

# New Frontiers Program

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THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

# The National Environmental Policy Act



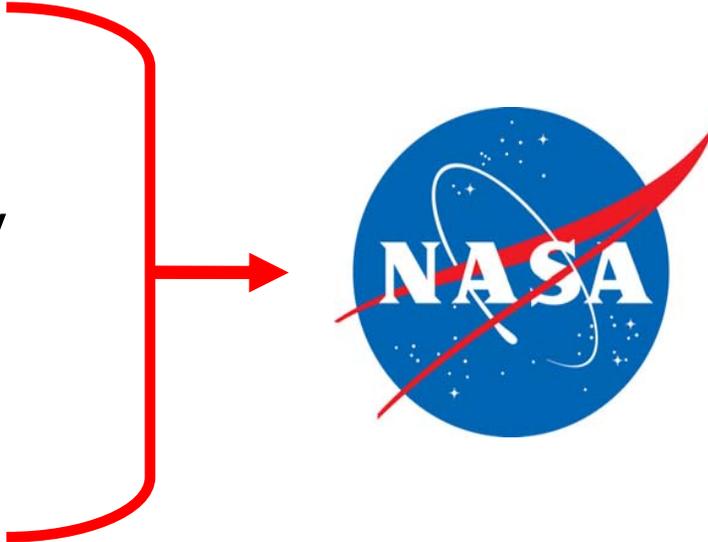
- The National Environmental Policy Act (NEPA) was passed in 1969.
- Statement of national environmental policy for the protection, maintenance, and enhancement of the environment and anticipates current concepts of sustainability
- NEPA objectives:
  1. Prevent, minimize, or mitigate environmental damage
  2. Ensure that Agency decisionmakers take environmental factors into account through the program/project life cycle, beginning with the early planning process

# The Purpose of NEPA?



- To assist Federal agencies
  - In making better decisions
  - And involve outside parties and the general public
- Directs the Responsible Federal Official to prepare a publicly available, statement on major Federal actions significantly affecting the quality of the human environment
- The statement must address:
  - The action's potential environmental impacts
  - The adverse impacts that cannot be avoided
  - Alternatives to the proposed action
- Consider analysis and feedback prior to implementing action

# When is NEPA triggered?

- Any NASA action which may have an impact on the quality of the environment.
  - Includes programs and projects entirely or partially:
    - Funded By
    - Assisted By
    - Conducted By
    - Regulated By
    - Approved By
    - Permitted By
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- Includes Research & Development, Construction of Facilities, Space Flight Activities, and Program Management.



# How is NEPA implemented?

- 40 CFR Parts 1500 – 1508
  - Council on Environmental Quality (CEQ) Regulations for Implementing NEPA
- 14 CFR 1216.3
  - NASA's Procedures for Implementing NEPA
- NPR 8580.1
  - Implementing The National Environmental Policy Act And Executive Order 12114
- NPR 7120.5C
  - NASA Program and Project Management Processes and Requirements
- NPR 7120.5D
  - NASA Space Flight Program and Project Management Requirements
- NPR 8820.2E
  - Facility Project Implementation Guide



# Who is responsible for implementing NEPA?

- The Program Manager / Project Manager
  - Provides leadership, oversight, and resources (funds, contractor support, etc.)
  - With support from:
    - HQ NEPA Program Manager
    - One or More Center Environmental Management Offices (EMO's)
  - Responsible for
    - Appropriate level of NEPA documentation
    - Completing in a timely manner
    - Ensuring no final action is taken until NEPA process is complete
    - Environmental commitments are implemented.



# When is NEPA implemented?

- NPR 7120.5D
  - Program and Project Managers should coordinate early and throughout the project life cycle with mission support organizations at HQ and at Centers (Section 3.2.2)
  - Complete the environmental planning process in Phase B - preliminary design and technology development (Section 4.5.2)
  - Environmental Management Plan
    - Project (Appendix E Section 3.9) - Gate product to move from Phase B (KDP C)
    - Program (Appendix F Section 3.10)
- 42 CFR 1216.304 - Major decision points
  - Completion of an environmental assessment (EA) and the determination as to whether an environmental impact statement (EIS) is required must be made **prior to the decision to proceed** from the conceptual study phase to the detailed planning/definition phase of the proposed action
  - The final EIS should be completed and circulated **prior to the decision to proceed** from the detailed planning/definition phase to the development/construction (or implementation) phase of the proposed action

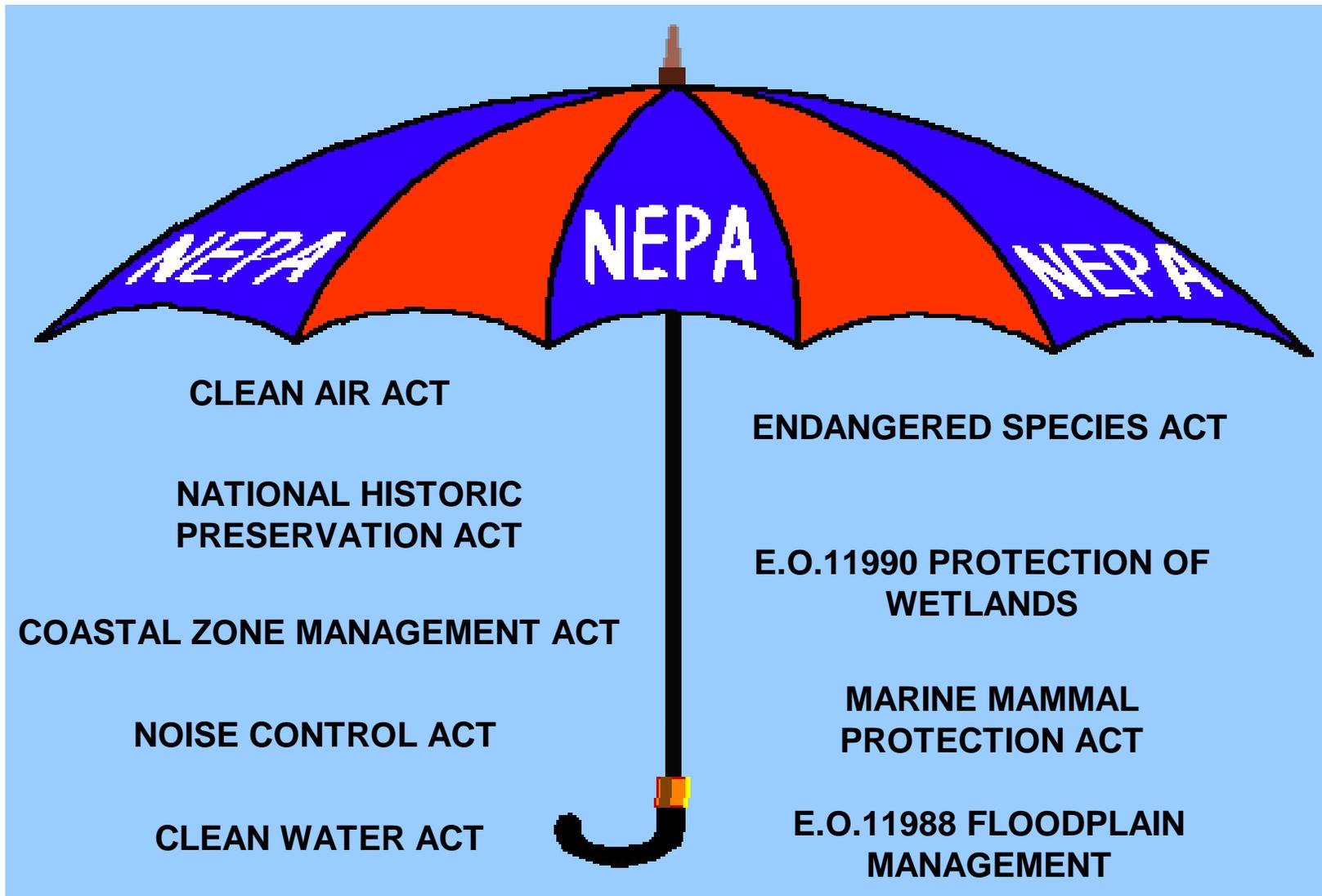


- As a decisionmaking tool, NEPA
  - Begins with the purpose and need for your action.
  - Guards against single-track thinking and premature narrowing of choices by forcing the investigation of the affected environment, public concerns, alternatives, and mitigation.
  - Depends on information from other discipline experts, individuals associated with Federal, State, local, and Tribal governments, and the public.
  - Promotes excellent decisions, not excellent paperwork.



# What Does NEPA Analyze?

- Noise
- Land Use
- Socio-economic Impacts
- Air Quality
- Water Quality
- Wetlands & Watercourses
- Wild & Scenic Rivers
- Floodplains
- Farmlands
- Coastal Zone Management
- Coastal Barriers
- Aesthetics and Visual Impacts
- Solid And Hazardous Waste
- Historic, Architectural, Archaeological and Cultural
- Biotic Communities
- Endangered Species
- Energy Supply and Natural Resources
- Light Emissions
- Construction Impacts
- Surface Transportation
- Environmental Justice
- Cumulative Impacts
- Climate Change





# Levels of NEPA Analysis and Documentation

- **Categorical Exclusion (CatEx)**
  - Actions that do not individually or cumulatively have a significant impact on the human environment.
  - Results in Record of Environmental Consideration (REC) or Preliminary Environmental Survey (PES)
  - Generally take 2– 3 Months and Cost \$1.5K – \$5K
- **Environmental Assessment (EA)**
  - Inform decisionmaker and determine if more detailed study is necessary.
  - Brief, rigorous analysis of the proposed action, No action alternative, and other reasonable alternatives
  - Results in Finding of No Significant Impact (FONSI) or Notice of Intent (NOI) to prepare an EIS
  - Generally take 6-12 months and cost \$35K to \$75K

# Levels of NEPA Analysis and Documentation (cont.)



New Frontiers Program

- Environmental Impact Statement (EIS)
  - Actions with significant potential for environmental impacts
  - Results in Record of Decision
- Are required for specific activities with significant potential impacts including
  - 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 into space
  - Development and operations of **nuclear systems** including reactors and thermal devices used for propulsion and/or power generation
    - - RHU's
  - Generally take 16-24 months and cost \$1 to \$2.5 million



- Consequences
  - Unnecessary environmental harm
  - Increased cost
  - Delay/cancellation
  - Damaged credibility for future projects

***Overall adherence to program/project schedules and budgets may well depend on a manager's attention to and oversight of the environmental analysis progress***

# Questions?



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