ENVIRONMENTAL OFFICE
NAVAL TRAINING CENTER
33502 DECATUR ROAD, SUITE 120
SAN DIEGO, CA 92133-1449

RESTORATION ADVISORY BOARD

AGENDA

DATE:	**Tuesday, 28 January 1997**
LOCATION:	**NAVAL TRAINING CENTER, PUBLIC AFFAIRS OFFICE (PAO) AUDITORIUM, BUILDING #201** (Enter **NTC Gate 3** at Rosecrans and Curtis streets; proceed 2 1/2 blocks and Building 201 is on the left)
	*****NOTE: GATE 1 IS CLOSED*****
6:30 - 6:40	WELCOME AND INTRODUCTIONS BRIEF OVERVIEW - Agenda and Meeting Objectives MINUTES APPROVAL - 3 December 1996 FUTURE MEETINGS SCHEDULE
6:40 - 6:55	GENERAL SITE STATUS UPDATE
6:55 - 7:25	PRESENTATION BY SPECIAL GUEST, MR. MICHAEL POUND OF SOUTHWEST DIVISION - RISK BASED CORRECTIVE ACTION (RBCA)
7:25 - 7:40	STATUS UPDATE ON LEAD-BASED PAINT AND ASBESTOS
7:40 - 7:50	DOCUMENT REVIEW - BRAC CLEANUP PLAN (BCP), UPDATE NO. 3
7:50 - 8:20	PRESENTATION BY SPECIAL GUEST, MR. GUNTHER MOSKAT OF CAL/EPA DTSC - "UNDERSTANDING THE CEQA PROCESS"
8:20 - 8:30	SUBCOMMITTEE UPDATE BY TED OLSON
8:30 - 8:45	NTC REUSE STATUS REPORT BY LCDR ROBERT D. BAKER, NTC BASE TRANSITION COORDINATOR
8:45 - 9:00	PUBLIC QUESTION AND ANSWER/COMMENT PERIOD
9:00	ADJOURN

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Subject: RESTORATION ADVISORY BOARD MEETING MINUTES

The 36th Restoration Advisory Board (RAB) meeting was held on **Tuesday, 28 January 1997**, at the Naval Training Center (NTC), PAO Auditorium, Building #201, from 6:45 until 9:16 PM. Mr. Keith Forman, RAB Navy Co-Chair and Base Realignment and Closure (BRAC) Environmental Coordinator, called the meeting to order. Before providing an overview of the agenda and conducting RAB business, he introduced the evening's speakers as both had early flights out of town.

PRESENTATION: RISK BASED CORRECTIVE ACTION (RBCA)

Mr. Forman introduced Mr. Michael Pound, Remedial Technical Manager from the Navy's Southwest Division, to present an overview of Risk Based Corrective Action, or RBCA [pronounced like the name, Rebecca]. RBCA is a method for evaluating whether remediation at a site is necessary based on potential health risks. Natural attenuation is one option under RBCA and was the focus of his presentation. Mr. Pound used overheads to present this material.

Natural attenuation can be defined as biodegradation, dispersion, dilution, sorption, volatilization, and/or chemical and biochemical stabilization of contaminants to reduce toxicity, mobility, or volumes of contaminants to levels which are protective of human health and the environment. Mr. Pound presented the process of evaluating whether natural attenuation is a viable option for a site. He discussed the benefits and drawbacks of natural attenuation, the data needed in order to assess its viability, and the models used to back it up. Mr. Pound said that he could provide a detailed presentation on the process of natural attenuation if the RAB so desired. He provided his telephone number and e-mail address. They are as follows: telephone (619) 532-1152; e-mail mgpound@efdwest.navfac.navy.mil. Mr. Forman said that a subcommittee meeting could be held to discuss RBCA and natural attenuation if needed. He thanked Mr. Pound for his presentation.

PRESENTATION: UNDERSTANDING THE CEQA PROCESS

Mr. Forman introduced Mr. Eric Maher, Senior Hazardous Substances Scientist from the California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC). He said that Mr. Maher would provide an overview of the California Environmental Quality Act (CEQA) and the process it mandates. Mr. Maher's role at

DTSC is to provide internal review for the department's CEQA projects. Overheads and handouts accompanied Mr. Maher's presentation.

Mr. Maher presented the, "who, what, and why," of the CEQA process. CEQA is California's most comprehensive environmental protection law, examining all environmental aspects of a project from early planning through implementation. The objectives of CEQA are to disclose potential impacts to the environment and prevent environmental damage. CEQA involves extensive public participation and intergovernmental coordination. Mr. Maher discussed responsible and lead agencies, their roles, related compliance issues, and a brief description of the steps involved, including the various comment periods. He concluded his presentation with a comparison of CEQA and the National Environmental Protection Act, or NEPA. Mr. Forman thanked Mr. Maher for his informative presentation. Mr. Maher provided business cards should RAB members have further questions. His telephone number is (916) 324-8550.

WELCOME AND INTRODUCTIONS

Following the special presentations, Mr. Forman officially welcomed everyone to the RAB meeting and asked that all those in attendance introduce themselves. The evening's business was then addressed and is presented below.

Business Items

Approval of Minutes - A motion was made, seconded, and carried to approve the minutes from the 3 December 1996 meeting.

Future Meeting Schedule - The next RAB meeting was scheduled for **25 March 1997**. The discussion of when to schedule the next meeting brought up two related topics. One of the newer RAB members felt that the RAB would get more out of the meetings if they were held more often. This was discussed at length. The purpose of the RAB is to review and provide input on technical documents prepared for the cleanup of NTC. The need for document review has lessened and so have the RAB meetings. It was decided that RAB meetings will continue to be held bi-monthly, however, more RAB subcommittee meetings will be held to provide information on various technical topics as needed.

The second topic was the question of how long the RAB will exist. Mr. Forman explained that this is up to the RAB members. However, while formal base closure is scheduled for 30 April 1997, cleanup will continue much longer. The RAB will not dissolve simply because the base is closed. It was decided to discuss this question again next year.

Documents for Review - The Draft Site Assessment Report for the Steam Tunnels (POI 38) will be the next document available for review. A sign-up sheet for this document was passed around the room. Several RAB members expressed interest in receiving copies of the comments and responses of other RAB members on this and previous documents. Comments and responses will now be made available to all members.

General Site Status Update - Mr. Forman briefly outlined the status of each Installation Restoration Program site, with particular attention to Site 1, the Inactive Landfill, and the Points of Interest (POIs). The Engineering Evaluation and Cost Analysis (EE/CA) for Site 1 was approved by regulators, and the removal design for the soil cap is underway. The site will now undergo the CEQA process. Additionally, a new concept is being considered which would allow the transfer of Site 1 to the Port Authority and the U.S. Fish and Wildlife Service without completing the removal action designed for open space reuse. This would allow the Port Authority to customize a removal action to meet its own reuse plans. Should this happen, the decision process, including public input, would again be required. This would save taxpayers the cost of performing two removal actions at the same site.

Mr. Forman noted that he added the POIs to his site status update sheet. Only 18 POIs remain out of the original 93. Any new Installation Restoration Program sites will come from the upcoming final Site Assessment/Extended Site Assessment Report for the 18 POIs. Mr. Forman felt it would be beneficial to know the history of the POIs should any become formal sites.

UPDATE: NTC REUSE PLANNING

Mr. Forman introduced Lieutenant Commander Bob Baker, NTC Base Transition Coordinator, to present an update on the status of the NTC reuse planning effort. LCDR Baker explained that the draft Reuse Plan was forwarded to the Department of Housing and Urban Development and the Secretary of the Navy on 5 December 1996. Presently, the City of San Diego has begun interim leasing of certain "clean" parcels of NTC. This allows for rapid reuse of the property (no "down time") and saves the cost of maintenance required at bases in caretaker status. Among others, buildings currently leased include the child care center, classrooms, and several warehouses.

Mr. Ted Olson, RAB Community Co-Chair, added that the City of San Diego has been fielding a lot of inquiries from different recreational organizations which are interested in coming in and managing some of the existing facilities on NTC, such as the bowling alley. The golf course is a good example of this process.

BRAC CLEANUP PLAN UPDATE NO. 3/LEAD-BASED PAINT AND ASBESTOS

Mr. Forman thanked the RAB members that provided their comments on the draft BRAC Cleanup Plan (BCP) Update No. 3 this evening. He reminded the RAB that comments are due 31 January 1997 and that it is the one document with a built-in due date. The final document is required to be forwarded to the Chief of Naval Operations Command no later than 1 March 1997. This update includes two full-disclosure items: lead-based paint (LBP) and asbestos. New to the BCP format, Update No. 3 includes an inventory of buildings likely to have LBP. Mr. Forman explained the Department of Defense Policy Memorandum No. 18 which provides guidance for BRAC bases for evaluating the presence of LBP. LBP was banned in 1976, and this guidance uses 1978 as the cut-off date in order to consider paint which may have been stored and used later. At NTC, the conservative cut-off date of 1980 was used. Residential housing on the base must be inspected for LBP and LBP hazards if they were constructed before 1960. Four residential units, known as quarters A through D, fit into this category. An LBP warning statement must appear in the final Finding of Suitability to Transfer.

A four-phase asbestos survey has been completed and abatement will be completed in May 1997. A written report on this will be provided by Public Works Center a month after completion. Cal/EPA DTSC concurs with this process.

UPDATE: RAB MEMBERSHIP SUBCOMMITTEE

Mr. Olson explained that the Membership Subcommittee meeting had been canceled. He asked that subcommittee members stay after the RAB meeting to set up a subcommittee meeting for next month. His goal is to develop a flier to distribute at institutions such as the University of California at San Diego Extension and San Diego State University. He said that he called three individuals who had submitted applications to the RAB. Two said they would try to attend tonight, but did not, and the other was no longer available on Tuesday evenings. He invited all RAB members to attend the subcommittee meeting or inform him of any ideas they may have on recruiting new members. RAB member Mr. Darrell H. Johnson noted that he has also been trying to recruit a new member.

This discussion brought up the topic of technical review subcommittee meetings. It was decided that meetings are needed to discuss the Site Assessment/Extended Site Assessment Report for the 18 POIs and the draft Site Assessment Report for the Steam Tunnels (POI 38). These will be set up and announced at a later date. Mr. Forman and/or Ms. Content Arnold, Remedial Project Manager from Southwest Division, will attend these meetings as necessary.

There were no questions or comments from the public, and Mr. Forman adjourned the meeting at 9:16 p.m.

Remediation by Natural Attenuation

NTC San Diego RAB
Meeting
28 January 1997

OBJECTIVE

PROVIDE AN OVERVIEW OF THE PROCESS USED TO DETERMINE IF REMEDIATION BY NATURAL ATTENUATION IS VIABLE OPTION

Definition of Natural Attenuation

"The Biodegradation, dispersion, dilution, sorption, volatilization, and/or chemical and biochemical stabilization of contaminants to effectively reduce contaminant toxicity, mobility, or volume to levels that are protective of human health and the environment."

source: US EPA ORD and OSWER

Remediation by Natural Attenuation

- "New" Innovative Remedial Approach in Toolbox of Technologies
- Used to Remediate Organic Contaminants in the Subsurface and Dissolved in Groundwater
- Relies on Dispersion, Dilution, Sorption, and Biodegradation

Biodegradation Pathways

- Numerous Researchers Have Shown that BTEX Biodegrades Via:
  - Aerobic Respiration
  - Denitrification
  - Manganese (IV) Reduction
  - Iron (III) Reduction
  - Sulfate Reduction
  - Methanogenesis

Benefits of Remediation by Natural Attenuation

- Complete Mineralization of Compounds to Innocuous Products
- Not Just Transferring Compounds to Another Phase or Location
- Passive Technique - Allows Continuing Use of Existing Infrastructure
- Cost Effective - More Funds for Problematic Sites

Potential Drawbacks of Remediation by Natural Attenuation

- Subject to Natural and Man-made Changes in Local Hydrogeologic Conditions
- Aquifer Variability May Complicate Site Characterization
- Time Frame for Completion May Be Prohibitively Long

Site Characterization

Adequate Site Characterization is the Single Most Important Step in Demonstrating the Feasibility of Natural Attenuation

Define Extent of Contamination

- Define Lateral and Vertical Extent and Subsurface Distribution of NAPL and Dissolved Contaminants
- Total Mass of Contaminants in the Subsurface
- If NAPL is Present, Determine Mass Fraction of BTEX Compounds for use in Partitioning Models

Groundwater Analytical Protocol

- Aromatic Hydrocarbons
- Dissolved Oxygen
- Nitrate
- Ferrous Iron
- Sulfate
- Methane
- Redox Potential
- Alkalinity
- pH
- Compounds Required for Regulatory Compliance

Three Lines of Evidence Used to Document Natural Attenuation

1) Historical Database Showing Stabilization and/or Loss of Contaminant Mass Over Time

2) Contaminant and Geochemical Analytical Data

3) Microbiological Laboratory Data

Document Occurrence of Natural Attenuation

- Use at Least Two of the Three Lines of Evidence (Preferably First Two Lines)
- Historical Database Showing Plume Stabilization and/or Loss of Contaminant Mass Over Time
- Contaminant and Geochemical Analytical Data
- Microbiological Laboratory Data (Difficult to Perform, Seldom Done

Documented Loss of Contaminants at the Field Scale

- Statistically Significant Historical Database Showing Stable and/or Decreasing Concentrations of Contaminants Over Time
- Groundwater Plume Stable or Decreasing

Relationship Between Contaminant and Geochemical Data

Areas with Elevated Contaminant Concentrations Should/Will Show Elevated Metabolic Byproduct Concentrations and Depleted Electron Acceptor Concentrations

Contaminant and Geochemical Data Relationships

- Areas with Elevated BTEX Should Show:
  Depleted Dissolved Oxygen Concentrations
  Depleted Nitrate Concentrations
  Depleted Sulfate Concentrations
  Elevated Iron (II) Concentrations
  Elevated Methane Concentrations
  Elevated Alkalinity (as $CaCO_3$)

Favorable Results, What Next?

If the Natural Attenuation Evaluation Determines the Site is Being Remediated by Natural Attenuation, The Next Step is to Determine if Remediation by Natural Attenuation Will Be Protective of Human Health and the Environment. This can be done through modeling.

Why Are Models Used in Natural Attenuation Evaluations?

- To Evaluate Potential Present and Future Exposure at a Site
- To Determine if a Plume Will Migrate Beyond the Site Boundary
- To Predict How Long It Will Take to Achieve Site Remediation
- To Help Design a Monitoring System

Modeling

- Use Conservative But Realistic Input Parameters
- Only as Good as the Original Data
- When Collecting Field Data Know What Data Is Necessary for the Model Inputs

Prepare Long-term Monitoring Plan

- Site Point-of-Compliance Wells
- Site Long-term Monitoring Wells
- Specify Sampling Frequency and Analytical Protocol

Present Findings of Evaluation

- Prepare Comprehensive Report
- Use Conservative but Realistic Assumptions
- Reach Agreement on Monitoring Strategy
- Goal is to Ensure Protection of Human Health and the Environment

Conclusions

- Determination is Site Specific
- Site Characterization Must Be Geared Toward Collecting the Proper Data
- Data Must Support Natural Attenuation (Takes Time)
- Burden of Proof on the Proponent
- Can Be Scientifically Supported

28 January 1997

NAVAL TRAINING CENTER SAN DIEGO
GENERAL SITE STATUS

Site 1: Inactive Landfill

- Regulators approved the Final Engineering Evaluation/Cost Analysis (EE/CA). Cal-EPA will now begin the California Environmental Quality Act (CEQA) process and deliver a Negative Declaration decision document.

- The Removal Design (RD) -- the actual engineering of the soil cap for the Inactive Landfill -- is underway.

- Currently on schedule to begin the Removal Action (RA) immediately after the close of the California Least Tern nesting season in mid-Spetmeber 97.

- Concurrently, we are exploring the possibility of using the "early transfer authority" in Section 334 of the 1997 Defense Authorization Act (DAA). This new concept may allow us to transfer the site to the Port Authority/U.S. Fish & Wildlife without completing the removal action. This may be beneficial, allowing the transferee to customize their Removal Action to meet potential airport expansion plans (their future reuse plan).

Site 2: Bldg 227 UST

- Regulator concurrence for "no further action."

Site 3: NEX Auto Service Center UST

- Site will transfer to Marine Corps Recruit Depot on 30 April 1997.

Site 4: Former Document Incinerator

- Regulator concurrence for "no further action."

Site 5: Former Fire Fighter Trainer

- Site will transfer to FLTASW on 01 Feb 1997.

Site 6: Golf Course Maintenance Shop

- Regulator concurrence for "no further action."

Site 7: Bldg 49/50A UST

- Regulator concurrence for "no further action."

Site 8: Bldg 368 UST

- Draft Site Assessment (SA) is undergoing regulator review.

Site 9: Bldg 196 UST

- Regulator concurrence for "no further action."

Site 10: Former Auto Hobby Shop

- Remedial action (involving excavation of contaminated soil and restoration of the surface area) is complete.
- Draft Closure Report is undergoing regulator review.

Site 11: Former NEX Dry Cleaners UST

- Vapor Extraction System continues to operate and recover product; as expected, per-day recovery is decreasing over time.
- Draft Corrective Action Plan (CAP) is undergoing regulator review.

Site 12: Boat Channel Sediment Study

- Sediment characterization study in 1996 determined a need for further investigation.
- A Remedial Investigation (RI) workplan is due out for RAB/Regulator review in April 1997.

Site 13: Bldg 508 UST

- Site will transfer to Marine Corps Recruit Depot on 30 April 1997.

Site14: Tennis Court USTs

- Site will transfer to FLTASW on 01 Feb 1997.

Points of Interest

POI 38: NTC Steam Tunnels

- Phase III fieldwork completed; Draft Site Assessment Report due out 21 February.

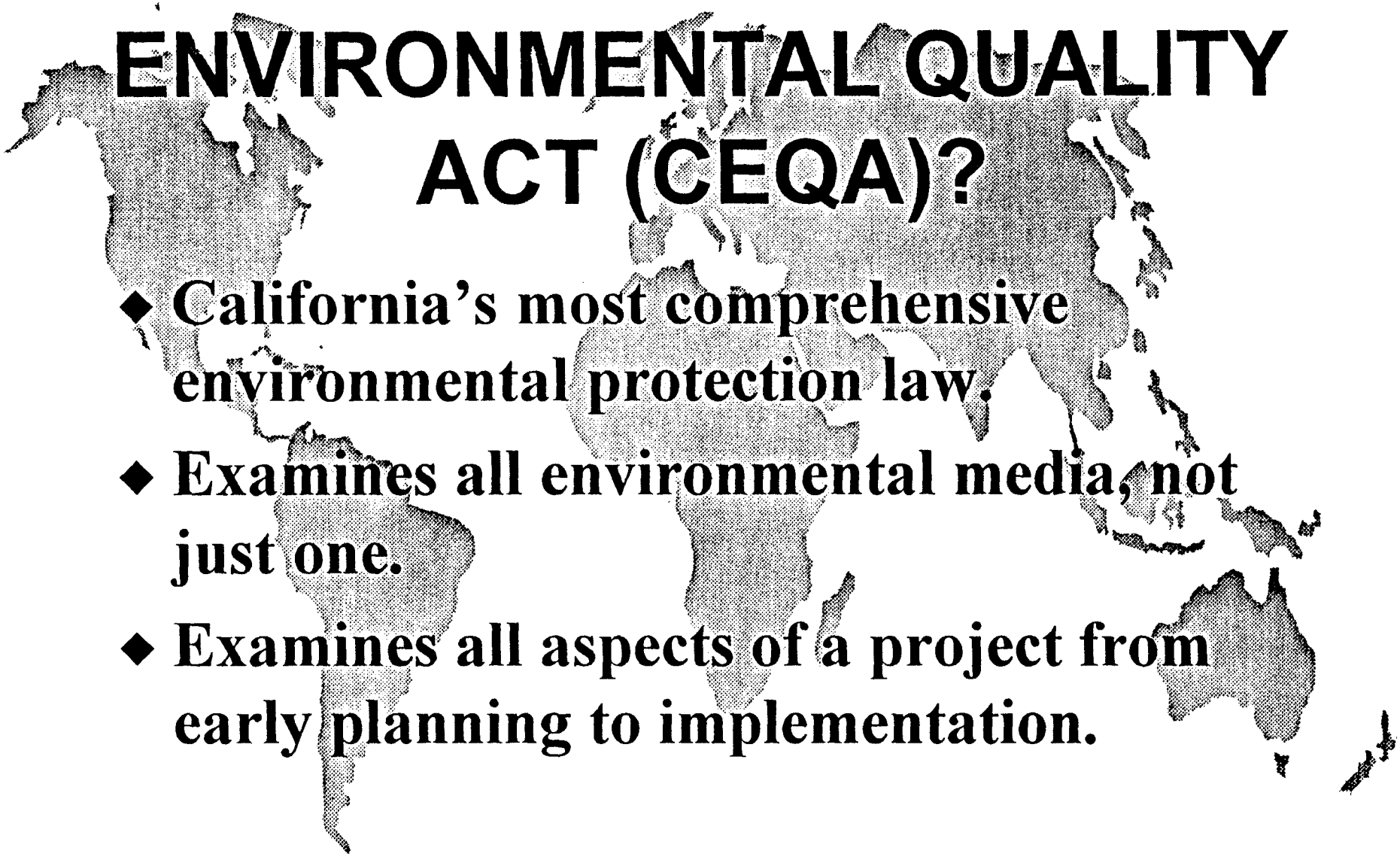
POI 93: Vertical Steel Structure Near Bldg 49/50A

- Pesticides found below project threshold limits in soil, non-detect in groundwater
- Attempting to trace the origin of the pipe leading to the steel structure during Phase II of the Extened Site Assessment on the POIs; historical research did not determine the extent/use of the structure.

Site Assessment / Extended Site Assessment on 18 POIs

- Phase I fieldwork completed in early January. Reviewing data to determine Phase II sampling to begin 10 February.
- Draft Site Assessment/Extended Site Assessment covering results from these two phases will be up for RAB/Regulator review in May 1997.

WHAT IS THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)?



- California's most comprehensive environmental protection law.
- Examines all environmental media, not just one.
- Examines all aspects of a project from early planning to implementation.

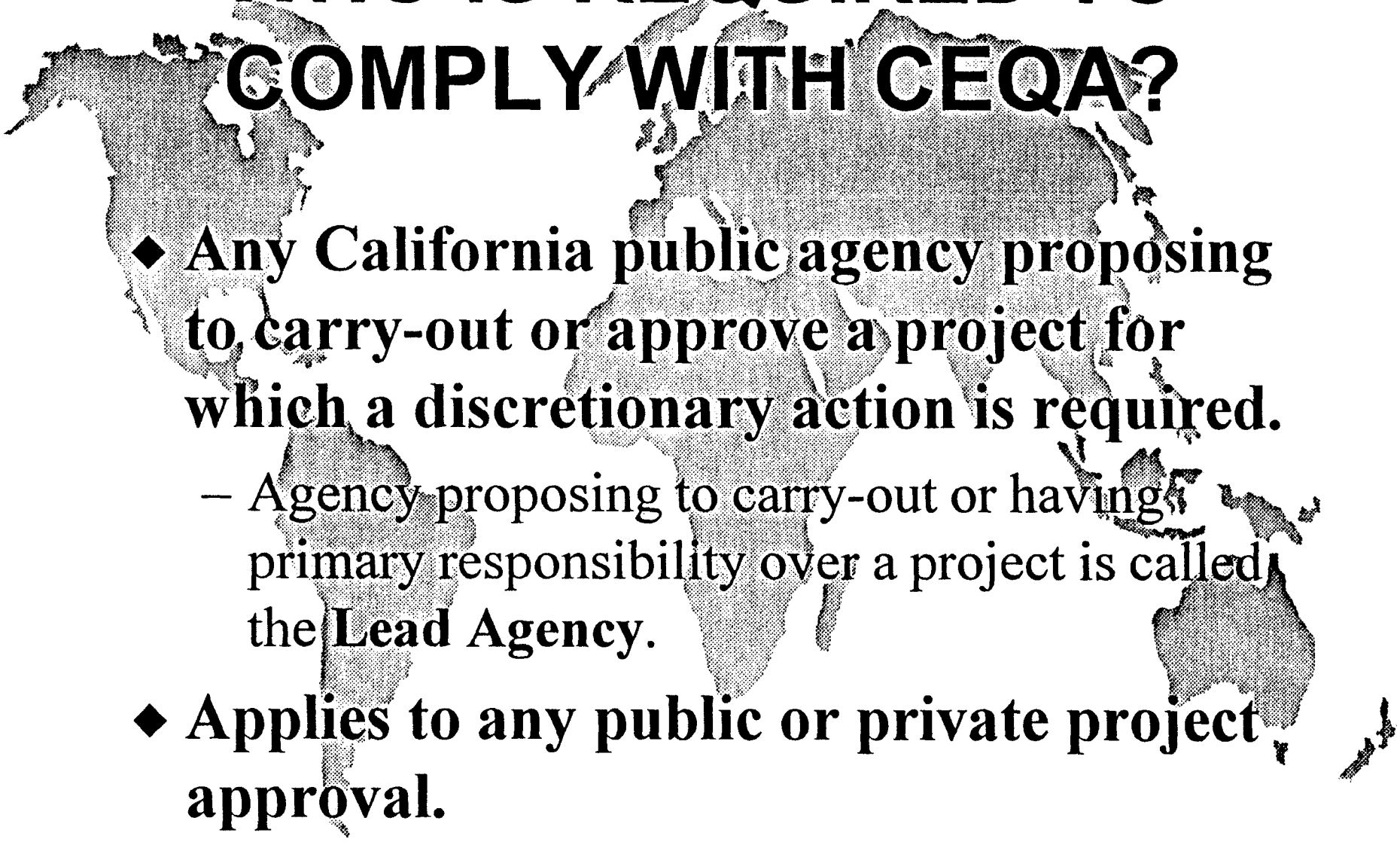
WHAT ARE THE OBJECTIVES OF CEQA?

- **Disclose environmental impacts:**
  - Initial Studies
    - Negative Declaration (Neg Dec)
    - Environmental Impact Report (EIR)
- **Identify and prevent environmental damage:**
  - Mitigation Measures
  - Alternatives
  - Mitigation Monitoring

WHAT ARE THE OBJECTIVES OF CEQA?

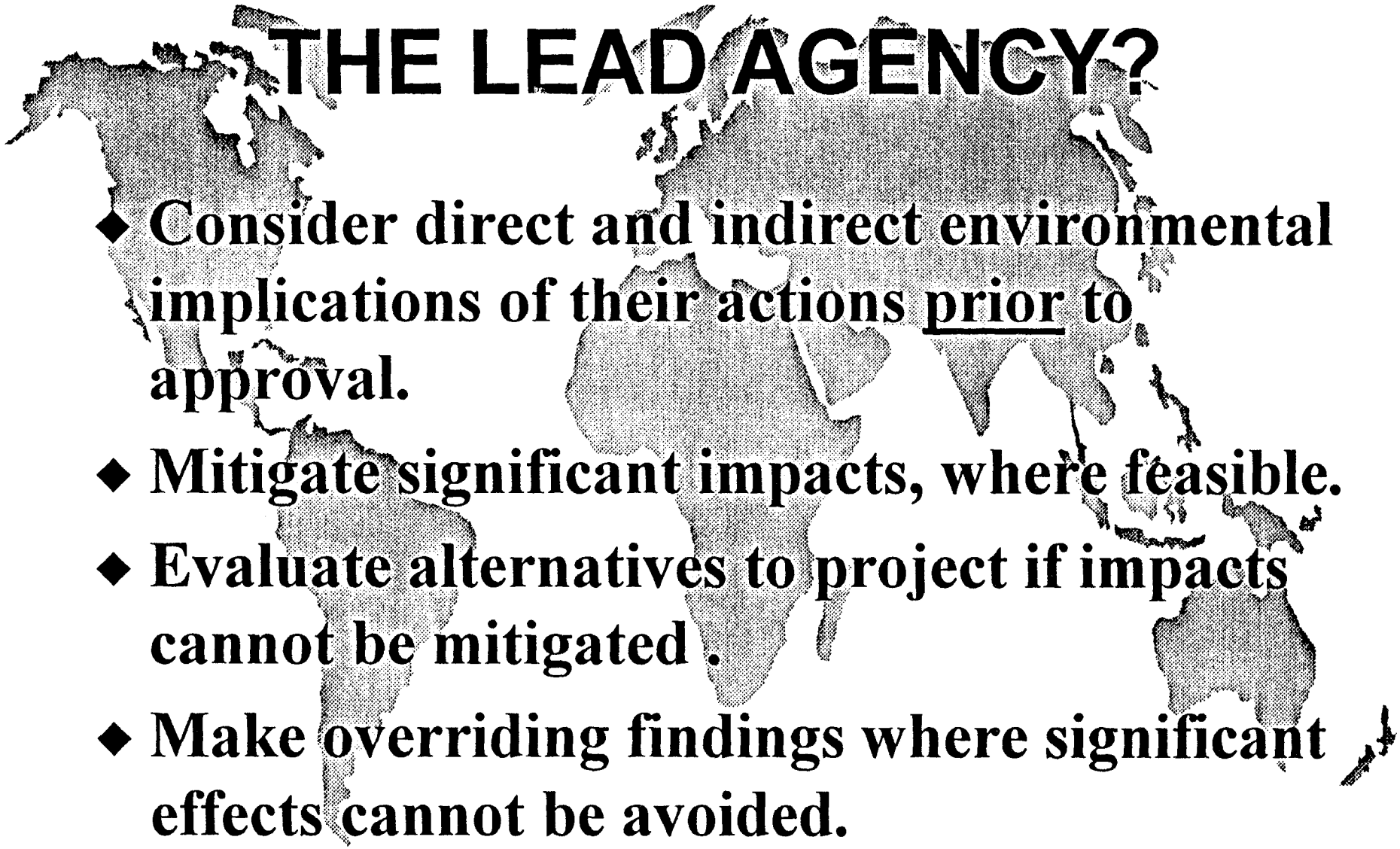
- **Enhance public participation:**
  - Public Notice and Comment Requirements
  - Response to Comments
  - Availability of Documents
  - Legal Enforcement Procedures
- **Foster intergovernmental coordination**
  - Scoping Meetings
  - Notices of Preparation
  - State Clearinghouse (SCH) Review

WHO IS REQUIRED TO COMPLY WITH CEQA?



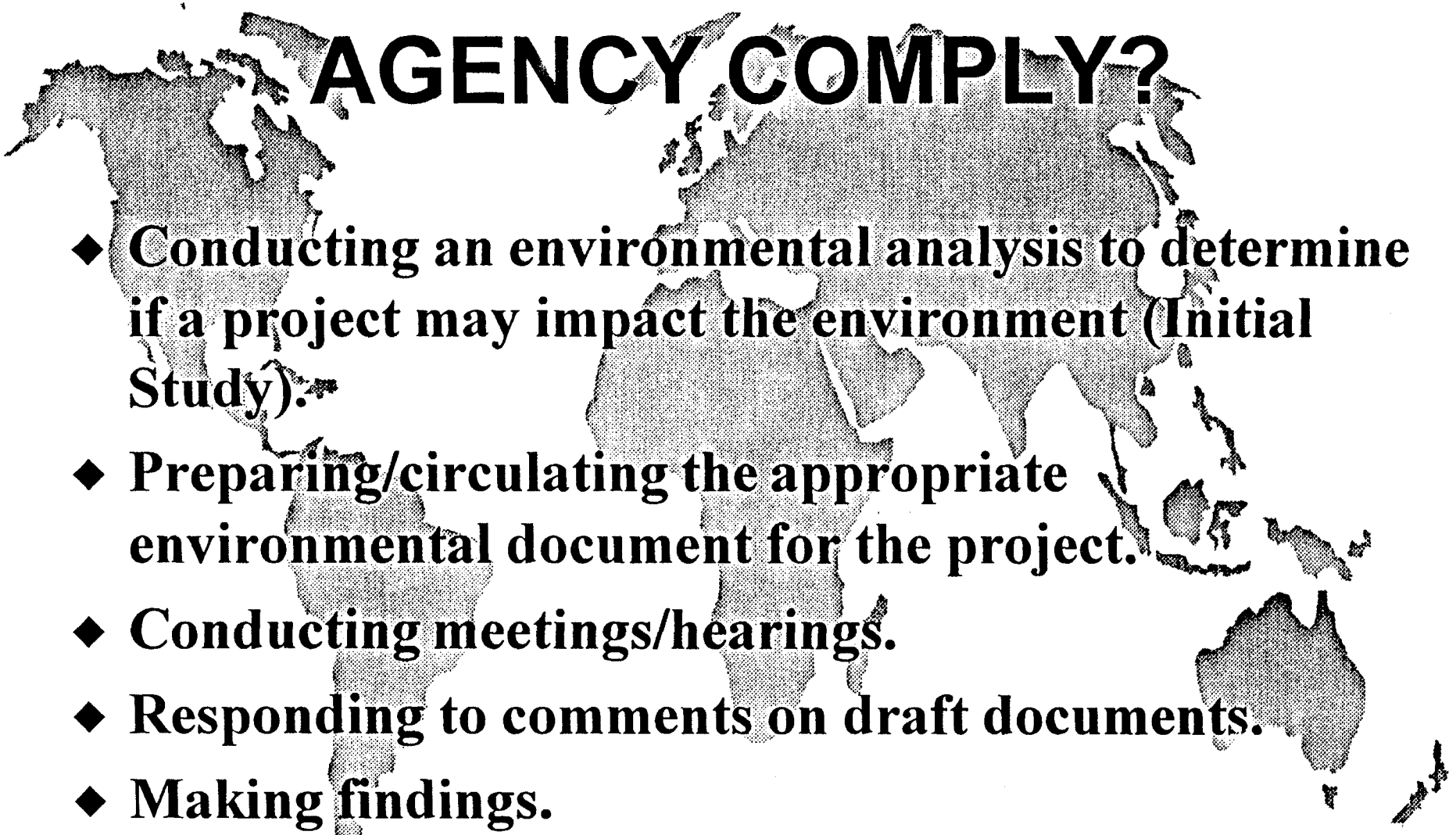
- **Any California public agency proposing to carry-out or approve a project for which a discretionary action is required.**
  - Agency proposing to carry-out or having primary responsibility over a project is called the **Lead Agency**.
- **Applies to any public or private project approval.**

WHAT IS REQUIRED OF THE LEAD AGENCY?



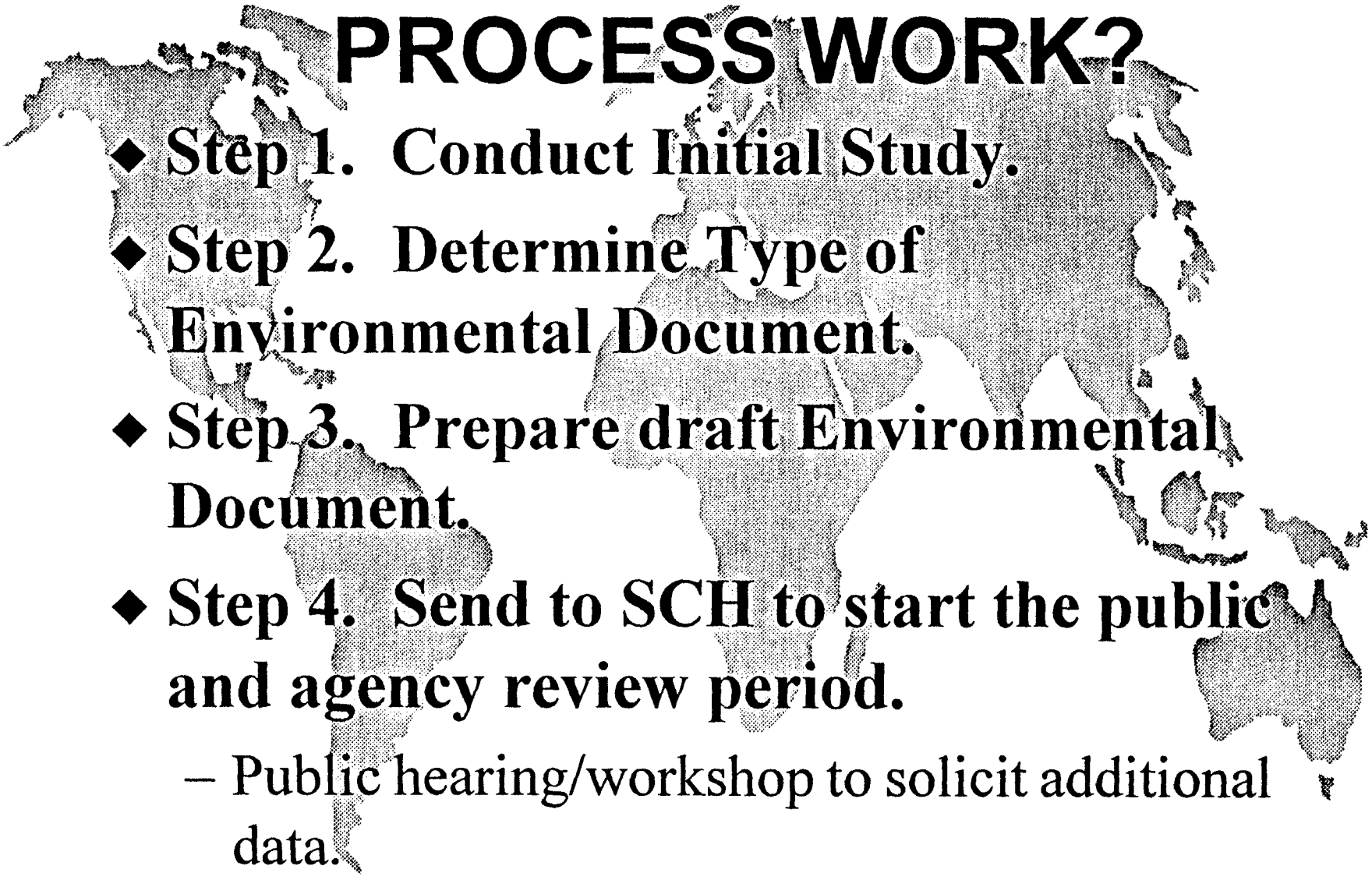
- Consider direct and indirect environmental implications of their actions prior to approval.
- Mitigate significant impacts, where feasible.
- Evaluate alternatives to project if impacts cannot be mitigated .
- Make overriding findings where significant effects cannot be avoided.

HOW DOES THE LEAD AGENCY COMPLY?



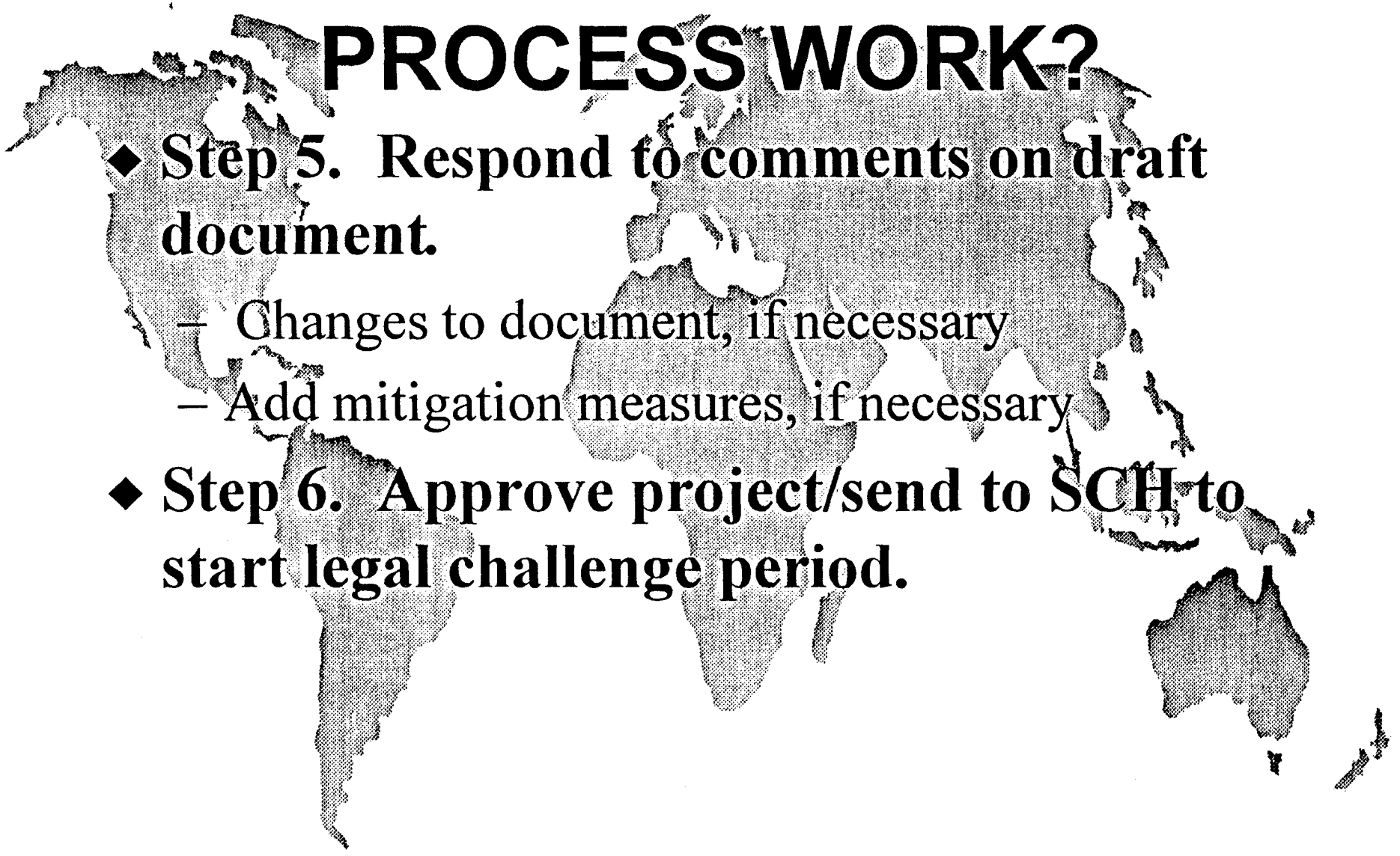
- Conducting an environmental analysis to determine if a project may impact the environment (Initial Study).
- Preparing/circulating the appropriate environmental document for the project.
- Conducting meetings/hearings.
- Responding to comments on draft documents.
- Making findings.
- Certifying/filing final documents.

HOW DOES THE CEQA PROCESS WORK?



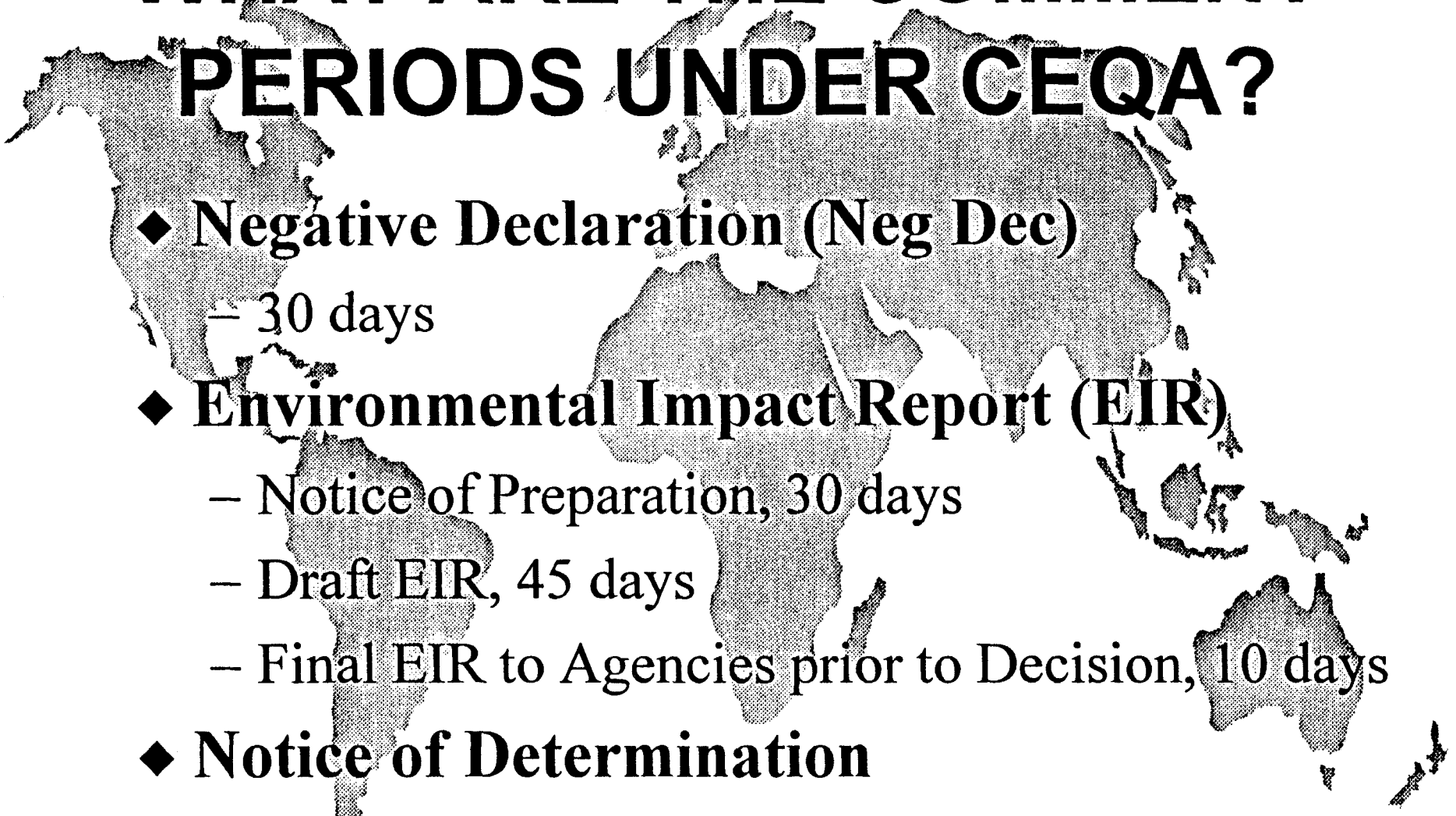
- **Step 1. Conduct Initial Study.**
- **Step 2. Determine Type of Environmental Document.**
- **Step 3. Prepare draft Environmental Document.**
- **Step 4. Send to SCH to start the public and agency review period.**
  - Public hearing/workshop to solicit additional data.

HOW DOES THE CEQA PROCESS WORK?



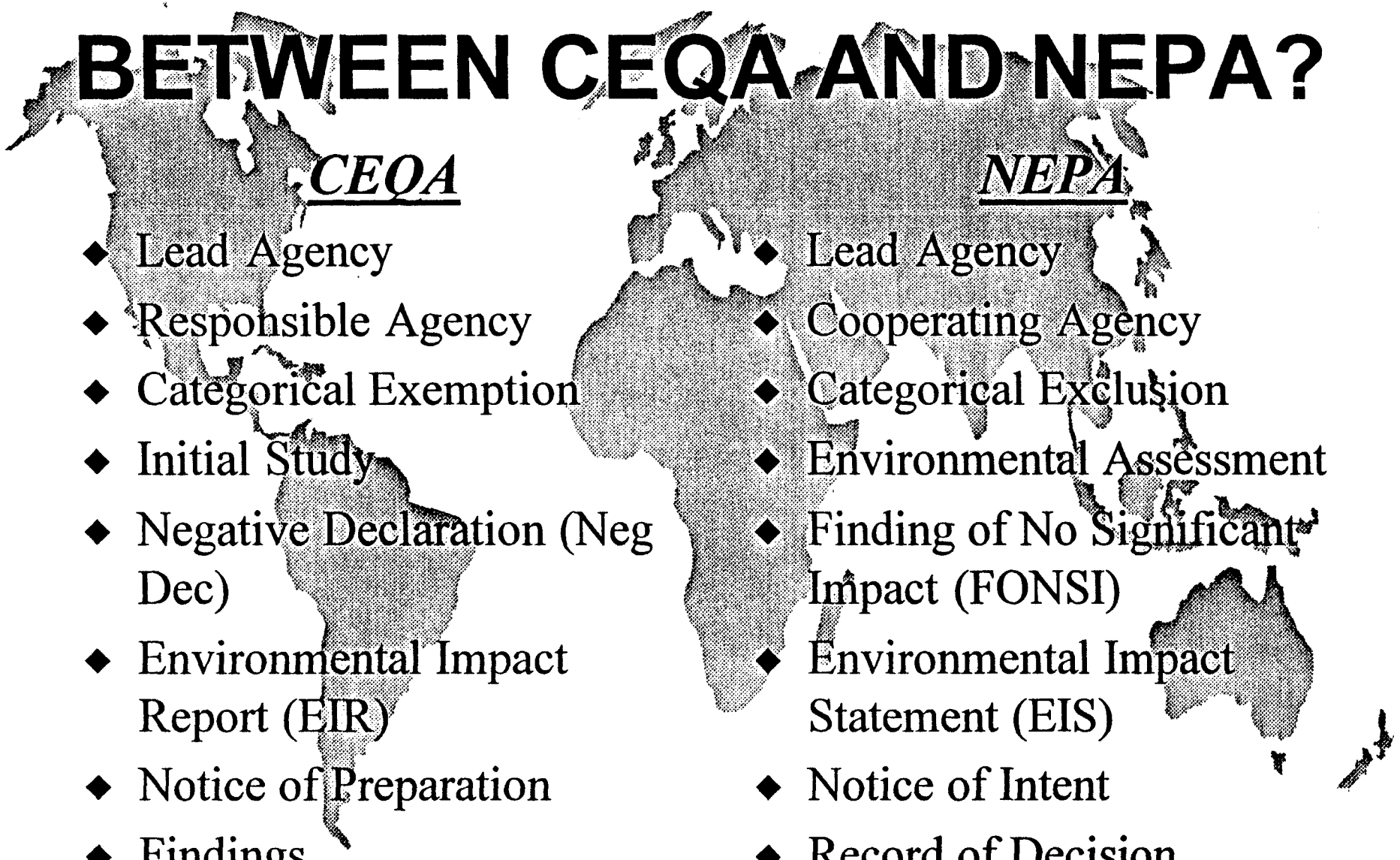
- **Step 5. Respond to comments on draft document.**
  - Changes to document, if necessary
  - Add mitigation measures, if necessary
- **Step 6. Approve project/send to SCH to start legal challenge period.**

WHAT ARE THE COMMENT PERIODS UNDER CEQA?



- **Negative Declaration (Neg Dec)**
  - 30 days
- **Environmental Impact Report (EIR)**
  - Notice of Preparation, 30 days
  - Draft EIR, 45 days
  - Final EIR to Agencies prior to Decision, 10 days
- **Notice of Determination**
  - 30 day Statute of Limitations

WHAT ARE THE SIMILARITIES BETWEEN CEQA AND NEPA?



CEQA

- Lead Agency
- Responsible Agency
- Categorical Exemption
- Initial Study
- Negative Declaration (Neg Dec)
- Environmental Impact Report (EIR)
- Notice of Preparation
- Findings

NEPA

- Lead Agency
- Cooperating Agency
- Categorical Exclusion
- Environmental Assessment
- Finding of No Significant Impact (FONSI)
- Environmental Impact Statement (EIS)
- Notice of Intent
- Record of Decision