existing CNEL noise contours surrounding the airfield or Ames?			
Explain all "yes" and "unknown" answers:				

G. Land Use:		Yes	No	Unknown
a.	Substantial alteration of the present or planned land use?			
b.	Increase in the rate of use of any natural resource?			
c.	Activities resulting in changes of greater than 10 percent of Center energy consumption (15,000,000 KWH of office electricity, 15,000,000 KWH wind turbine electricity, or 382,000 tons of natural gas)?			
d.	Activities resulting in a change in total employment levels greater than 10 percent (More than 620 people)?			
Explain all "yes" and "unknown" answers:				
H. Sustainability:		Yes	No	Unknown
a.	Not using the LEED - Green Building Rating System, at http://www.usgbc.org/programs/LEED-RS/ or other green building/sustainable design elements?			
b.	Not using materials with the least impact on the environment (e.g. least toxic, recyclable, recycled-content, locally produced, low polluting, long life-cycle, harvested on a sustained yield basis)?			
c.	Not using EPA's Comprehensive Procurement Guidelines at http://www.epa.gov/cpg/products.htm ?			
d.	Inefficient use of energy, water and other resources?			
Explain all "yes" and "unknown" answers:				
I. Health and Safety:		Yes	No	Unknown
a.	Generation of ionizing or non-ionizing radiation?			
b.	Generate air emissions?			
c.	Use of pesticides, including insecticides, herbicides, fungicides or rodenticides?			
d.	Confined spaces entry?			
e.	Risk of exposure to asbestos or lead containing materials?			
f.	Result in the exposure or disturbance of contaminated soil or ground water?			
g.	Generate industrial waste water or storm water discharge?			
h.	Use of Class I ozone depleting substances (CFCs, TCA, halons)?			
i.	Acquisition, use, or storage of any toxic or hazardous substance?			
j.	Generation of medical (biohazard), hazardous, toxic, or radiological wastes?			
k.	Use, disturbance, or disposal of PCBs?			
l.	Use of toxic gas?			
Explain all "yes" and "unknown" answers:				
J. Transportation/Circulation:		Yes	No	Unknown
a.	Generation of substantial vehicle trips (20 per day)?			
b.	Affect existing parking facilities or demand for new parking?			
c.	Substantial impact upon existing transportation systems?			
d.	Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?			
Explain all "yes" and "unknown" answers:				
K. Services:		Yes	No	Unknown
a.	Affect or result in need for new or altered government-provided fire protection services?			
b.	Affect or result in need for new or altered government-provided security services?			
Explain all "yes" and "unknown" answers:				
L. Environmental Justice:		Yes	No	Unknown
a.	Does the project have the potential to disproportionately affect low income populations or minority populations?			
Explain if answer is "yes" or "unknown":				
M. Controversy:		Yes	No	Unknown
a.	Does the project have the potential to generate public controversy?			
Explain if answer is "yes" or "unknown":				

22.10.2 Appendix B: NEPA Environmental Checklist (R&D Projects Off-Site)

NEPA Environmental Checklist (Offsite R&D Projects)

Project Name:		Date of Selection:	
Project Contact:		Project Start Date:	
Location:		Phone Number:	
Description of Project:			
Location of Project:			
Nature of Environment:			
Administrative Facility governing land:			
Facility Contact:			
Facility's Environmental Office contact:			

Environmental points of contact and additional information on the topics below can be found at <http://c.arc.nasa.gov/ge>.

Environmental Impacts:

"Yes" responses may require the project to prepare an Environmental Assessment or conduct additional studies.

		Yes	No	Unknown
A. Geologic:				
a.	Change in topography or ground surface relief features?			
b.	Increased erosion of soils, either on or off site?			
c.	Change in deposition, siltation, or erosion that may affect adjacent water bodies or wetlands?			
Explain all "yes" and "unknown" answers:				
B. Air:				
a.	Substantial air emissions or deterioration of ambient air quality?			
b.	Creation of objectionable odors outside of the facility?			
c.	Alteration of air movement, moisture, temperature, or any change in climate, locally or regionally?			
Explain all "yes" and "unknown" answers:				
C. Water:				
a.	Disturbance of groundwater?			
b.	Change in absorption rates, drainage patterns, or rate and amount of surface runoff?			
c.	Alter the course or flow of flood waters?			
d.	Alteration of the direction or rate of ground water flow?			
e.	Change in the quality or quantity of ground waters?			
f.	Changes in total potable water use?			
g.	Any activity in a floodplain or wetland?			
Explain all "yes" and "unknown" answers:				
D. Cultural Resources:				
a.	Does the project have adverse effects on existing historic or cultural landmarks?			
b.	Will the project alter a building that is 50 years or older?			
c.	Is the project located in an area of suspected or known archaeological resources?			
Explain all "yes" and "unknown" answers:				
E. Biological Resources:				
a.	Construction/grading/filling within or adjacent to designated wetlands?			
b.	Reduction of the numbers of any rare, or endangered species?			
c.	Construction/grading/filling within open space or grasslands areas?			
d.	Introduction of new species or plants into an area, or impact to normal replenishment of existing species?			
e.	Construction activities in rare or endangered species habitat?			
f.	Will the project take place in or have the potential to adversely affect ecologically sensitive areas (e.g. National Park wilderness areas, biological reserves, recreation or refuge areas, wild or scenic rivers, prime farmlands, landmarks listed on the National Register of Natural Landmarks, etc.)?			
Explain all "yes" and "unknown" answers:				
F. Noise:				
a.	An increase in noise greater than 10% from an existing operation?			
b.	Exposure of people to severe noise levels (above 80 dBA)?			
Explain all "yes" and "unknown" answers:				
G. Land Use:				
a.	Substantial alteration of the present or planned land use?			
b.	Increases in the rate of use of any natural resource?			
c.	Substantial increase in energy consumption?			
d.	Substantial change in total employment levels?			
Explain all "yes" and "unknown" answers:				

H. Sustainability:		Yes	No	Unknown
a.	Not using the LEED - Green Building Rating System, at http://www.usgbc.org/programs/LEED-BScv2.0.pdf , and/or other green building/sustainable design elements?			
b.	Not using materials with the least impact on the environment (e.g. least toxic, recyclable, recycled-content, locally produced, low polluting, long life-cycle, harvested on a sustained yield basis)?			
c.	Not using EPA's Compliance or Procurement Guidelines at http://www.epa.gov/cpg/products.htm ?			
d.	Inefficient use of energy, water and other resources?			
Explain all "yes" and "unknown" answers:				
I. Health and Safety:				
		Yes	No	Unknown
a.	Significant adverse effects on public health or safety?			
b.	Generation of ionizing or non-ionizing radiation?			
c.	Generate air emissions?			
d.	Use of pesticides, including insecticides, herbicides, fungicides or rodenticides?			
e.	Confined space entry?			
f.	Risk of exposure to asbestos or lead containing materials?			
g.	Risk of exposure to asbestos or lead containing materials, disturbance of contaminated soil or ground water?			
h.	Generate industrial waste, water or storm water discharge?			
i.	Use of Class I ozone depleting substances (CFCs, TCA, halons)?			
j.	Acquisition, use, or storage of any toxic or hazardous substance?			
k.	Generation of medical (biohazard), hazardous, toxic, or radiological wastes?			
l.	Use, disturbance, or disposal of PCBs?			
m.	Use of toxic gas?			
Explain all "yes" and "unknown" answers:				
J. Transportation/Circulation:				
		Yes	No	Unknown
a.	Generation of substantial vehicle trips?			
b.	Affect existing parking facilities or demand for new parking?			
c.	Substantial impact upon existing transportation systems?			
d.	Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?			
Explain all "yes" and "unknown" answers:				
K. Services:				
		Yes	No	Unknown
a.	Affect or result in need for new or altered government provided fire protection services?			
b.	Affect or result in need for new or altered government provided security services?			
Explain all "yes" and "unknown" answers:				
L. Environmental Justice:				
		Yes	No	Unknown
a.	Does the project have the potential to create a disproportionate negative impact to low income populations or minority populations?			
Explain if answer is "yes" or "unknown":				
M. Controversy:				
		Yes	No	Unknown
a.	Does the project have the potential to generate public controversy?			
Explain if answer is "yes" or "unknown":				
N. Risk:				
		Yes	No	Unknown
a.	Does the project have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?			
Explain if answer is "yes" or "unknown":				

22.10.3 Appendix C: NEPA Environmental Checklist (Facilities Projects Off-Site)

NEPA Environmental Checklist (Facilities Projects)

Project Name:		Current Date:	
Project Contact:		Project Start Date:	
Building Number and Location:		Phone Number:	
Description of Project:			

Environmental points of contact and additional information on the topics below can be found at <http://q.arc.nasa.gov/qe>.

Environmental Impacts:

"Yes" responses may require the project to prepare an Environmental Assessment or conduct additional studies.

A. Geologic:	Yes	No	Unknown
a. Greater than 10% change in topography or ground surface relief features?			
b. Any increase in wind or water erosion of soils, either on or off site?			
c. Changes in deposition, siltation, or erosion that may modify the wetlands or bay?			

Explain all "yes" and "unknown" answers:

B. Air:	Yes	No	Unknown
a. Substantial air emissions or deterioration of ambient air quality?			
b. The creation of objectionable odors outside of the facility?			
c. Alteration of air movement, moisture, temperature, or any change in climate, locally or regionally?			

Explain all "yes" and "unknown" answers:

C. Water:	Yes	No	Unknown
a. Disturbance of groundwater?			
b. Greater than 10% changes in absorption rates, drainage patterns, or rate and amount of surface runoff?			
c. Alter the course or flow of flood waters?			
d. Alteration of the direction or rate of ground waters?			
e. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?			
f. Activities resulting in changes of greater than 10 percent of Center total potable water use (more than 35,100,000 gallons / year)?			
g. Any construction or other activity in a floodplain or wetland?			

Explain all "yes" and "unknown" answers:

D. Cultural Resources:	Yes	No	Unknown
a. Is the project located in a historic district or effects an existing landmark?			
b. Will the project alter a building that is 50 years or older?			
c. Is the project located in an area of suspected archaeological resources?			

Explain all "yes" and "unknown" answers:

E. Biological Resources:		Yes	No	Unknown
a.	Construction/grading/filling within or adjacent to designated wetlands?.....			
b.	Reduction of the numbers of any rare, or endangered species?.....			
c.	Construction/grading/filling within open space or grasslands areas?.....			
d.	Introduction of new species or plants into an area, or impacts normal replenishment of existing species?.....			
e.	Proposed construction activities in burrowing owl habitat?.....			
f.	Propose new landscaping or modify existing landscaping?.....			
Explain all "yes" and "unknown" answers:				
F. Noise:		Yes	No	Unknown
a.	A noise increase greater than 10% from an existing operation?.....			
b.	Exposure of people to severe noise levels (above 80 dBA)?.....			
c.	Increase existing CNEL noise contours surrounding the airfield or Ames?.....			
Explain all "yes" and "unknown" answers:				
G. Land Use:		Yes	No	Unknown
a.	Substantial alteration of the present or planned land use?.....			
b.	Increase in the rate of use of any natural resource?.....			
c.	Activities resulting in changes of greater than 10 percent of Center energy consumption (15,000,000 KWH of office electricity, 15,000,000 KWH wind tunnel electricity, or 382,000 therms of natural gas)?.....			
d.	Activities resulting in a change in total employment levels greater than 10 percent (More than 620 people)?.....			
Explain all "yes" and "unknown" answers:				
H. Sustainability:		Yes	No	Unknown
a.	Not using the LEED - Green Building Rating System, at http://www.usgbc.org/programs/LEED-RSv2.0.pdf , and/or other green building/sustainable design elements?.....			
Explain all "yes" and "unknown" answers:				
b.	Not using materials with the least impact on the environment (e.g, least toxic, recyclable, recycled-content, locally-produced, low-polluting, long life-cycle, harvested on a sustained yield basis)?.....			
c.	Not using EPA's Comprehensive Procurement Guidelines at http://www.epa.gov/cpg/products.htm ?.....			
d.	Inefficient use of energy, water or other resources?.....			
Explain all "yes" and "unknown" answers:				
I. Health and Safety:		Yes	No	Unknown
a.	Generation of ionizing or non-ionizing radiation?.....			
b.	Generate air emissions?.....			
c.	Use of pesticides, including insecticides, herbicides, fungicides or rodenticides?.....			
d.	Confined space entry?.....			
e.	Risk of exposure to asbestos or lead containing materials?.....			
f.	Result in the exposure or disturbance of contaminated soil or ground water?.....			
g.	Generate industrial waste water or storm water discharge?.....			
h.	Use of Class I ozone depleting substances (CFCs, TCA, halons)?.....			
i.	Acquisition, use, or storage of any toxic or hazardous substance?.....			
j.	Generation of medical (biohazard), hazardous, toxic, or radiological wastes?.....			
k.	Use, disturbance or disposal of PCBs?.....			
Explain all "yes" and "unknown" answers:				

J. Transportation/Circulation:		Yes	No	Unknown
a.	Generation of substantial vehicle trips (over 620 per day)?			
b.	Affect existing parking facilities or demand for new parking?			
c.	Substantial impact upon existing transportation systems?			
d.	Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?			
Explain all "yes" and "unknown" answers:				
K. Services:		Yes	No	Unknown
a.	Affect or result in need for new or altered government-provided fire protection services?			
b.	Affect or result in need for new or altered government-provided security services?			
Explain all "yes" and "unknown" answers:				
L. Environmental Justice:		Yes	No	Unknown
a.	Does the project have the potential to disproportionately affect low income populations or minority populations?			
Explain if answer is "yes" or "unknown":				
M. Controversy:		Yes	No	Unknown
a.	Does the project have the potential to generate public controversy?			
Explain if answer is "yes" or "unknown":				

22.10.4 Appendix D: Record of Environmental Consideration

RECORD OF ENVIRONMENTAL CONSIDERATION

1. Description and location of proposed action:
2. Anticipated date and/or duration of proposed action:
3. It has been determined that the above action: (CHOOSE ONE)
 - a. Is exempt from NEPA requirements under the provisions of (cite superseding law)
 - b. Is adequately covered in the ERD or an existing EA____, EIS____, entitled _____ and dated _____.
 - c. Has no potential environmental impacts as indicated by the results of the Environmental Checklist.
 - d. Qualifies for Categorical Exclusion and has no special circumstances which would suggest a need for an Environmental Assessment. 14 CFR 1216.305d identifies the following activities qualifying for Categorical Exclusions. (Check appropriate exclusion)
 - 1) R&D (or SFCD) activities in space science (e.g., Physics and Astronomy Research and Analysis, Planetary Exploration Mission Operations and Data Analysis) other than specific spacecraft development and flight projects.
 - 2) R&D activities in space and terrestrial applications (e.g., Resource Observations Applied Research and Data Analysis, Technology Utilization) other than specific spacecraft development and flight projects.
 - 3) R&D activities in aeronautics and space technology and energy technology applications (e.g., Research and Technology Base, Systems Technology Programs) other than experimental projects.

- 4) R&D (or SFCDC) activities in space transportation systems engineering and scientific and technical support operations, routine transportation operations and advanced studies.
 - 5) R&D (SFCDC) activities in space tracking and data systems.
 - 6) Facility planning and design (funding)
 - 7) Minor construction of new facilities including rehabilitation, modification, and repair.
 - 8) Continuing operations of a NASA installation at a level of effort, or altered operations, provided the alterations induce only social and/or economic effects but no natural or physical environmental effects.
- e. Will require preparation of an Environmental Assessment or Environmental Impact Statement q.
4. Actions to be coordinated with Code QE:
- o Asbestos samples
 - o Lead samples
 - o Air Quality Permit
 - o Biological Resources
 - o Industrial Waste Water Permit
 - o Hazardous Waste Generation
 - o Historic Building Use
 - o Noise
 - o Hazardous Materials Storage Permit
 - o Other

Environmental Protection Specialist, Code QE

Date

Distribution:

22.10.5 Appendix E: Environmental Assessment Process

Task Description	Responsibility
Submit Draft EA (DEA) Statement of Work to QE	Project/Program Initiator
Identify any additional studies and scoping required	QE
Submit preliminary DEA to QE	Project/Program Initiator
Submit final DEA to QE	Project/Program Initiator
Prepare draft FONSI	QE
Mail FONSI to interested parties	QE
Place notice in newspapers	QE
Place DEA and FONSI in libraries; send copies to NASA HQ	QE
Hold public meeting (if needed)	QE, Project/Program Initiator
Prepare draft response to comments and submit to QE	Project/Program Initiator
Prepare final response to comments	Project/Program Initiator
Prepare final EA	Project/Program Initiator
Prepare final FONSI	QE
FONSI is signed	Center Director
Project can proceed 30 days after FONSI is signed	Project/Program Initiator

22.10.6 Appendix F: Environmental Impact Statement Process

Task Description	Responsibility
Authorization to Proceed (EIS process initiated)	Project/Program Initiator
Develop project and alternatives description	Project/Program Initiator
Finalize scope of Public Outreach Program	Project/Program Initiator
Obtain draft project and alternatives from contractor	Project/Program Initiator
Coordinate Public Scoping Meeting logistics	Project/Program Initiator, QE, DX
Finalize project and alternatives description	Project/Program Initiator
Create scoping meetings Announcement Package	Project/Program Initiator, QE, DX
Conduct informal consultation with U.S. Fish and Wildlife Service	QE, USFWS
Conduct Stakeholders Assessment	Project/Program Initiator, QE, DX
Develop Public Scoping Meeting agendas	Project/Program Initiator, QE, DX (External Affairs)
Publish Notice of Intent (NOI) in <i>Federal Register</i>	NASA HQ, EPA
Publish NOI in San Jose Mercury News	QE
Begin Mandatory 45-day scoping period	
Develop Announcement Package, submit to QE and DX for review	Project/Program Initiator
Develop Mailing List Database	Project/Program Initiator
Develop Project Fact Sheet, submit to QE and DX for review	Project/Program Initiator
Finalize Announcement Package	Project/Program Initiator
Mail Public Scoping Meeting announcements	QE
Submit Draft EIS (DEIS) data sections to EIS preparer	Project/Program Initiator
Informal Scoping Meeting for Ames Resident Agencies (RAs) (if applicable)	Project/Program Initiator, QE, DX
Informal Scoping Meeting for Ames on-site staff (if applicable)	Project/Program Initiator, QE, DX
Informal Scoping Meeting for Santiago Village Mobile Home Park (if applicable)	Project/Program Initiator, QE, DX
First two Public Scoping Meetings	QE, DX, NASA HQ, Project/Program Initiator
Approve EIS document review schedule	NASA HQ
Third Public Scoping meeting	QE, DX, NASA HQ, Project/Program Initiator
Prepare Administrative Draft EIS (ADEIS) and submit to NASA HQ, QE, DX, and others for review	Project/Program Initiator
Prepare revised mitigation timetable	Project/Program Initiator

If applicable, conduct formal consultation with U.S. Fish & Wildlife Service (mandatory 135 days)	Project/Program Initiator, QE, USFWS
Determine mitigation to be included in EIS	Project/Program Initiator, QE
Prepare final screencheck Draft EIS and submit to NASA HQ, QE, DX, and others for review	Project/Program Initiator
NASA HQ Review of DEIS with approval to publish	NASA HQ
Send postcards to EIS mailing list informing public of availability of DEIS	QE
Prepare Public Review DEIS and submit to printer for copies	Project/Program Initiator
Publish Notice of Availability (NOA) of DEIS and public hearing dates	NASA HQ
Submit DEIS to EPA	NASA HQ
Publish DEIS	EPA
Public Review Period (mandatory 45-days)	

If applicable, conduct formal consultation with U.S. Fish & Wildlife Service (mandatory 135 days)	Project/Program Initiator, QE, USFWS
Distribute DEIS	QE, DX
Hold Public Meetings on DEIS	QE, DX, NASA HQ, Project/Program Initiator
Prepare Administrative Final EIS (AFEIS)	Project/Program Initiator
Review and Redline of AFEIS	NASA Ames, NASA HQ
Revise Final EIS (FEIS)	Project/Program Initiator
File FEIS with EPA	NASA HQ
Publish FEIS NOA in San Jose Mercury News, Distribute FEIS	QE
Prepare draft Record of Decision (ROD)	Project/Program Initiator
NASA Ames Management review/concurrence of draft ROD	NASA Ames
Publish EIS NOA	EPA
Mandatory 30-day ROD posting period	EPA
Submit draft ROD to NASA HQ	Project/Program Initiator
Review/Approve draft ROD	NASA HQ
Incorporate NASA HQ comments on ROD	Project/Program Initiator
Sign Final ROD	NASA HQ

22.10.7 Appendix G: Environmental Decision Points

Documentation	Process Start	Critical Completion Points			
		CoF	ROS	R&D/Flight Projects	SFCDC
Environmental Checklist/REC	Initial Concept Proposal	Facilities Requirements Document	Concept or Service Request Submission	Project Definition and Preliminary Concept Funding	Project Definition and Preliminary Concept Funding
EA/FONSI	Draft EA Starts at Preliminary Design	By 100% Design Review	By 100% Design Review	Prior to Expenditure of 10% of Development/ Construction Budget or PDR, whichever comes first ¹	Prior to Expenditure of 10% of Development/ Construction Budget or PDR, whichever comes first ¹
EIS/ROD	DEIS Start at Project/Budget Approval	By 100% Design Review	By 100% Design Review	FEIS: Prior to final decisions made on Design, Development, and Test Evaluation ROD. After CDR	FEIS: Prior to final decisions made on Design, Development, and Test Evaluation ROD. After CDR

¹Development/construction budget includes budget for launch.

CDR = Critical Design Review

PDR = Preliminary Design Review

CoF = Construction of Facilities

PRD = Project Requirements Document

DEIS = Draft Environmental Impact Statement

R&D = Research and Development

FEIS = Final Environmental Impact Statement

REC = Record of Environmental Consideration

ROS = Research Operations and Support

SFCDC = Space Flight, Control and Data Communications

EA = Environmental Assessment

FONSI = Finding of No Significant Impact

EIS = Environmental Impact Statement

ROD = Record of Decision

END OF DOCUMENT