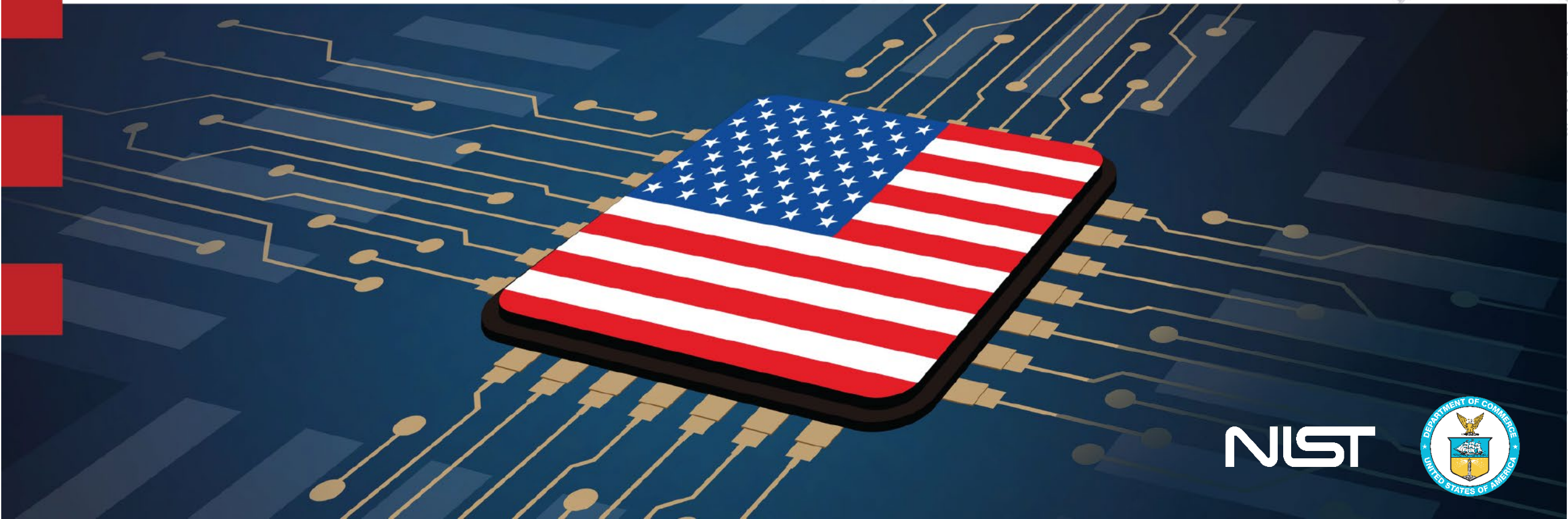
CHIPS for America
Overview of the Environmental Questionnaire

May 11, 2023



Today's CHIPS Program Office Speakers

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TODAY'S AGENDA & OBJECTIVES

Agenda

- CHIPS for America Vision – 5 mins
- Application Process Review – 5 mins
- Deep Dive into Environmental Questionnaire – 45 mins
- Next Steps and Additional Resources – 5 mins

Objectives

Understand:

- Purpose of the Environmental Questionnaire
- Environmental Questionnaire Requirements
- What CPO is looking for in the Environmental Questionnaire
- How to submit an Environmental Questionnaire
- How CPO processes the Environmental Questionnaire

CHIPS for America Vision

Economic Security

The CHIPS Act will strengthen supply chain security and increase economic resilience in critical sectors.

National Security

The CHIPS Act will ensure that the U.S. can manufacture advanced technologies, including secure chips for the U.S. military.

Future Innovation

The CHIPS Act will spur innovation, increase competitiveness, and ensure long-term U.S. leadership in the sector

Vision for Success

Leading-Edge Logic

- ✓ The U.S. will have at least **two new large-scale clusters of leading-edge logic fabs**
- ✓ **U.S.-based engineers** will develop the process technologies underlying the **next gen of logic chips**

Memory

- ✓ U.S.-based fabs will **produce high-volume memory chips on economically competitive terms**
- ✓ **R&D for next-generation memory** technologies critical to supercomputing and other advanced computing applications will be **conducted in the U.S.**

By the end of the decade…

Advanced Packaging

- ✓ The U.S. will be home to **multiple high-volume advanced packaging facilities**
- ✓ The U.S. will be a **global leader in commercial-scale advanced packaging technology**

Current-Generation and Mature

- ✓ The U.S. will have **strategically increased its production capacity** for current-gen and mature chips
- ✓ Chipmakers will also be able to **respond more nimbly** to supply and demand shocks

Application Process

1. Statement of interest (*open to all*)
2. Pre-application (optional) — **Feedback**
3. Full application
4. Due diligence
5. Award preparation

Submissions accepted as of...

Leading-edge	Current-gen, mature-node, and back-end
February 28, 2023	February 28, 2023
March 31, 2023	May 1, 2023
March 31, 2023	June 26, 2023

Program Priorities

Economic and national security objectives

Commercial viability

Financial strength

Technical feasibility and readiness

Workforce development

Broader impacts

CHIPS Environmental Division

The Environmental Division is the team of CHIPS program practitioners who will:

- Ensure that the Department of Commerce **satisfies applicable environmental laws** and requirements in connection with activities that receive funding through the CHIPS Incentives Program
- Work with federal and state agencies, applicants and contractors in an iterative process to ensure **efficient, effective**, and **predictable reviews** that result in **informed and environmentally responsible decisions**

Note: The CHIPS Environmental Division sits within the CHIPS Program Office in the National Institute of Standards and Technology (NIST) at the Department of Commerce.

Role of Environmental Compliance

Environmental Risk is one of four elements of the Technical Feasibility and Readiness program priority

Timely satisfaction of **environmental review and permitting requirements is critical to the success** of the CHIPS program.

ENVIRONMENTAL QUESTIONNAIRE PURPOSE

The EQ will help the Environmental Division:

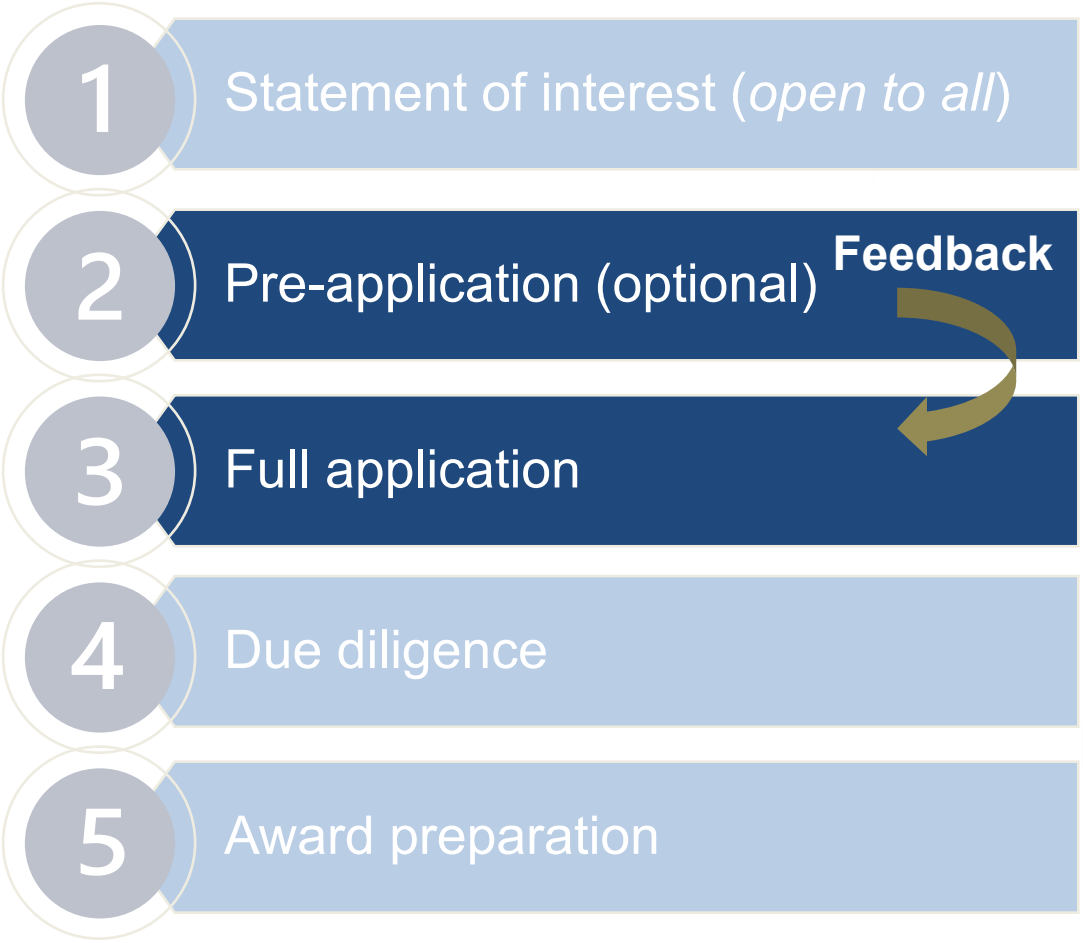
- Assess the environmental risk and merits associated with each application, and support applicants in obtaining relevant permits and authorizations.

- Fulfill CPO's responsibilities under the:
  - National Environmental Policy Act
  - National Historic Preservation Act
  - Endangered Species Act
  - Executive Orders

- It may also supplement or provide additional context to the "Climate and Environmental Responsibility Plan" required under the NOFO.

The Department intends to prioritize applications that demonstrate a clear path to meeting permitting requirements in a timely manner.

Completing the Environmental Questionnaire is the first step



The Environmental Questionnaire is a required part of the application process:

- With pre-application if applicant chooses to submit the optional pre-application
- With full application

ENVIRONMENTAL QUESTIONNAIRE REQUIREMENTS

- When submitting the EQ, applicants should **ONLY provide as much detail and information as is currently available**
  - If certain questions are not applicable, please provide a brief supporting statement explaining why
- Applicants may use a **single EQ for the entire application (for multiple projects) OR submit an EQ for each project –** whichever approach is easier
- After reviewing the submitted EQ, the Environmental Division will work with applicants to determine what additional information is necessary and a schedule for submitting that information to CPO

Environmental Questionnaire Deep Dive

QUESTION A. PROJECT DESCRIPTION

A Project Description

Please provide a brief summary of the proposed project(s) and each of the activities included in the proposed project(s), including the project schedule and a summary of any manufacturing process that will take place at the facility associated with the project.

1. Describe the "project" including all of the applicant's activities within a specific location (*e.g., construction of new fab, modernization and expansion of existing fab, new equipment purchase*).

2. Identify any eligible activities within the "project" that the applicant wants CPO to consider for funding. This could include one or more of the activities described within the applicant's project.

3. Explain how each activity, identified in Step 2, is related to the applicant's project, and to other activities within the project.

The applicant's project description is critical to inform CPO's NEPA process.

QUESTIONS B & C

B **Project Site/Affected Environment**
Describe the location's address or coordinates, and the names of facilities.

C **Resource Consumption Rates and Effluent Streams and Impacts**
Describe all material inputs and outputs, including, for example, but not limited to, material resources, water consumption, electricity use.

What we're looking for

- Project Site/Affected Environment
  - Nature of the site and current conditions
  - Ownership of site and surrounding lands
  - Existing facilities or buildings, and whether they would be demolished, modified, or reused
  - New facilities or buildings proposed for the site
  - **Whether work on the facility has already begun, or will begin before a funding decision is made**

- Resource Consumption Rates and Effluent Emissions Streams and Impacts

QUESTION D. TRIBAL, HISTORIC, AND CULTURAL RESOURCES

D Tribal, Historic, and Cultural Resources

- Indicate whether the project site, or any adjoining lands, are owned by or held in trust for any federally recognized Indian Tribes, or are located within the exterior boundaries of a reservation. Describe any known resources of tribal interest, or any known concerns raised by any federally recognized Indian Tribes related to the project.

- Identify any known historic, archeological, or cultural resources within or adjacent to the project site, including historic properties that are listed on or eligible for listing on the National Register of Historic Places, or considered to be of local or state significance. Discuss the potential impacts of the project on any such resources within or adjacent to the project site, and any measures that have been identified that might mitigate these impacts.

This will help CPO fulfill our responsibility for:

- Government-to-government consultation with affected Tribes
- Compliance with the National Historic Preservation Act (NHPA)

QUESTIONS E, F, G & H

What we're looking for

- These questions will help us understand the surrounding environment and the resources that could be impacted
  - E. Project Setting
  - F. Vegetation and Wildlife Resources
  - G. Conservation Areas
  - H. Coastal Zones and Navigable Waters

QUESTION I. WETLANDS

I Wetlands

Identify any wetlands within or adjacent to the proposed project location

What we're looking for

- If the proposed project may impact wetlands, streams, or navigable waters, the applicant should consult with the Army Corps of Engineers to determine whether a section 404 Clean Water Act permit is needed. *This does not need to be completed prior to submitting the EQ.*

- When applying for a permit, an permittee must first show that steps have been taken to avoid impacts to wetlands, streams and other aquatic resources; that potential impacts have been minimized; and all remaining unavoidable impacts will be compensated or offset.

QUESTION J. FLOODPLAINS

J Floodplains
State whether the proposed project is located within a mapped 100- or 500-year floodplain, and provide a FEMA floodplain map.

What we're looking for

- Before funding a project, CPO must determine whether its action will result in impacts to floodplains.
- Applicants should identify whether the proposed project occurs in a floodplain and consider alternatives to activities within floodplains. The applicant should also identify measures to avoid, minimize, and mitigate the risk of flood loss. When proposing a project, applicants should also take into account changing flood hazards due to climate change and other processes (e.g., land use).
- See Executive Order 11988 Floodplain Management, as amended by Executive Order 13690 Establishing a Federal Flood Risk Management Standards and a Process For Further Soliciting and Considering Stakeholder Input.

QUESTION K. ENDANGERED SPECIES

K Endangered Species
Identify any threatened, endangered, and candidate species located in or near the proposed project location, and any potential or existing habitat, including critical habitat designations in the project area.

What we're looking for

- The Endangered Species Act (ESA) requires CPO to assess the impact of proposed actions on Federally listed threatened and endangered species and their critical habitat. CPO must consult with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service if endangered species are affected by a project
- Applicants may also need to obtain an ESA Incidental Take Permit if the applicant's activities may result in "taking" of endangered or threatened animal species.

QUESTION L. LAND USE AND ZONING

L Land Use and Zoning

Describe the present formal zoning designation and current land use of the proposed project site and adjacent land parcels. Identify any agricultural land parcels designated as “prime/unique agriculture lands” by the U.S. Department of Agriculture (USDA),

What we're looking for

- The Farmland Protection Policy Act is intended to minimize the impact Federal programs (including financial assistance) have on the unnecessary and irreversible conversion of farmland to nonagricultural uses.
- It assures that to the extent possible federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland.

QUESTIONS M-Q

- M **Solid Waste Management**
- N **Hazardous or Toxic Substances**
- O **Impacts to Water Quality/Water Resources**
- P **Water Supply and Distribution System**
- Q **Wastewater Collection and Treatment Facilities**

What we're looking for

- These questions will help CPO with our NEPA review, and will also help CPO work with the applicant to determine what other environmental permits may be necessary. For example, permits may be required under the:
  - Resource Conservation and Recovery Act (RCRA)
  - Clean Water Act (CWA)

QUESTION R. ENVIRONMENTAL JUSTICE

R Environmental Justice & Socioeconomics

Identify whether the proposed project would be in or near disadvantaged communities that are overburdened or underserved.

What we're looking for

- Executive Order (E.O.) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs each Federal agency to “make achieving environmental justice part of its mission."
- CPO will consider potential impacts to communities with environmental justice concerns.
- Applicants should consider whether proposed projects are located in or near disadvantaged communities, and may directly engage with potentially affected communities to develop measures to avoid, minimize and mitigate impacts. CPO may also engage with these communities.

QUESTIONS S-W

- S **Transportation (Streets, Traffic and Parking)**
- T **Air Quality**
- U **Greenhouse Gases and their Environmental Effects**
- V **Noise**
- W **Health and Safety**

What we're looking for

- The responses to these questions will assist us with our NEPA review
- It will also help us to determine whether a Clean Air Act (CAA) permit or other permits, likely local, will be required and to assist applicants with the permitting process
- Finally, the section on GHGs will assist with review of the application and evaluation of the applicant's Climate and Environmental Responsibility Plan. Applicants are expected to design their projects to minimize the potential for adverse impacts on the environment and the local community, including communities with environmental justice concerns.

QUESTION X. PERMITTING

X

Permits and Other Government Agency Involvement

Is any Federal agency other than NIST involved in any aspect of this project? Identify any Federal, Tribal, State, or local environmental permits, plans or reviews needed for the project and the status of any such permits. Attach copies of any such permits or permit applications.

What we're looking for

- Helps us understand the current status of permits
- Helps us know what other federal & state agencies we need to coordinate with
- Helps us to understand the permitting timeline

Permit or other requirement	Agency	Applicability	Permit Status

QUESTIONS Y & Z

Y Public Notification / Controversy

Provide evidence of the community's awareness of the project, such as newspaper articles or public notification and/or public meetings, as applicable. Identify State, Tribal, or local government agencies that will have oversight or interest in the project.

Z Environmental Experience and Approach

Describe any experience in addressing and resolving environmental concerns during the performance of past projects of similar size and complexity including the obtaining of necessary permits.

What we're looking for

- These final questions will help with both our NEPA review and with assisting applicants in conducting community outreach and involving the public in proposed projects.
- We will also get a better understanding of where applicants may need targeted support

HOW CPO PROCESSES THE ENVIRONMENTAL QUESTIONNAIRE

- When first received, the EQ will be reviewed for completeness.
- We will work with the applicant to obtain any information that we believe is needed but not yet provided based on the proposed project.
- The EQ will be used by CPO to fully scope the environmental obligations of both CPO and the applicant.
- Ongoing engagement with the applicant and continued supplementation by the applicant will be the foundation and support for all permits and NEPA review.

Meeting with the CHIPS Environmental Division

- In most instances, applicants may request a meeting with the Environmental Division after they have submitted an Environmental Questionnaire and the Environmental Division has had an opportunity to review it.

- In limited instances, the Environmental Division will meet with applicants prior to submission of its Environmental Questionnaire, so long as applicants:
  - ❑ File a Statement of Interest
  - ❑ Review open Notices of Funding Opportunity (NOFOs) and confirm that it is eligible to apply for CHIPS funding now; and
  - ❑ Require support with Clean Air Act (CAA) or Clean Water Act (CWA) permit applications OR have questions related to NEPA environmental review documents that it is drafting.

Next Steps

SUMMARY: ENVIRONMENTAL REVIEW FOR THE FIRST FUNDING OPPORTUNITY

1. The CPO **Environmental Questionnaire is mandatory** for all applications

2. Applicants must submit EQ with pre-application (if filed) and application:
   - Leading-edge applicants should submit EQ with their pre-application or full application
   - Current generation and mature applicants are strongly encouraged to submit pre-applications, including an EQ

3. The Environmental Division will review the EQ, identify any gaps, and request information.
   - In parallel, if, through the EQ, applicants identify additional permitting needs or areas for further study, consider acting on those priority areas as soon as possible.

4. Submission of the EQ will initiate an iterative process, with meeting(s) between applicants and the Environmental Division as required.

The Department intends to prioritize applications that demonstrate a clear path to meeting permitting requirements in a timely manner.

HOW TO SUBMIT A PRE-APPLICATION

Pre-application is strongly recommended for current-generation, mature-node, or back-end production facilities

Leading edge applicants' submission window opened March 31, 2023

Earliest pre-application submission for current-generation, mature-node or back-end production facilities May 1, 2023

The pre-application may be submitted a minimum of 21 days following the submission of a Statement of Interest (SOI)

Submit the pre-application through applications.chips.gov

Additional Resources

- Visit CHIPS.gov for additional resources
- Join our mailing list
- Contact us
  - askchips@chips.gov – general inquiries
  - apply@chips.gov – application-related inquiries

Question and Answers

Frequently Asked Questions

How should applicants prepare for environmental review under National Environmental Policy Act (NEPA)?

The first step for potential applicants is to submit an environmental questionnaire as part of a pre- or full application. The environmental questionnaire will assist the CHIPS Program Office's Environmental Division in assessing the likely level of NEPA review that will be required for the proposed project and allows the team to work with the applicant to ensure that all required environmental information is available as early as possible, which can help expedite the NEPA review process for potentially successful applications.

Will the CHIPS Program Office support applicants in the environmental review process?

The CHIPS Program Office's Environmental Division will work with applicants and their third-party contractors in an iterative process to help ensure smooth and expeditious completion of the NEPA review process.

Frequently Asked Questions

What are the factors applicants should consider in choosing a contractor?

- The consultant's track record of success in completing EAs and EISs for federal agencies.
- The consultant's previous work on projects related to construction, expansion, and/or modification of large manufacturing facilities.
- The consultant's work on projects related to operation of semiconductor manufacturing.
- The consultant's technical and scientific experience with environmental issues.

Do all the questions in the EQ have to be answered before submission?

No, applicants are asked to respond to each question according to the information that is available at the time the Environmental Questionnaire is being completed. The more comprehensive the answers, the less time is spent later; however, CPO does not ask you to delay responding to the EQ if information is not readily available.

Frequently Asked Questions

What is the relationship of the Environmental Questionnaire (EQ) to NEPA review documents such as the Environmental Assessment (EA)?

The EQ is the tool the CHIPS Environmental Division will use to determine the appropriate level of environmental review under NEPA needed for the proposed project. In assessing the appropriate level of NEPA review, CPO will look to 40 CFR 1501.3(a).

The EQ has 26 questions related to 26 environmental categories. Does an EA or EIS address additional categories of information?

The 26 questions in the EQ are a roadmap for understanding typical areas of environmental impact associated with construction projects. An EA or EIS may include additional information, such as more detailed information about site-specific impacts, a description of the purpose and need for the proposed project, and a discussion of a reasonable range of alternatives that can accomplish the purpose and need of the proposed action.

Thank you