

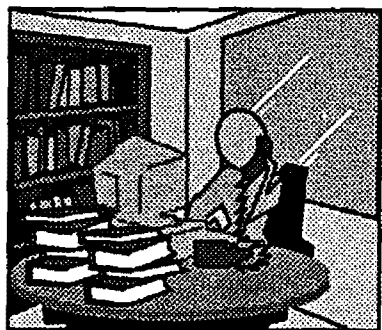
EPA
315
1998.1



FACILITATOR'S MANUAL FOR PRINCIPLES OF ENVIRONMENTAL IMPACT ASSESSMENT REVIEW

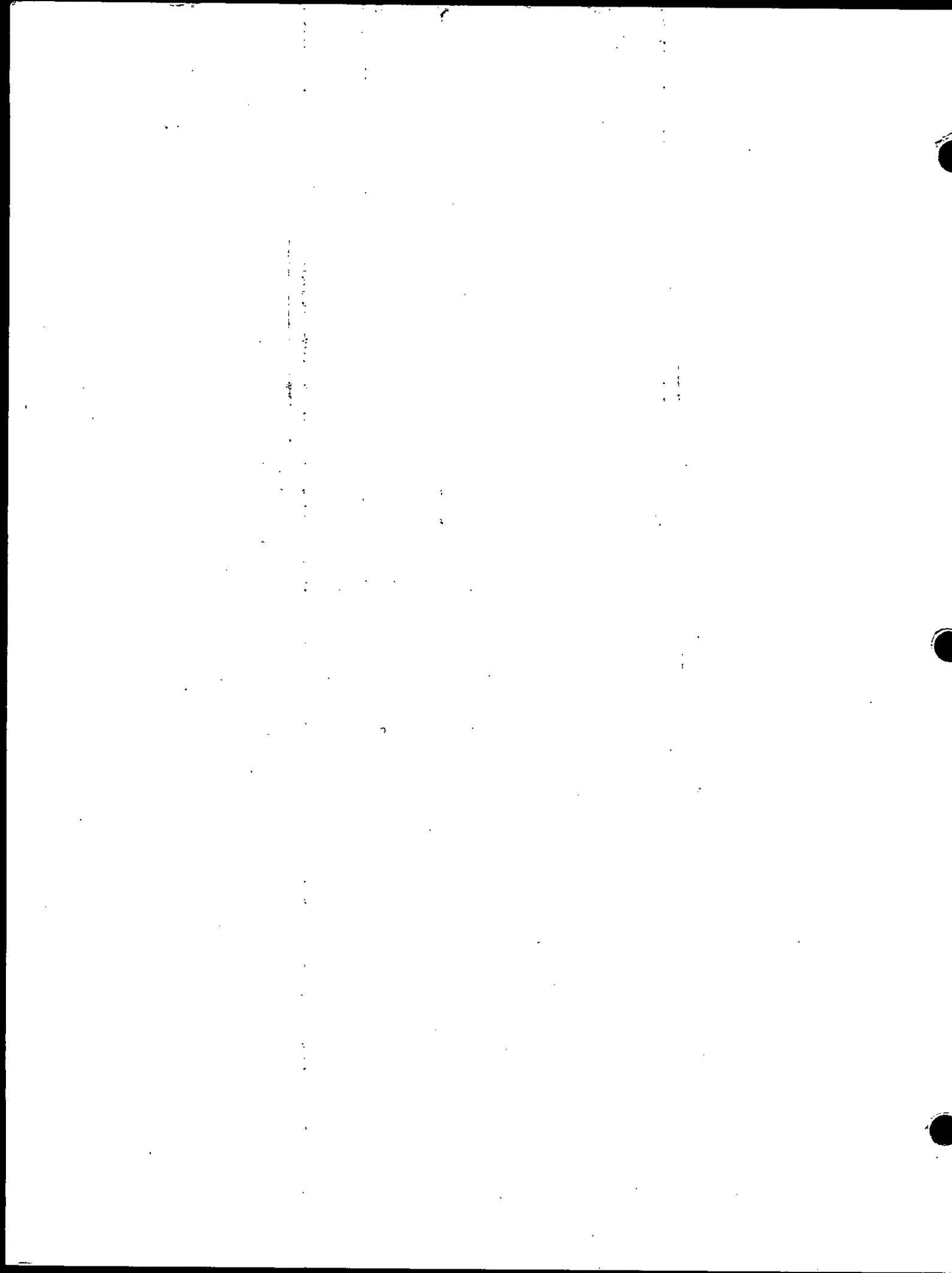
July 1998

U.S. EPA, 401 M Street, SW
Washington, DC 20460



U.S. Environmental Protection Agency
Office of Federal Activities MC-2251-A
401 M Street, Southwest
Washington, D.C. 20460

45266420



ACKNOWLEDGMENTS

This Facilitator's Manual, stand-alone text "Principles of Environmental Impact Assessment Review", and the associated Resource Manual constitute the materials for the international training course: "Principles of Environmental Impact Assessment Review". We would like to acknowledge the many individuals who contributed to the evolution and unique focus of this material.

First, we would like to acknowledge government officials in Mexico and Brazil who identified the need for further training to complement USEPA's first international course on "The Principles of Environmental Impact Assessment." They motivated the development of a sequel course by USEPA which in working with them has evolved from a potential course on "tools and techniques of environmental impact assessment" to its present form offering a unique perspective and previously unmet need to address "reviewers" of environmental impact assessment. The comments of Mexican officials who participated in a pilot in Monterey, Mexico in September of 1996 helped to further direct the course to utilize actual environmental impact assessments as the basis for the course and to enhance the technical content of the material. The course will continue to be enriched over time as we strive together to best meet the needs of colleagues around the globe.

We want to particularly acknowledge the contributions of Hector Pena of USEPA Region VI and Ed Yates, then of Region IX who facilitated the first pilot delivery in Monterey Mexico along with Mexican colleagues and who made key suggestions for improving the course. John Gerba and Arthur Totten in the Headquarters Office of Federal Activities served as project managers for this first phase of the course's development. Early work was funded by USAID through Pat Koshel and Cam Hill Macon of USEPA's Office of International Activities.

Second, we acknowledge the team of experienced USEPA reviewers who spent many hours identifying the approaches they took to the job of the "reviewer," identifying what might be good "case studies", and serving as "guinea pigs" for two successive pilots of further course developments. Special thanks to the insightful comments of Patience Whitten, Tim Timmermann of Region I; Marie Jenet of Region II; Francesca di Cosmo, Danielle Algazi, and Regina Poeske of Region III; John Hamilton and Ernesto Perez of Region IV; Mike MacMullen and Chris Christenson of Region V; Hector Pena of Region VI; Dewayne Knott and Cathie Tortorici of Region VII; David Schaller, Cindy Cody, Steve Moores, Alicia Aalto, and Wes Wilson of Region VIII; David Mowday of Region IX; Joan Cabreza, Wayne Elson, and Rene Fuentes of Region X; Anne Miller, Deputy Director of Headquarters Office of Federal Activities (OFA), Jim Serfis, of the NEPA Compliance Division in OFA for his constructive suggestions on categorization of biological resources, Cheryl Wasserman Associate Director, Headquarters OFA; and Gene Kersey, formerly of EPA Region VIII and now of the U.S. Department of Agriculture.

Principles of Environmental Impact Assessment Review

A note of thanks to Steven Moores whose imaginative illustrations during the August 1997 pilot inspired the use of logos for the "roadmaps" and "tools and techniques" guides throughout the course, to Gene Kersey for providing the electronic versions of the logos and to Ron Slotkin who helped develop the electronic version of my rendition of a road map to embellish a packaged "logo" for use in the course. Many thanks also to Ron Slotkin who helped develop the final graphic depiction of the EIA process flowchart out of my early prototypes.

Third, a special note of thanks to Arthur Totten who put together the accompanying Resource Manual based upon the USEPA Sourcebook for environmental impact assessment and various USEPA and World Bank guidance documents. The Sourcebook, prepared in 1993, was the result of a contract between the EPA Office of Federal Activities and Oak Ridge National Laboratory's Environmental Sciences Division. Its development was overseen by a panel of worldwide experts representing most aspects of environmental assessment. It contains a compilation of articles and collective experience in the preparation of environmental impact assessments.

The interactive CD-ROM which is disseminated to participants as part of this training builds on the sourcebook materials and original "Principles of Environmental Impact Assessment training course." It was put together by a team from US EPA Region V and Purdue University using an actual case example in Alaska to bring the materials to life. We acknowledge this important contribution by Dale Luecht, Robert Beltrain, Mike Bland and Alfred Krausse of USEPA Region V.

The "Principles of Environmental Impact Assessment Review" text, Resource Manual and Facilitator's Manual for the associated training course was developed under the technical direction and co-authorship of Cheryl Wasserman, Associate Director for Policy Analysis in USEPA's Office of Federal Activities, Office of Enforcement and Compliance Assurance with the assistance of Science Applications International Corporation (SAIC) Project Manager Kathleen Harrigan along with Kenneth Pruitt, Gregg Mallon, Takisha Cannon under contract number 68-W7-0050 and technical materials developed by Susan Moore, Andrew Warner, and Kellie DuBay of SAIC under prior contract, 68-W2-0026.

Finally, I would like to acknowledge the commitment of William Dickerson, Director of the Office of NEPA Compliance Division for continued support for the course development as testament to our commitment to those who have environmental impact assessment review jobs both within the United States and around the world.

Cheryl Wasserman
USEPA, Manager for Domestic and International Capacity Building
in Environmental Impact Assessment

IMPORTANT BACKGROUND INFORMATION

- The Principles of Environmental Impact Assessment Review training course is intended for independent reviewers within government and economic development institutions responsible for conducting environmental impact assessment reviews and using the results of the process to enhance decision making.
- This course is not specialized instruction in techniques of impact assessment, analysis or evaluation for scientists, engineers, economists and/or planners.
- The course has been designed to be taught in a facilitated style and draws heavily on group participation.
- This Facilitator's Manual is a guide for presenting the Principles of Environmental Impact Assessment Review training course. It contains the key points and general instructions for facilitating the course. It presents step-by-step instructions for conducting the course along with scripted text. It is assumed that the facilitators are experienced with facilitation techniques.
- This Facilitator's Manual is designed for instructors who have both a thorough understanding of environmental impact assessment process, environmental impact assessment review, and prior experience in facilitated training.
- Facilitators need significant preparation in advance of the course.
- Facilitators should be very familiar with the course, "The Principles of Environmental Impact Assessment Review" and the companion student text prior to presenting the "Principles of Environmental Impact Assessment Review."
- Facilitators should have attended the training course as a participant prior to presenting the course.
- The delivery of the course is greatly enhanced when the facilitators have conducted a full, four-day practice session.
- Considerable effort must be expended on logistics in order to present the course in a professional manner. These logistics may include document copying, flipchart preparation from 8½ x 11 inch originals, translation, and procurement of a training site, among others.

**Principles of Environmental Impact Assessment
Training Course
Facilitator's Manual**

TABLE OF CONTENTS

	<u>Page</u>
Acknowledgments.....	i
Important Background Information.....	iii
Table of Contents.....	v
Introduction to the Training Course.....	1
Description of the Course.....	1
Instructions and Tips for the Facilitators.....	3
Instructions for the Recorders.....	8
Course Planning Materials.....	9
Country-Specific Tailoring.....	9
Material for Course.....	9
Checklist for Planning, Conducting and Completing Training.....	11
Course Materials Matrix.....	15
Example Facilitator Schedule/Facilitator's Schedule Template.....	18
Course Agenda.....	20
Session 1 Welcome and Introduction.....	1-1
Session 2 Reviewer's Role in the Environmental Impact Assessment Process.....	2-1
Session 3 Review Approach to Overall Environmental Impact Assessment Document and Scoping.....	3-1
Session 4 Review of Purpose and Need and Alternatives.....	4-1
Session 5 Review of the Description of the Environmental Setting.....	5-1
Session 6 Review of Potential Environmental Impacts.....	6-1
Session 7 Review of Proposed Mitigation.....	7-1
Session 8A Introduction to Preparing and Communicating Reviewer Comments on a Draft Environmental Impact Assessment.....	8-1
Session 8B Preparation and Communication of Reviewer Comments on a Draft Environmental Impact Assessment.....	9-1
Session 9 Review of a Final Environmental Impact Assessment for Response to Comments.....	9-1
Session 10 Preparation of a Record of Decision and Mitigation Plan.....	10-1
Session 11 Resources for a Reviewer.....	11-1

Principles of Environmental Impact Assessment Review

Session 12	Country-Specific Applications	12-1
	Wrap-Up and Course Evaluation	13-1

Appendix A: Case Study Information

- **Selecting a Case Study**
- **Case Study Summary Format**
- **Case Study Summaries: Course materials include at least four case write-ups, but facilitation materials may be substituted or added for alternative cases.**

Appendix B: Flipcharts

Appendix C: Handouts

INTRODUCTION TO THE TRAINING COURSE

DESCRIPTION OF THE COURSE

This training course has been developed to instruct participants in the principles of environmental impact assessment review. The Facilitator's Manual should be used in conjunction with the student text entitled "Principles of Environmental Impact Assessment Review" and the Resource Manual. The Resource Manual is outlined in Appendix D of the Student Text. The course provides participants with an approach for effectively reviewing environmental impact assessments and becoming involved in the environmental impact assessment process. As such, the target audience of the course consists of government and other official reviewers of environmental impact assessments who have a good understanding of basic scientific concepts and an awareness of environmental issues. The course is not designed to offer specialized instruction in techniques of impact assessment, analysis, or evaluation for scientists, engineers, and planners. For those participants who desire to learn more after taking this course, Appendix D (Contents of Specific Environmental Impact Assessment Tools) of the "Principles of Environmental Impact Assessment Review" text contains references to textbooks and publications covering in greater detail the topics discussed in the training.

The course is taught in the facilitated style to promote participation and involvement, which is an optimal setting for learning. By exploring the environmental impact assessment process with their colleagues, participants should finish the course with review approaches that they will be able to draw upon in the future and a mechanism for training others to review environmental impact assessments. It also helps to develop a support network among course participants. The delivery of the course is most effective when it is taught by people who have been trained in the facilitated teaching style and who have knowledge of the environmental impact assessment process and who have actually served in positions as reviewers of environmental impact assessments.

Case Studies

In addition to using the facilitated style, this course also uses four real environmental impact assessments. The four environmental impact assessment case studies are chosen to expose the participants to a range of situations that they may encounter during environmental impact assessment reviews. The participants may also find the course to be more stimulating when they are given a variety of concerns and impacts to work with. The documents should be chosen to be examples of a range of projects. Several U.S. case studies were selected for the training. Draft and final environmental impact assessment documents, and all other course materials, are prepared and presented in English. The course has been designed to give facilitators and host countries the option of replacing up to three of the four environmental impact assessments with local documents written in the language of their choosing (see Appendix A — Selecting a Case Study).

Principles of Environmental Impact Assessment Review

Exercises

Throughout the course the purpose of each exercise is summarized as it is introduced to participants. These purposes highlight many of the key concepts the facilitator should cover. At the beginning of each exercise, a time breakdown is provided. Facilitators should note the approximate time for each portion of the schedule and stay within the allotted time.

References to the flipcharts and handouts that should be used are located before the scripted text in which they are discussed. Both prepared and blank flipcharts are used in this course. Blank flipcharts should be filled in by a recorder who will write down the participants' responses. Other flipcharts will be prepared beforehand with all of the necessary reference information that the Facilitator will present to the participants.

Throughout each session, Facilitators pose questions to the group, and the group's responses usually are recorded on a flipchart. Facilitators should be careful not to lead the group into making exhaustive lists. Instead, keep the lists directed on major points and bring the discussion to a timely close. Do not let discussions become side tracked. Once the list is sufficiently complete, wrap up the discussion by connecting the group's responses to the subject of the exercise. Make sure that participants give correct responses to the question. Facilitators should use established facilitation techniques to ensure that the correct response is understood, for example, by soliciting a different response and probing why the respondent would offer a different response, and indicating that in practice the latter response is thought to be correct.

Small Groups

The course is designed to be taught to between 16 and 20 participants. For many exercises, Facilitators will arrange the participants into two or four small groups. Facilitators may also wish to assign each group a different color and provide the group with that color magic marker to use to record its responses on a blank flipchart. The breakout group matrix, in the course planning materials section, presents an option for breaking the participants into groups.

The Student Text

The Student Text, "Principles of Environmental Impact Assessment Review," which accompanies this course, contains information and materials that will be discussed during the course. It is the responsibility of facilitators to have the Student Text prior to course delivery and to encourage participants to read the text. Facilitators may also highlight certain topics in the text during the exercise. Advise the participants that they can take notes, when covering the appropriate subjects, in the blank column space in the Student Text.

Principles of Environmental Impact Assessment Review

Finally, Facilitators should emphasize to participants that there is a greater amount of information on environmental impact assessment in the Student Text and also is covered in the exercises, and that they should take advantage of the Student Text to discover this information.

INSTRUCTIONS AND TIPS FOR THE FACILITATORS

Advance Preparation

It is important to spend sufficient time reviewing all of the material and become comfortable with it prior to delivering this course. The time required for this advance preparation will vary depending upon the experience of the facilitator and the country-specific tailoring that is required.

In order to facilitate this training course, you should have previously attended this course as a participant and you should be familiar with the text, "Principles of Environmental Impact Assessment Review." You should expect to spend about 40 hours preparing for delivery of this course. A practice session should be held with the facilitation team so that the course can run smoothly and so that everyone understands the sessions they are facilitating. You should also be familiar with the facilitated teaching style. It is recommended that a practice run of the course be given in the month prior to the actual course.

Facilitating the Course

The logistics of the training are important. Pay careful attention to the room setup, especially the arrangement of chairs, or desks or tables for the participants. It should be "U" shaped with space or nearby space for four breakout rooms. The training schedule should be adjusted as required to reflect the host country's typical daily schedule. During the practice run, designate responsibilities for tasks such as recording and taping flipcharts up on walls. Identify techniques for dividing the group and handling reports from the small work groups.

You should know the answers to the questions you will ask during the exercises. In most cases, possible responses are given in the Facilitator's Manual.

This manual has been developed to provide direction to the facilitator for introducing and explaining the course. It also ensures the course is replicable and consistent as it is delivered around the world. Nevertheless, each delivery is unique by virtue of the contributions by the participants and facilitators. The facilitators must be prepared to be excellent listeners and responsive to participants comments. The manual is arranged chronologically, beginning with pertinent information for the Facilitator. The remainder of the manual is divided into each day's activities. Copies of the flipcharts and handouts are included in Appendices B and C of this manual. At the beginning of each exercise, there is a listing of the flipcharts and handouts that will be needed. The course evaluation form is included in Appendix C.

Principles of Environmental Impact Assessment Review

Please note: the script for facilitators is in *italics*, while general instructions or directions to facilitators are printed in **BLOCK LETTERS**.

The Facilitators

This course is designed to be taught by a team of Facilitators. Each host country decides how many Facilitators to use. Facilitators should have good skills in, and knowledge of, both facilitated training concepts and the subject matter they are teaching.

It is highly recommended that the Facilitators spend at least a half day together on site and in advance of the course working out last minute logistics, arranging the seating in the training room, and preparing for the exercises. It is important that the Facilitators work as a team and communicate decisions well. In addition, it is recommended that a Facilitator wrap-up session be held at the end of each day to review the progress of the course and to make any adjustments necessary.

To ensure the success of the training course, do not allow the enthusiasm of the participants to ebb. Maintain their interest in the exercises, especially at the beginning of Day Three. Also, request that the participants be prompt when reconvening at the beginning of each day, after breaks and after lunch.

Lead Facilitator

One of the Facilitators should be designated as the lead facilitator. His or her responsibilities will include scheduling which Facilitator will teach each exercise, opening the course, and closing the course. The Lead Facilitator is also responsible for resolving any logistic or procedural problems that may arise. Facilitators should teach subjects that they are most familiar with. In addition, Facilitators and Recorders should trade places periodically, preferably after each exercise. A completed Facilitators' schedule has been included in the course planning section of the introduction to assist the lead Facilitator in scheduling.

Facilitated Training

As noted previously, facilitated training is founded on the belief that education is best done by participation and involvement. Facilitators should not preach or dictate an answer, but encourage participants to think about how they would approach the problem by asking questions and stimulating discussion. Responses to the questions are recorded by the Recorder on flipcharts.

The Facilitator should also emphasize that the exercises are hypothetical and drawn from a combination of real world situations. The purpose is not to mirror reality perfectly but to provide a basis for learning about environmental impact assessment, management, and communication. Participants should not try to guess the "right" outcome of the decision. Many times, there is no

Principles of Environmental Impact Assessment Review

right answer to a group role-playing exercise. The Facilitator should refer often to the environmental impact assessment flowchart, which is posted on the wall during Session 2, to provide participants with a sense of where the exercises or concepts being discussed are located in the process. In addition, the Facilitator should frequently refer to the project maps to illustrate spatial relationships and emphasize the linkage between projects.

The role of the Facilitator is to clarify, but also to challenge the group if necessary. Facilitators may find themselves on different sides of the issues from moment to moment. Part of the Facilitator's job is to stimulate discussion, raise ideas, and take the role of the less accepted view. You, as Facilitator, should also emphasize to the participants that they should have some fun with the problem!

In facilitated teaching, it is essential that Recorders and Facilitators work as a team. Facilitators and Recorders should be paired each day so that they can prepare together for their sessions. Pairing should also be done on the basis of knowledge of environmental impact assessment (i.e., more knowledgeable with less knowledgeable). Instructions for the Recorder follow this section.

Group Dynamics

It is assumed that Facilitators who present this course are experienced with a number of facilitating techniques. Instructions on how to facilitate are not included in this manual.

The Facilitator must try to foster full participation by each member of the class. To accomplish this, the Facilitator needs to create a welcoming environment where all of the participants feel comfortable in participating in discussions. Facilitators may have to segregate dominant and shy participants by adjusting seating arrangements. A Facilitator's body language can also be an effective tool in silencing an overly talkative participant or drawing out ideas from a reluctant participant.

When dividing the group into the smaller work groups, Facilitators may elect to put the shyest participants in one group. This will encourage them to participate and create a more comfortable environment. Facilitators should also require a different spokesperson to report to the group each time it is required. Facilitators should be creative in dealing with the group dynamics and should feel free to use a variety of means to involve all of the participants in discussion.

The "Parking Lot" may also be an effective means for extracting questions from reluctant participants. Write the title "Parking Lot" on a blank flipchart and post it in the back of the room. Tell the participants to write down questions they might not have felt comfortable asking or did not have time to ask during the class sessions. Ask the participants to write down their name next to the question, but only if they want a direct answer. At the end of the course, Facilitators should respond to the questions posed on the Parking Lot.

Principles of Environmental Impact Assessment Review

Questions on Facilitated Training

What is the difference between lecturing and facilitating?

- A lecturer knows all and conveys all by speaking at a group of students who are to listen, take notes and learn. A facilitator is there to help the group discover the material themselves, by asking questions, validating and eliciting responses, creating dialogue and creating the experiences participants need to learn. A facilitator plays a content role by quickly understanding, and ensuring the group understands the points being made, being able to distinguish nuance, size up group dynamics and make needed interventions to ensure a safe and respectful learning environment. Good facilitators can cover a lot of material by asking the right questions, challenging responses and not the participants, and thinking on their feet. Key facilitator techniques include: 1) use of reflective questions, for example: What do you think? after a question is directed to them; 2) inviting others to respond to a question; 3) brainstorming in which all ideas are welcome and put up on a flipchart — discussion is delayed as is evaluation until the ideas are generated. Experienced facilitators avoid judgmental and evaluative comments on participant contributions to discussion so as not to shut someone off from further contributions. A good facilitator will use all contributions to make the necessary points.

How Can I Increase My Confidence?

- Prepare for the course by reading the Facilitator's Manual - make notes in the margins or highlight important points. Practice in front of your co-workers and with your facilitation team. Use humor to become more at ease with the participants -- humor in the form of a humorous story is preferable to a joke. Prepare so that it is unnecessary to read the scripted text which is designed to aid in preparation and not to be read.

Technical Tips For Working With Flipcharts

- Set the flipcharts in advance. Make sure that they are in order. In particular, **make sure that there are blank flip charts behind flip charts that ink may "bleed" (soak) through to protect them from being ruined.** Make sure you are not standing between participants and the flipchart. Face the group as you speak, and keep the group's attention focused by pointing at the specific items that you are referring to.

Principles of Environmental Impact Assessment Review

What If the Group Asks a Question I Cannot Answer?

- Refer the question back to the group. Ask them their opinion or ask if anyone else knows the answer. Or, write the question down and find out the answer at the end of the day. Don't be afraid to admit you just do not know! Also, the question can be put on the "Parking Lot" and answered at the end of the class. This gives the facilitators some time to research an answer with the other facilitators.

What if the Group Asks a Question That Will be Answered in a Future Exercise?

- Let the group know that you will be getting to that and that it would be preferable to hold the question until then. Ask the group to repeat the question after the appropriate exercise or at the end of the day if it still has not been answered. Perhaps point out the question at the appropriate time and ask the group to answer it then.

What Are the Basic Classroom Principles?

- Focus on the situation, issue, or behavior, not the person. Maintain the self confidence and self esteem of each participant. Maintain good relationships with all participants. Take the initiative to make things a little better including room temperature, seating, group assignments, bringing out shy people, and quieting noisy people so everyone participates.

How Do I Promote Learning?

- Get participants involved in achieving the course objectives; remember, learning is a student-centered activity. Draw out the participants and discussion. Be enthusiastic about promoting learning in the time allotted regardless of the subject. Seek feedback and use it to judge whether the participants are learning. As a facilitator, take the time to learn the difference between good and bad instructing.

How Do I Overcome Nervousness?

- Don't focus on yourself. Focus on the participants learning from each other and the message you are trying to convey. Prepare for the training in advance and practice with co-workers and friends. Practice, Practice, Practice.

How Can I Handle Divergent Topics?

- At times, group discussions may stray from the course. It is up to the facilitator to determine if pursuing such a topic will benefit the group. If so, feel free to record

Principles of Environmental Impact Assessment Review

the group's responses on a blank flipchart. If not, exert leadership to politely get them back on track.

What Are the Characteristics of a Good Style of Delivery?

- Project your voice so that everyone can hear; speak to the back of the room. Time your remarks so that the pace is neither too slow nor fast. Maintain eye contact with the group by looking at different people. Use gestures to animate the discussion.

What Do I Say to an Arguer?

- Try to find out what this person wants or what his motive is for arguing. Ask the arguer if there is anything you, the facilitator, can do.

How Can I Win Over a Hostile Group?

- Be willing to listen to what the group has to say, and be willing to ask for the courtesy of listening to what you have to say afterward. Emphasize things on which you and the audience agree. Try to establish a common ground. Rely on logic and evidence instead of emotions.

How Do I Present Material not in the Native Language of the Participants?

- Allow more time for the participants to read materials when they are not in their native language. Also, consider asking for a volunteer to present a summary of the salient points. Usually, where it is needed, arrangements are made in advance for simultaneous interpretation and written materials are translated in advance. Care must be taken to ensure a good translation, but recognize that it is never perfect and welcome ideas for improving communications about key concepts and terms.

INSTRUCTIONS FOR THE RECORDERS

Recorder's Role

During each exercise, the Recorder's role is to assist the Facilitator. The primary function of the Recorder is to write down the group's responses to the questions being asked. Many flipcharts are used for reference purposes during the exercises, while others have only a title or a few words on them. The latter are used to lead discussions or pose questions to the group. It is on these flipcharts that the Recorder should write down the group's responses. A recorder should remain as close to the spoken words as possible so the group can recognize their material and not get distracted trying to correct what a recorder has put down. It is not necessary to write down a complete sentence; only key words should be recorded, but recorders should try to use exact

Principles of Environmental Impact Assessment Review

words to the extent possible to reinforce and avoid interpreting contributions by participants. The Recorder should feel free to ask the participants to repeat themselves, summarize their response, or speak louder. But the Recorder should avoid distracting the group from following the Facilitator's lead through the exercise. The Recorder should not stand directly in front of the paper when recording responses, but rather to the side so that the participants can see what is being written. If more space is needed, a blank flipchart should be used. Feel free to use abbreviations. When a flipchart is filled, the Recorder should number the page by session and number and tape it to the wall.

At times, group discussions may embellish materials in the course exercises. If the Facilitator wishes to continue those discussions, the Recorder should consider the value of recording these discussions on a blank flipchart to record the responses. By recording responses to questions that are asked, the group will feel that the discussion is important and worth contributing to. The Recorder should keep track of the time for the Facilitator and perform other logistic matters, such as distributing handouts, markers, etc.

COURSE PLANNING MATERIALS

The course planning materials are an aid to assist the facilitators in planning and delivering a professional course. Prior to course delivery, facilitators should ensure that all necessary materials are gathered or prepared. Flipcharts are provided in Appendix B and should be blown up. Handouts are located in Appendix C and will need to be copied so that there is one set for every participant. If materials needed for course delivery are not available for purchase in the host-country, US facilitators should make arrangements to ship them from the U.S. A checklist is included that outlines all of the preparation and follow-up activities necessary for successful presentation of the course. A completed Example Facilitator's Schedule is provided for reference. A blank Facilitator's Schedule is provided for planning.

COUNTY-SPECIFIC TAILORING

Most of the course is applicable to any country, legal, or cultural setting. Specific opportunity is made for:

- 1) substitution of up to 3 of the four course case studies with local examples (including substitution of the Supplemental Table of Contents (handout 3-1) for each case study and summary of selected public comments for each case study (handout 8-3)
- 2) inclusion of country-specific information in the Resource Manual, Section 4 such as laws, regulations, cites to relevant guidance
- 3) inclusion of summaries for sources of information and expertise within the country which provides comparable information to Sections 1.5.4 (Assessment) and 1.5.5 (Sources

Principles of Environmental Impact Assessment Review

of Environmental Data) in the Resource Manual as well as relevant Internet sites as listed in Section 7 of the Manual.

Section 12 also provides for an entire session devoted to country specific applications with provision for key country leaders to speak about EIA processes and policies within the country and facilitated discussion of how the subject matter of the course can be adopted for use in the country.

PRACTICE, PRACTICE, PRACTICE

Experience delivering this course results in one conclusion: the team needs to practice in several ways:

- 1) Facilitator/recorder teams should rehearse together going over use of flipcharts and handouts, and the "on deck" assignment should also be prepared to back them up for the session with posting of flipcharts, remembering handouts if forgotten, and keeping track of time.
- 2) Transitions from one session to the next need to be rehearsed.
- 3) All facilitators should be ready to deliver each session, regardless of assignments, not just their own;
- 4) Each facilitator must be familiar with the student text, how to reference it, and the main points to be made in their sessions so they can take advantage of spontaneous participant comments to reinforce the learning.
- 5) Each facilitator should be prepared to deliver the training in their own personal style but as set forth in the manual. This is very important for several reasons: a) the course is meant to be replicable, handed-off to other facilitator trainees and they need to be able to rely upon and find the course presentation aids in the facilitator's manual...not a one-time delivery, b) other facilitators depend upon you since the course builds on itself, and c) lastly, it is designed for participant derived insights, not lecture, and ad-libbing tends to favor the latter.
- 5) Each facilitator must know how to manage the session if they run short of time in a manner which ensures the integrity and content of the course is maintained.

Principles of Environmental Impact Assessment Review

MATERIALS FOR THE COURSE

Below is a list of the materials that are needed for this training course.

- Resource Manual - "Principles of Environmental Impact Assessment Review" - a copy for each participant and facilitator
- Student Text - "Principles of Environmental Impact Assessment Review" - a copy for each participant (Also a text of the Principles of EIA if participants do not already have copies is highly recommended)
- Facilitator's Manual - "Principles of Environmental Impact Assessment Review" - for each facilitator and for those being trained as facilitators for future deliveries
- Actual Draft Environmental Impact Assessment Documents for four actions/projects, one for each 1/4 of the class
- Actual Final Environmental Impact Assessment Documents for four action/projects, one for each participant
- A large quantity of small Post-It-Notes or any sticky-backed note paper so that participants can mark key places in the case studies, Resource Manual, Student Text, and elsewhere without making permanent marks with pens
- One set of handouts for each participant
- One set of large flipcharts with printed information for facilitator/recorder
- Five blank flipchart pads for recorder and small groups
- Six easels or stands for the flipcharts (two in front of entire group and four for small groups)
- Enlarged Flow Chart (preferably mounted on a backing board -- but not necessary)
- Masking Tape (lots) to post flipcharts around the room
or Push pins (alternate flipchart posting method)
- Eight Magic Markers (4 different colors, one color for each breakout group. Try to use ones that do not bleed through flipcharts onto flipcharts behind them.)
- Name tags
- Name tents
- Watch or clock
- Option 1: Video and projection equipment for viewing 1 hour overview of the content of the interactive compact disc and its use in both self study and as resource materials on environmental impact assessment preparation.
- Option 2: Computer with compact disc drive, video display hardware, and screen for projection and demonstration of the compact disc

Principles of Environmental Impact Assessment Review

CHECKLIST FOR PLANNING, CONDUCTING, AND COMPLETING TRAINING

Three Months Prior to the Course:

- ☐ Send letter to host locality confirming dates of the course.
- ☐ Establish contact person at the location where the training will take place. (This should be done in the initial letter).

This person can help with problems, questions, language problems, and can receive shipments of supplies, texts, etc. This person can also serve as a member of the team and improve successful delivery.

- ☐ Have the course organizers review the course materials and submit feedback.
- ☐ Review course and course materials with host locality and solicit feedback.
- ☐ Plan your schedule. You will need to commit approximately 60-80 hours over the next three months for preparation for the first delivery of the course in a host locality, as well as the time out of the office for delivery. Additional time may be required for scoping meetings prior to delivery. The second presentation should require less time.
- ☐ Conduct scoping meeting/conference call.
- ☐ Determine host locality's goal(s) for engagement.
- ☐ Obtain copies of host locality's environmental regulations.
- ☐ Develop/modify any materials required for country-specific tailoring
- ☐ Provide host locality with copies of the course brochure. Ask locality to include a copy of the brochure in its participant invitations. Send enough brochures for this purpose.
- ☐ Arrange for translation of student text by host locality.
- ☐ Determine technical skills and education of participants.

[This is especially important in determining which sections will be easy or difficult to present. The agenda and training may need to be adjusted.]

- ☐ Share scoping materials and checklist with other Team members.

Principles of Environmental Impact Assessment Review

Two Months Prior to the Course:

- ☐ Complete your travel documents and submit them to the Office of International Activities for approval.
- ☐ Make your travel reservations (airlines, hotel, etc.).
- ☐ Buy a good travel guide from a local bookstore. They often have good information about local customs and mores. Also, you may consult with your host country contact.
- ☐ Learn a few key phrases of the native language, such as "Hello", "Thank You," "Please," and "Do You Speak English?"
- ☐ Find out if there are any particular customs with respect to eating times, siestas, etc. that may impact the agenda for the course. Rearrange the agenda to accommodate these local customs. This information can be obtained easily from your host country contact.

One Month Prior to the Course:

- ☐ Ship training materials well in advance of the training dates.

Make sure that all materials needed for the course are at the training location prior to departure for the location. This is important. Easels, markers, flipcharts, and other "office" supplies may not be available or may be very expensive in certain countries. Also remember that there will be a very large quantity of materials, between the supplies and the case study environmental impact assessment documents, to ship. Plan and budget accordingly.

- ☐ Make sure that your lodging is as comfortable as possible.

The course requires extensive concentration, and facilitators need quality sleep time. Care should be taken not to offend the host of the training, but your comfort and rest are important to the success of the course.

- ☐ Conduct a practice session for delivery of the course.
- ☐ Decide what signatures will appear on the Certificates of Completion that will be given to each participant. Determine which signatures must be obtained prior to shipping materials to the host country site, as it will be difficult or impossible to obtain those signatures once the course has commenced.

Principles of Environmental Impact Assessment Review

During the Course:

- ☐ Allow at least one day for acclimation to the time and culture change. More time may be necessary with time changes greater than six or seven hours.

While sightseeing may not be on the agenda, become familiar with the surroundings of the classroom and the area.

- ☐ Always reconfirm ALL airline tickets, including internal travel. Tickets could be canceled if you do not.
- ☐ Carry an English translation dictionary.
- ☐ Allow time to rearrange the classroom to a configuration that is comfortable and conducive to learning. A "U" shape is recommended and encouraged.
- ☐ Have a separate room near the classroom for facilitator preparation. This can also serve as a get-away room for impromptu meetings.
- ☐ Have a translator in the room who is familiar with technical language.

While the participants may be able to speak and understand English, there may be times when the translator can explain something in the native language that will help the participants to understand a key concept.

- ☐ Take a photograph of the participants as a way of highlighting the importance of the course and their value in participating.

Make sure the picture is taken with proper lighting and that all participants are visible. Send copies of the photo to each participant.

- ☐ Bring trinkets with you as "prizes" for participation.

This will be greatly appreciated, increase the level of fun, and serve as a reminder of the course. If possible, make sure you have one for everyone. However, EPA funds may not be used to procure these gifts or trinkets.

- ☐ Make yourself available to answer questions during breaks or after the sessions.

Principles of Environmental Impact Assessment Review

One Month After the Course:

- ☐ Plan your time. Follow up can require 4 to 24 hours, depending upon promises made prior to departure.
- ☐ If you promise to provide the participants with answers to questions or additional materials on your return, make sure you do so.
- ☐ Complete trip report, attach correspondence, and send to module manager.

Three to Six Months After the Course:

- ☐ Contact host locality to determine whether the engagement was successful.
- ☐ Organize an evaluation of the utility of the training and any specific capacity building needs.

Principles of Environmental Impact Assessment Review

COURSE MATERIALS MATRIX

SESSION/TITLE	HANDOUTS	FLIPCHARTS [chart number]
1 Welcome and Introduction	Participants List [1-1] Agenda [1-2a or 1-2b] Course Evaluation Form [1-3]	(P) Welcome [1-1] (B) Goals for the Training (P) Course Goal [1-2] (P) Reviewer Situations [1-3] (P) Ground Rules [1-4] (P) Agenda [1-5a or 1-5b]
2 Reviewer's Role in the Environmental Impact Assessment Process	Definitions [2-1] Environmental Impact Assessment Process [2-2] Reviewer's Roles [2-3]	(B) Why Environmental Impact Assessment? (P) Environmental Impact Assessment Definition [2-1] (P) Environmental Impact Assessment Process [2-2] (P) Understanding the Context (1) [2-3] (P) Understanding the Context (2)[2-4] (P) What is the Focus During an Environmental Impact Assessment Review [2-5] (P) Environmental Impact Assessment Document Contents [2-6] (B) What is a Good Review?
3 Review Approach for Overall Environmental Impact Assessment Document and Scoping	Case Studies (4 draft environmental impact assessments, with copies of each for 1/4 of participants); Supplemental Table of Contents for Case Studies [3-1] Instructions for Overall and Scoping Review [3-2]	(P) Environmental Impact Assessment Document Contents [2-6] (B) What is a Good Review? (B) Approaches to Overall Environmental Impact Assessment Document Review (P) Road Map for Overall Environmental Impact Assessment Review (1)[3-1] (P) Road Map for Overall Environmental Impact Assessment Review (2)[3-2] (B) Approaches to Scoping Review (P) Road Map for Scoping Review [3-3] (P) Tools and Techniques for Scoping Review [3-4] (P) Advice for Reviewers [3-5]
<p>(P) = Prepared flipchart is produced in advance. 8½" x 11" versions of these flipcharts are in Appendix B. (B) = Blank Flipchart is used by the facilitator to record the discussion</p>		

Principles of Environmental Impact Assessment Review

SESSION/TITLE	HANDOUTS	FLIPCHARTS [chart number]
4 Review of Purpose and Need and Alternatives	Instructions for Purpose and Need and Alternatives Review [4-1]	(P) Project/Purpose and Need/Alternatives [4-1] (B) Purpose and Need and Alternatives (B) Project Description (B) Benefits of Evaluating Alternatives (P) Alternatives [4-2] (P) Road Map for Purpose and Need and Alternatives Review (1)[4-3] (P) Road Map for Purpose and Need and Alternatives Review (2)[4-4]
5 Review of Description of Environmental Setting	Local Information and Sources [5-1] Environmental Setting Document Excerpts [5-2] Instructions for Environmental Setting Review [5-3] Environmental Setting Checklist [5-3]	(P) Natural and Human (Socioeconomic) Environment Types [5-1] (P) Kinds of Data [5-2] (P) Sources of Data [5-3] (P) Information and Sources [5-4] (B) Adequacy (P) Road Map for Environmental Setting Review [5-5]
6 Review of Potential Environmental Impacts	Environmental Impact Evaluation - Document Excerpts [6-1] Environmental Impact Checklist [6-2] Instructions for Review of Impacts in Case Studies [6-3]	(P) Types of Environmental Impacts [6-1] (P) Examples of Environmental Impacts [6-2] (B) Significance (P) Road Map for Environmental Impacts Review [6-3]
7 Review of Proposed Mitigation	Proposed Mitigation Document Excerpts [7-1] Instructions for Review of Proposed Mitigation [7-2]	(P) Hierarchy of Mitigation Types [7-1] (P) Road Map for Mitigation Review (1) [7-2] (P) Road Map for Mitigation Review (2) [7-3]
8 A Introduction to Preparing and Communicating Review Comments on a Draft Environmental Impact Assessment	Instruction for Management Plan Development [8-1]	(P) Road Map for Overall Review (1) [3-1] (P) Road Map for Overall Review (2) [3-1] (P) Road Map for Draft Environmental Impact Assessment Review [8-1]
(P) = Prepared flipchart is produced in advance. 8½" x 11" versions of these flipcharts are in Appendix B. (B) = Blank Flipchart is used by the facilitator to record the discussion		

Principles of Environmental Impact Assessment Review

SESSION/TITLE	HANDOUTS	FLIPCHARTS [chart number]
8 B Preparing and Communicating Review Comments on a Draft Environmental Impact Assessment	<p>Instruction for Management Plan Development [8-1]</p> <p>Road Maps and Tools and Techniques [8-2]</p> <p>Instructions for Communication Letter Development [8-3]</p> <p>Selected Public Comment for Each Case Study [8-4]</p>	<p>(P) Road Map for Overall Review (1) [3-1]</p> <p>(P) Road Map for Overall Review (2) [3-1]</p> <p>(P) Road Map for Draft Environmental Impact Assessment Review [8-1]</p> <p>(P) Road Map for the Communication Letter [8-2]</p>
9 Reviewing a Final Environmental Impact Assessment for Response to Comments	<p>Final Case Studies for all participants</p> <p>Instructions for Review of the Final Environmental Impact Assessment [9-1]</p>	<p>(P) Road Map for Final Environmental Impact Assessment Review (1) [9-1]</p> <p>(P) Road Map for Final Environmental Impact Assessment Review (1) [9-2]</p>
10 Preparation of a Record of Decision and Mitigation Plan	<p>Road Map for Record of Decision Preparation [10-1]</p> <p>Road Map for Mitigation Plan Preparation [10-2]</p> <p>Instructions for Record of Decision and Mitigation Plan Development [10-3]</p> <p>Mitigation Follow-up and Action Plan [10-4]</p>	<p>(P) Road Map for Decision Preparation [10-1]</p> <p>(P) Road Map for Mitigation Plan Preparation [10-2]</p>
11 Resources for a Reviewer	<p>[Resource Manual and Student Text Referenced During the Session Should be Distributed on Day 1 of the Course]</p> <p>Compact Disc</p>	<p>(P) Resources for a Reviewer [11-1]</p>
12 Country-Specific Applications	TBD by Sponsor Country	(P) Country-Specific Contexts [12-1]
Final Wrap-Up and Course Evaluation	<p>Course Evaluation Form [13-1]</p> <p>Certificates of Completion</p>	(P) Reviewer's Code [13-1]
<p>(P) = Prepared flipchart is produced in advance. 8½" x 11" versions of these flipcharts are in Appendix B.</p> <p>(B) = Blank Flipchart is used by the facilitator to record the discussion</p>		

Principles of Environmental Impact Assessment Review

EXAMPLE FACILITATOR SCHEDULE

FACILITATORS' NAMES:	J. Burke (JB) E. Wright (EW) M. Boyer (MB) E. Rhoads (ER)	EXTRA RECORDERS:	D. Algazi (DA) P. Claggett (PC)
----------------------	--	------------------	------------------------------------

Day 1 set up:	ER & JB
Day 2 set up:	MB & EW
Day 3 set up:	ER & EW
Day 4 set up:	JB & MB

SCHEDULE

DAY ONE	Session #	Facilitator	Recorder	On-Deck
	1	JB	ER	EW
	2	EW	JB	MB
	3	MB	EW	ER
	4	ER	MB	JB
DAY TWO	Session #	Facilitator	Recorder	On-Deck
	5	JB	ER	EW
	6	EW	JB	MB
	7	MB	EW	ER
	8A	ER	MB	JB
DAY THREE	Session #	Facilitator	Recorder	On-Deck
	8B	JB	ER	EW
	9	EW	JB	MB
DAY FOUR	Session #	Facilitator	Recorder	On-Deck
	10	MB	EW	ER
	11	ER (or host country)	MB	JB
	12	JB	ER	EW
	Wrap-Up	EW	JB	MB

Principles of Environmental Impact Assessment Review

FACILITATORS' SCHEDULE TEMPLATE

FACILITATORS'

NAMES:

Day 1 set up:

Day 2 set up:

Day 3 set up:

Day 4 set up:

SCHEDULE

DAY ONE	Session #	Facilitator	Recorder	On-Deck
	1 2 3 4 5			
DAY TWO	Session #	Facilitator	Recorder	On-Deck
	6 7 8A			
DAY THREE	Session #	Facilitator	Recorder	On-Deck
	8B 9			
DAY FOUR	Session #	Facilitator	Recorder	On-Deck
	10 11 12 Wrap-Up			

Principles for Environmental Impact Assessment Review

Agenda (A)

(Times correspond with the materials in the Facilitator's Manual)

Day	Time	Session	Title
1	8:30	(0:45)	Registration (0:30)
	9:10	1 (0:50)	<u>Welcome and Introduction</u> (D) Introductions (0:20) (D) Introduction to Four Reviewer Situations (0:10) (D) Purpose and Background (0:10) (D) Overview of the Agenda (0:10)
	10:00	2 (2:00) Including Break	<u>Reviewer's Role in the Environmental Impact Assessment Process</u> (D) Why Environmental Impact Assessment? Environmental Impact Assessment Review, Process and Key Definitions (0:15) (D) Environmental Impact Assessment Definitions and Process (0:15) (S) Reviewer Roles in Each Phase of Process (0:20) Break (0:20) (D) Report on Reviewer Roles (0:10) (D) Reviewer's Context (0:15) (D) Reviewer's Focus (0:15) (D) Good Reviews (0:10)
	12:00	(1:00)	Lunch
	1:00	3 (2:05)	<u>Review Approach for Overall Environmental Impact Assessment Document and Scoping</u> (D) Introduce Case Studies (0:05) (D) Approach to Overall Review (0:10) (D) Identifying Significant issues: Scoping (0:10) (I) Overall and Scoping Case Study Review (Break Included) (0:75) (D) Report on Overall and Scoping Review (0:15) (D) Tools and Techniques and Advice to Reviewers (0:10)
	3:05	4 (1:55)	<u>Review of Purpose and Need and Alternatives</u> (D) Key Review Concepts: Project Description, Purpose and Need, and Reasonable and Feasible Alternatives (0:15) (D) Review for Appropriate Alternatives (0:10) (D) Introduction to Reviewer's Road Map (0:10) (S) Purpose and Need and Alternatives Review Exercise (0:45) (D) Report-out on Purpose and Need and Alternatives (0:15) (D) Session Wrap-Up (0:10) (D) Day 1 Wrap-Up (0:10)
	5:00		Adjourn

Principles for Environmental Impact Assessment Review

Agenda (A)

(Times correspond with the materials in the Facilitator's Manual)

Day	Time	Session	Title
2	8:30	5 (2:15)	<u>Review of Description of the Environmental Setting</u> (D) Overview of Previous Sessions (0:10) (D) Components of Environmental Setting (0:15) (D) Approach to Environmental Setting Review (0:10) (S) Environmental Setting Case Study Review (0:50) (D) Report-Out on Environmental Setting Review Reports from Small Groups (0:25) (D) Session Wrap-Up (0:10) Break (0:15)
	10:45	6 (3:35) Including Lunch	<u>Review of Potential Environmental Impacts</u> (D) Environmental Impact Definition and Forecasting Methodologies (0:40) (D) Approach to Environmental Impacts Review (0:10) (S) Environmental Impacts Review (lunch included) (2:20) (D) Report-Out on Environmental Impacts Review (0:15) (D) Advice to Reviewers List (0:10)
	2:20	7 (1:40)	<u>Review of Proposed Mitigation</u> (D) Types of Mitigation and Review of Proposed Mitigation (0:10) (D) Mitigation Effectiveness (0:10) (D) Approach to Mitigation Review (0:15) (S) Review of Proposed Mitigation (includes break) (0:45) (D) Report-Out on Review of Proposed Mitigation Review (0:15) (D) Advice to Reviewers (0:05)
	4:00	8A (1:00)	<u>Introduction to Preparing and Communicating Review Comments on a Draft Environmental Impact Assessment</u> (D) Draft Environmental Impact Assessment Review (0:15) (S) Development of a Management Plan (0:45)
	5:00		Adjourn

Principles for Environmental Impact Assessment Review Agenda (A)

(Times correspond with the materials in the Facilitator's Manual)

Day	Time	Session	Title
3	8:30	8B (6:00) Including Lunch	<u>Preparing and Communicating Reviewer Comments on a Draft Environmental Impact Assessment</u> (S) Preparing and Communicating Reviewer Comments (including lunch) (4:30) (D) Review of Comment Letters Report-out (1:00) (D) Discussion of Public Comments (0:30)
	2:30	9 (2:30) Including Break	<u>Reviewing a Final Environmental Impact Assessment for Response to Comments</u> (D) Final Environmental Impact Assessment Review Introduction (0:15) (S) Final Environmental Impact Assessment Review (including break) (1:30) (D) Report-Out on the Final Environmental Impact Assessment Review (0:40) (D) Advice to Reviewers (0:05)
	5:00		Adjourn

Legend

- (D): Group Discussion
- (I): Individual Review
- (R): Report Out
- (S): Small Group

Principles for Environmental Impact Assessment Review Agenda (A)

(Times correspond with the materials in the Facilitator's Manual)

Day	Time	Session	Title
4	8:30	10 (2:20)	<u>Preparing and Supporting a Record of Decision and Mitigation Plan</u> (D) Record of Decision and Mitigation Plan Introduction (0:10) (D) Approach to Record of Decision and Mitigation Plan Preparation (0:10) (S) Preparing a Record of Decision and Mitigation Plan (includes break) (1:20) (D) Record of Decision and Mitigation Plan Report (0:30)
	10:40	11 (1:35)	<u>Resources for a Reviewer</u> (D) Review of Student Text (0:02) (D) Review of Principles of Environmental Impact Assessment Review Resource Manual (0:03) (D) Review of the Compact Disc Programs and Use (0:05) (D) Demonstration of the Compact Disc Programs (1:00) (D) Discussion of the Compact Disc Programs and Other Resources (0:25)
	12:15	(1:15)	Lunch
	1:30	12 (3:00) including break	<u>Country-Specific Applications</u> (L) Group Discussion (includes break) (3:00)
	4:30	13 (0:30)	<u>Final Wrap-Up and Course Evaluation</u> (D) Day 4 Wrap -up (0:10) (I) Course Evaluation (0:20)
	5:00		Adjourn

Legend

- (D): Group Discussion
- (I): Individual Review
- (R): Report Out
- (S): Small Group

Principles of Environmental Impact Assessment Review

Agenda (B)

(Times in the Facilitator's Manual can be adjusted to accommodate a modified schedule)

Day	Time	Session	Title
Evening	3:00	(0:20)	Registration
	3:20	(0:20)	Guest Speaker - Welcome Address
	3:40	1 (0:50)	<u>Welcome and Introduction</u> (D) Introductions (0:20) (D) Introduction to Four Reviewer Situations (0:10) (D) Purpose and Background (0:10) (D) Overview of the Agenda (0:10)
	4:30	2 (2:00) Including a Break	<u>Reviewer's Role in the Environmental Impact Assessment Process</u> (D) Why Environmental Impact Assessment? Environmental Impact Assessment Review, Process and Key Definitions (0:15) (D) Environmental Impact Assessment Definitions and Process(0:15) (S) Reviewer Roles in Each Phase of Process (0:20) Break (0:20) (D) Report on Reviewer Roles (0:10) minutes (D) Reviewer's Context (0:15) (D) Reviewer's Focus (0:15) (D) Good Reviews (0:10)
	6:30		Adjourn

Principles of Environmental Impact Assessment Review Agenda (B)

(Times in the Facilitator's Manual can be adjusted to accommodate a modified schedule)

Day	Time	Session	Title
1	8:30	(0:30)	Registration
	9:00	3 (2:30)	<u>Review Approach for Overall Environmental Impact Assessment Document and Scoping</u> (D) Introduce Case Studies (0:05) (D) Approach to Overall Review(0:10) (D) Identifying Significant issues: Scoping (0:10) (I) Overall and Scoping Case Study Review (Break Included) (0:80) (D) Report on Overall and Scoping Review (0:30) (D) Tools and Techniques and Advice to Reviewers (0:15)
	11:30	4 (3:30) Including Lunch	<u>Review of Purpose and Need and Alternatives</u> (D) Key Review Concepts: Project Description, Purpose and Need, and Reasonable and Feasible Alternatives (0:30) Lunch (0:60) (D) Review for Appropriate Alternatives (0:10) (D) Introduction to Reviewer's Road Map (0:10) (S) Purpose and Need and Alternatives Review Exercise (1:00) (D) Report-out on Purpose and Need and Alternatives (0:30) (D) Session Wrap-Up (0:10)
	3:00		Break
	3:20	5	<u>Review of Description of the Environmental Setting</u> (D) Components of Environmental Setting (0:30) (D) Approach to Environmental Setting Review (0:10) (S) Environmental Setting Case Study Review (0:50) (D) Day 1 Wrap-Up (0:10)
	5:00		Adjourn

Principles of Environmental Impact Assessment Review Agenda (B)

(Times in the Facilitator's Manual can be adjusted to accommodate a modified schedule)

Day	Time	Session	Title
2	8:30	5 (1:20)	<u>Review of Description of the Environmental Setting</u> (D) Overview of Previous Sessions (0:10) (D) Report-Out on Environmental Setting Review Reports from Small Groups (1:00) (D) Session Wrap-Up (0:10)
	9:40		Break
	10:00	6 (4:20) Including Lunch	<u>Review of Potential Environmental Impacts</u> (D) Environmental Impact Definition and Forecasting Methodologies (1:00) (D) Approach to Environmental Impacts Review (0:20) (S) Environmental Impacts Review (lunch included) (2:20) (D) Report-Out on Environmental Impacts Review (0:30) (D) Advice to Reviewers List (0:10)
	2:20	7 (1:40)	<u>Review of Proposed Mitigation</u> (D) Types of Mitigation and Review of Proposed Mitigation (0:10) (D) Mitigation Effectiveness (0:10) (D) Approach to Mitigation Review (0:15) (S) Review of Proposed Mitigation (includes break) (0:45) (D) Report-Out on Review of Proposed Mitigation Review (0:15) (D) Advice to Reviewers (0:05)
	4:00	8A (1:00)	<u>Introduction to Preparing and Communicating Review Comments on a Draft Environmental Impact Assessment</u> (D) Draft Environmental Impact Assessment Review (0:15) (S) Development of a Management Plan (0:45)
	5:00		Adjourn

Principles of Environmental Impact Assessment Review Agenda (B)

(Times in the Facilitator's Manual can be adjusted to accommodate a modified schedule)

Day	Time	Session	Title
3	8:30	8B (6:00) Including Lunch	<u>Preparing and Communicating Reviewer Comments on a Draft Environmental Impact Assessment</u>
	1:00		(S) Preparing and Communicating Reviewer Comments (including lunch) (4:30)
	2:00		(D) Review of Comment Letters Report-out (1:00) (D) Discussion of Public Comments (0:30)
	2:30	9 (2:30) Including Break	<u>Reviewing a Final Environmental Impact Assessment for Response to Comments</u>
			(D) Final Environmental Impact Assessment Review Introduction (0:15)
			(S) Final Environmental Impact Assessment Review (including break) (1:30)
			(D) Report-Out on the Final Environmental Impact Assessment Review (0:40)
			(D) Advice to Reviewers (0:05)
	5:00		Adjourn

Principles of Environmental Impact Assessment Review

Agenda (B)

(Times in the Facilitator's Manual can be adjusted to accommodate a modified schedule)

Day	Time	Session	Title
4	8:30	10 (2:20)	<u>Preparing and Supporting a Record of Decision and Mitigation Plan</u> (D) Record of Decision and Mitigation Plan Introduction (0:10) (D) Approach to Record of Decision and Mitigation Plan Preparation (0:10) (S) Preparing a Record of Decision and Mitigation Plan (includes break) (1:20) (D) Record of Decision and Mitigation Plan Report (0:30)
	10:40	11 (1:35)	<u>Resources for a Reviewer</u> (D) Review of Student Text (0:02) (D) Review of Principles of Environmental Impact Assessment Review Resource Manual (0:03) (D) Review of the Compact Disc Programs and Use (0:05) (D) Demonstration of the Compact Disc Programs (1:00) (D) Discussion of the Compact Disc Programs and Other Resources (0:25)
	12:15	(1:15)	Lunch
	1:30	12 (3:00) Including Break	<u>Country-Specific Applications</u> (L) Group Discussion (includes break) (3:00)
	4:30	13 (0:30)	<u>Final Wrap-Up and Course Evaluation</u> (D) Day 4 Wrap -up (0:10) (I) Course Evaluation (0:20)
	5:00		Adjourn

SESSION 1: WELCOME AND INTRODUCTION

MATERIALS:		TIME: 50 minutes	
Flipcharts:	1-1 Welcome 1-2 Course Goal 1-3 Reviewer Situations 1-4 Ground Rules 1-5 Agenda	SETTING:	Group discussion
Handouts:	1-1 Facilitators/Participants List 1-2 Agenda 1-3 Course Evaluation Form		
Other:			
TEXT:	NA		
PURPOSE:	<ul style="list-style-type: none"> • Meet the participants and facilitators for the course • Review training goals and clarify how participant goals may be met • Ensure participants understand the training approach for the course • Ensure participants understand the schedule for the course and what to anticipate 		
TIME BREAKDOWN:			
Part A	Introductions	Group Discussion	20 minutes
Part B	Introduction to Four Reviewer Situations	Group Discussion	10 minutes
Part C	Purpose and Background	Group Discussion	10 minutes
Part D	Overview of the Agenda	Group Discussion	10 minutes

PART A. Introductions (Group Discussion, 20 min.)

DISPLAY FLIPCHART # 1-1 (WELCOME).

Good morning. Welcome to the Principles of Environmental Impact Assessment Review. We are pleased to have representation from _ (CITE ORGANIZATIONS). Thank you all for attending.

My name is _____. I work for _____ in _____. I will be one of the facilitators for this course.

BRIEFLY DESCRIBE YOUR PROFESSIONAL BACKGROUND AND EXPERIENCE WITH ENVIRONMENTAL IMPACT ASSESSMENTS. INTRODUCE CO-FACILITATORS AND ASK THEM TO DESCRIBE THEIR EXPERIENCES.

Participant Introductions

- *At this time I would like each of you to introduce yourself, and state where you are from, the agency you represent, and what you do. Also, tell us what your interest and experience is in reviewing environmental impact assessments, and share your goals for taking the course (what do you want to gain from this experience?).*

GO AROUND THE ROOM. AS PARTICIPANTS ARE INTRODUCING THEMSELVES, RECORD THE GOALS ON A BLANK FLIPCHART.

DISPLAY FLIPCHART #1-2 (COURSE GOAL).

The course goal is to support your capacity to effectively review environmental impact assessment documents and participate in the environmental impact assessment process.

BRIEFLY TIE IN THE COURSE GOAL WITH GOALS THAT THE PARTICIPANTS CITED. ARE THEY THE SAME? POINT TO THE TWO FLIPCHARTS. COMPARE. POST THE FLIPCHARTS ON THE WALL.

PART B. Introduction to Four Reviewer Situations (Group Discussion, 10 min.)

Now that we have met each other, I would like to introduce you to four reviewers who are also going to be part of this course. These four reviewers represent situations you may find yourselves in at any given time. First, I would like you to meet "Solo."

REVEAL FLIPCHART # 1-3 (REVIEWER SITUATIONS) POINTING TO THE FIRST FIGURE.

Solo

"Solo" is sitting in this windowless office with a bare light bulb overhead. Piled on his or her desk are dozens of environmental impact assessments to review. And they are also piled on the floor and out the door. Solo is alone in this windowless office reviewing environmental impact assessments.

- *This is, of course, somewhat exaggerated, but does anyone recognize "Solo" or at least the feeling or fear of being "Solo"? Can we choose a better name than "Solo"? (Let's call him or her:.....).*

Empowered

The next reviewer I would like you to meet is "Empowered." Empowered has a window on the world. Empowered has a resource library, a network of experts to call upon, access to inside information on projects and stakeholders — that is, those who have a stake in the outcome of a proposed action — including government and non-governmental contacts and decision makers.

Empowered has maps and other information and background on the geographic area affected. Empowered is organizationally "solo," but not alone or without the means to find out what he or she needs to know.

- *Does anyone recognize "Empowered"? Can you think of a better name for our reviewer?*

Lead

The next reviewer is the "Lead" reviewer. Environmental impact assessment documents may be reviewed by an individual or a team led by an individual within an organization which requires environmental impact assessment. In his or her organization, for our "Lead" reviewer, responsibilities include review of environmental impact assessments, preparation of comments, and official coordination of review among experts in related organizations and departments. These other reviewers are sometimes referred to as "associate" reviewers. The lead reviewer is a manager of the review process.

- *Does anyone recognize "Lead"? Can we give the "Lead" reviewer a name?*

Proactive

Finally, we have "Proactive." This reviewer gets involved before an environmental impact assessment is drafted, early in the process, so he or she and the project proponent can define what they expect before it is developed.

- *Does anyone recognize "Proactive"? What should we name him or her?*

These four different reviewers reflect four different actual situations any one reviewer can find themselves in when carrying out their role as a reviewer. Even the most experienced, connected, and empowered reviewer may find themselves in Solo's situation. They may be given too many environmental impact assessments to review in a short period of time on subjects or areas for which they cannot draw upon their normal resources.

We will take these four reviewers with us on our journey through the review process. They will remind us of these different situations so that we can ask ourselves what we would do if we were in their situation — for every reviewer must be flexible and prepared to be in any of these situations. During the first two days of this course you will be acting in a role similar to the "solo reviewer." One objective of the course is to provide you with the knowledge and tools to enable each of you to become an "empowered reviewer" of environmental impact assessment documents. On the third day of the course you will have an opportunity to carry out the "lead reviewer" roles in your groups.

Throughout the process we will discuss what a reviewer might do when there is an opportunity to be more proactive to prevent problems before they arise. One way to move from a solo reviewer into a proactive one is to learn what resources are available to you and this is one of the primary course objectives.

In front of you should find several resources which will be introduced in the course:

- (1) the Student Text for this course, which should be in front of you, that covers the role of the reviewer in the EIA process, and offers important tools and approaches to make the job of reviewer successful in any of the four reviewer situations;*
- (2) the Student Text for the companion course, "Principles of Environmental Impact Assessment" which also contains reference materials on which you can draw.*
- (3) the "Principles of EIA Review Resource Manual," which also should be in front of you. The Resource Manual contains overview material and information on each element of the EIA process along with methodologies of EIA preparation and review as well as laws, regulations and guidance documents from numerous sources, including the World Bank and USEPA. Two guidelines are included in their entirety, one on the ecological impacts of highways and the other on the development of EIA for the mining sector;*
- (4) Checklists for each stage of the EIA process, which can be found in Appendix C.2 of the Student Text and also in the Resource Manual; and*
- (5) the compact disc accompanying the Resource Manual and part of this course, titled, "Environmental Assessment Case Study," which contains both an EIA resource guide of tools, issues, and reference materials for each stage of the EIA process and an interactive program that walks through the EIA process using an actual proposed project — the Diamond Dhuitna Coal project in Alaska and also provides a vehicle for applying this same logic and tool to any EIA.*

You will have an opportunity to draw upon these resources throughout the course. These materials are available to you to take home with you as will be the example Environmental Impact Assessment documents we will be introducing in the course. In Session 11, we will go over these resources in more detail.

- Does anyone have any other comments or questions about the reviewer situations or the reference material?*

DISTRIBUTE HANDOUT # 1-1 (FACILITATORS/PARTICIPANTS LIST).

I have just placed before you contact information for facilitators and participants for this course, to help you develop a network of contacts. One goal of the training is to build in-country and international networks for mutual assistance.

Part C. Purpose and Background (Group Discussion, 10 min.)

Before we begin, I want to offer background on the origins of the course. This course for reviewers is a sequel to the original course, "Principles of Environmental Impact Assessment." That course was one of the early environmental management courses developed by the U. S. EPA. The Principles course and others in the series were initially developed at the request of environmental agencies in Central and Eastern Europe that were concerned about the devastating effects of industrial operations on the environment and human health. The governments were interested in preventing new environmental problems and strengthening public participation in the environmental impact assessment process. Since its delivery in Europe, the Principles of Environmental Impact Assessment training course has been successfully delivered in numerous countries around the world and translated into several languages.

The Principles of Environmental Impact Assessment course was designed around well-established international frameworks for environmental impact assessment. We encouraged participants to think about the reasons for different elements of environmental impact assessment. By allowing them to reason and derive certain parts of the environmental impact assessment process on their own, applied to a realistic case study, we hoped that citizens, members of academic institutions and policy-makers would finish the course with a deeper appreciation for the elements of environmental impact assessment and a common language to work together to design their own or improve an existing program.

Some participants requested more tools and training in how to develop an actual environmental impact assessment. Although we struggled to develop such a course, we quickly realized that a one-week course was insufficient to make the participants experts in subjects such as marine biology, air pollution and monitoring, or environmental engineering. Environmental impact assessment is interdisciplinary, which meant that many disciplines would have to be covered. Finally, we realized that if we made the course too technical it would miss other important needs of the participants on how to think through the process of review and become an effective participant in the process.

Thus, we realized that something that was missing in environmental impact assessment training the world over was a course to meet the special needs of the environmental impact assessment reviewer. Without being experts in various disciplines, reviewers must be able to

ask the right questions about the environmental impact assessment document, its analysis, of the experts, and the process. The reviewer should be able to pull together information from the various disciplines in a way that will aid decision-making.

So, to reiterate, the goal of the Principles of Environmental Impact Assessment Review course is to support your capacity to be an effective reviewer. We will present to you a road map for the review of environmental impact assessment documents and for participation in the process. We will discuss, without becoming too technical, tools and techniques available for the development of an environmental impact assessment and for the review of the documents involved. Another critical part of this facilitated course is helping you to discover what can go right and what can go wrong in the process and we will be developing some supplementary "Advice for Reviewers." You will talk about being effective reviewers in these different situations. Because you each bring a wide range of review experiences to the discussion, this course is a wonderful opportunity for you to identify and work through the rough spots of the review process and to network with colleagues.

Facilitated Training

Now that we have all been introduced and you have an understanding of the course goals and background, I would like to discuss the facilitated style of learning that we will use for this course.

This course is based on participant-driven learning. That means that as your facilitator, I will not be responsible for lecturing to you, and you will not be expected to passively absorb the materials I present. It is important that you participate. The review process that you experience through participation will remain with you after the course ends. Facilitated learning in turn will enable you to become effective facilitators of the course.

Role of Facilitator

As the facilitator, I am here to make it easier for you to share your environmental impact assessment review experiences with your colleagues. As your facilitator, I am here to introduce you to material, answer questions about the exercises and help you to explore the principles of the review process. I will also help you to establish and follow the ground rules that will structure the way that we communicate with each other over the next four days.

Role of the Participant

What are participants expected to do? Participate as much as possible, learn from the experiences of your colleagues, test new ideas and look at the materials you are presented with from a variety of perspectives. This course cannot work without your participation.

Ground Rules

DISPLAY FLIPCHART # 1-4 (GROUND RULES).

In order for this course to work effectively, we must establish some ground rules. I ask that each of you understand and agree to follow certain ground rules:

Listen while others are speaking because we want everyone to feel free to express their ideas.

Respect others' opinions. We are here to learn from one another. We would like to have a free and open exchange of ideas, so give everyone the opportunity to offer their own views.

There are no wrong answers. Even if you do not understand someone else's responses at first, these responses may stimulate other thoughts and positive new ideas.

Use your imagination. Take a creative approach to resolving problems. Do not feel that you are bound to the conventional approaches to review that are used now.

Timeliness is important since we will need adequate time to cover all of the material. Most importantly, we want everyone to participate in the course as much as possible.

Participate. You will get out of this course what you put into it. Other participants will benefit from your thoughts.

- *Are there additional ground rules that you would like to add?*

RECORD ANY ADDITIONAL GROUND RULES ON THE BOTTOM OF FLIPCHART # 1-4.

Part D. Overview of the Agenda (Group Discussion, 10 min.)

DISTRIBUTE HANDOUT # 1-2 (AGENDA)

USE FLIPCHART # 1-5 (AGENDA) TAILORED TO THE SPECIFIC DELIVERY AND THE CORRESPONDING HANDOUT (# 1-2).

I am now handing out the Agenda for the course. The course will last for four days (not including the evening welcome session). Each day will begin promptly at 8:30 a. m., and we will adjourn at 5:00 p. m. We will break at noon each day for lunch and have two half-hour breaks each day, sometimes incorporated into a case study review session.

POINT TO ITEMS ON THE FLIPCHART AS YOU DESCRIBE THEM.

Day One

In session 2, we will talk about the importance of environmental impact assessment, the reviewer's role in the environmental impact assessment process, make sure we have common definitions of key terms, and review the phases of the environmental impact assessment process. You will have the opportunity to talk about the reviewer's role in different phases of the environmental impact assessment process within small groups which will report out to the larger group on your conclusions. Then we will discuss the context and focus for review. We will talk about and describe the typical environmental impact assessment document. The session will end with a group discussion about what makes a good environmental impact review. This discussion will wrap-up before we break for lunch.

After lunch, we will hand-out different draft environmental impact assessments and assign you to one of four groups within which you will be working for much of the remainder of the course. We will begin Session 3 with a group discussion about approaches to overall document, process, and scoping review. In this as in other sessions we will introduce you to a road map for carrying out the review of relevant aspects of the document and process and give you an opportunity to apply the thinking behind the road map to an actual environmental impact assessment. Road maps are designed to avoid getting "lost" during a review.

Session 4, will focus on the purpose and need and alternatives sections of the environmental impact assessment document. In our large group, we will identify purpose and need and alternatives for typical projects and talk about the importance of purpose and need and the use and number of alternatives within the environmental impact assessment process. You will have an opportunity to apply the concepts in your assigned group's review of your actual draft environmental impact assessment. We'll have a brief session wrap-up and take a little time to go over the day's activities before we adjourn at 5.

Day Two

Day 2 will begin with an overview of Day 1 followed by a group discussion of environmental setting. We will talk about the components of the environmental setting and approaches to reviewing the environmental setting section of an environmental impact assessment document. You will break into small groups for the environmental setting review. Small groups will discuss their approaches environmental setting review. After a break, we will continue the small group discussion and hear small group reports. Each of the small groups will report out to the larger group.

When we return we will use the remainder of the morning to discuss environmental impacts, definitions, ways to project environmental impacts, including forecasting methods and approaches to review. After lunch, we will finish up the small group discussions on environmental impact, and allow the small groups to report on their discussion. The

remainder of the afternoon will be used to talk about mitigation types, mitigation effectiveness and approaches to review. We will end Day 2 with a brief session wrap-up and a group discussion to close the second day's activities. We will introduce the assignment for establishing and implementing a management plan for the review of the entire draft environmental impact assessment in an integrated fashion and allow you to organize yourselves so that if you wish, you may use the evening period to more carefully review the documents.

Day Three

On Day 3, you will move into your small groups to begin a comprehensive review of a draft environmental impact assessment document. Within your small groups, you will prepare and implement a lead reviewer management plan, identify significant issues from an integrated perspective, and develop a reviewer comment letter. After lunch the small groups will have an opportunity for a short role play as different groups share their public comment letters with the reviewers for that case study. We also will have an opportunity to discuss reviewer roles in public participation and response to public comment. We will then move into a large group discussion about the approaches to final environmental impact assessment review. The small groups will review the final environmental impact assessment for response to comments made on the draft. Small group reports on the final review and plans for review will be presented to the larger group. After the small group reports, we will wrap up the session. We will take a few minutes to review the day's activities before adjourning at 5 p.m.

Day Four

On the final day of the course, we will begin with a discussion on how to prepare and support a record of decision and mitigation plan. Small groups will outline and report out on their records of decision and mitigation plans. We will wrap up the session with a review of the entire process we went through, our road maps, tools and techniques and Advice to Reviewers List.

HOLD UP AND INTRODUCE STUDENT TEXT AND RESOURCE MANUAL.

On Day Four, we will spend two hours speaking about resources for reviewers. We will review how you can use the Student Text and Resource Manual, which we will be referring to throughout the course, as an ongoing resource. We will distribute to each of you a compact disc that can be used as a resource for environmental impact assessment reviewers.

When we return from lunch, we will spend the majority of the afternoon in a large group discussion about country-specific applications using our context for review.

DISTRIBUTE HANDOUT # 1-3 (COURSE EVALUATION).

At 4:30, we will have an open discussion about the course evaluation, so that you will have the opportunity to tell us what you liked about the course and identify areas for improvement. We welcome your suggestions. The course evaluation will be followed by a wrap-up of the day's activities and adjournment. I am handing out the course evaluation form for you to complete as you go through the course.

- *Any questions or comments?*

Before we move on, I would like to go over logistics briefly.

SPECIFY NO SMOKING IN THE ROOMS - OUTSIDE ONLY.

ASK PARTICIPANTS TO SPEAK UP SO THAT OTHERS CAN HEAR THEIR COMMENTS.

REVIEW THE VIDEOTAPING AND AUDIO-TAPING PROCEDURES.

ASK THE RECORDER TO KEEP TRACK OF TIME.

Evening Welcome Session Presentation

IF A PRESENTATION IS SCHEDULED FOR AN EVENING SESSION, THIS IS THE TIME TO PREPARE THE PARTICIPANTS FOR THE SPEAKER. STATE THE SPEAKER'S NAME, POSITION, AGENCY AND OTHER RELEVANT CREDENTIALS FOR THE AUDIENCE. GIVE THE TITLE OF THE PRESENTATION. INVITE THE SPEAKER TO COME TO THE PODIUM, OR FRONT OF THE ROOM.

SESSION 2: REVIEWER'S ROLE IN THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS**MATERIALS:****Flipcharts:** 2-1 Environmental Impact Assessment Definition

2-2 Environmental Impact Assessment Process

2-3 Understanding the Context (1)

2-4 Understanding the Context (2)

2-5 What is the Focus During an Environmental Impact Assessment Review?

2-6 Environmental Impact Assessment Document Contents

TIME: 2 hours**SETTING:** Group discussion
Small group exercise**Handouts:** 2-1 Definitions

2-2 Environmental Impact Assessment Process Flow Chart

2-3 Reviewer's Roles

Other: Resource Manual (e.g., 1.2, 4)**TEXT:**

3. The Environmental Impact Assessment Reviewer's Roles and Responsibilities

3.1 Introduction

3.2 The Role of the Reviewer

3.3 Reviewers and Review Teams

3.4 Reviewer's Role in Each Element of the Environmental Impact Assessment Process

3.5 Communicating the Findings of the Review

3.6 Overcoming Obstacles to Effective Environmental Impact Assessment Review

- PURPOSE:**
- Introduce environmental impact assessment process and definitions
 - Examine reviewer's role in environmental impact assessment process
 - Introduce context for environmental impact assessment review
 - Introduce focus for environmental impact assessment review
 - Provide common foundation for what constitutes good review

TIME BREAKDOWN:

Part A	Why Environmental Impact Assessment? Environmental Impact Assessment Review, Process and Key Definitions	Group Discussion	15 minutes
Part B	Environmental Impact Assessment Definitions and Process	Group Discussion	15 minutes
Part C	Reviewer Roles in Each Phase of Process	Small Group Discussion	20 minutes
Break			20 minutes
Part D	Report on Reviewer Roles	Group Discussion	10 minutes
Part E	Reviewer's Context	Group Discussion	15 minutes
Part F	Reviewer's Focus	Group Discussion	15 minutes
Part G	Good Reviews	Group Discussion	10 minutes

PART A. Why Environmental Impact Assessment? Environmental Impact Assessment Review, Process, and Key Definitions (Group Discussion, 15 min.)

Now that we have reviewed the EIA process and key terms, let's discuss why EIA is important.

- *First, why do we develop and use environmental impact assessments? Why do you think environmental impact assessment is important? What does the environmental impact assessment process help us to do?*

RECORD ON A BLANK FLIPCHART TITLED "WHY IS ENVIRONMENTAL IMPACT ASSESSMENT IMPORTANT?"

Possible responses:

- Include public in decision-making
- Helps avoid environmental degradation
- Helps to mitigate adverse environmental impacts
- Helps determine the most environmentally satisfactory projects
- Helps decision-makers consider all aspects of their decisions
- Encourages more sustainable development.

- *Those are reasons why environmental impact assessment itself is important, but why then is having an independent REVIEW of environmental impact assessments important? As long as the assessment is done, isn't that good enough? What is the value of involving reviewers?*

RECORD ANSWERS ON THE SAME OR NEW BLANK FLIPCHART.

- Possible responses:
- Provides unbiased review of environmental impact assessment - document to ensure sound decision making
 - Ensures significant impacts are not overlooked
 - Ensures affected public and other stakeholders are identified and appropriately involved
 - Ensures that public concerns are addressed
 - Ensures good decisions are made
 - Defines conditions for operation and approval of the project
 - Brings technical expertise to the decision-maker
 - Facilitates the decision-making process
 - Represents interests without a voice
 - Insures an independent process
 - Communicates results
 - Is a decision-maker (e.g., acceptance/denial, conditions for approval)
 - Coordinates public involvement.

Government and financial institutions which establish requirements for environmental impact assessment have established the independent reviewer function for many or all of these purposes. The scope of responsibility and authority for any particular reviewer situation will vary, but there are basic aspects to this job that are common no matter what the context. We will be looking at all aspects of what the job of the reviewer may entail.

PART B. Environmental Impact Assessment Definitions and Process (Group Discussion, 15 min.)

REVEAL AND REFER TO FLIPCHART #2-1 (ENVIRONMENTAL IMPACT ASSESSMENT DEFINITION). WALK THROUGH EACH COMPONENT. FOCUS ON THE PARTICIPANTS' PREVIOUS COMMENTS ABOUT A DECISION-MAKING PROCESS, THE INTERDISCIPLINARY NATURE OF THE ASSESSMENT AND REVIEW PROCESS, AND THE NEED FOR STAKEHOLDER INVOLVEMENT IN THE PROCESS. SOLICIT INPUT FROM THE PARTICIPANTS ON THE DEFINITION.

We speak of environmental impact assessment in terms of the DOCUMENT which contains an analysis of impacts, alternatives and mitigation opportunities. We also speak of environmental impact assessment in terms of the PROCESS.

POST FLIPCHART #2-1 IN A POSITION WHERE IT CAN BE REFERRED TO LATER ALONG WITH THE REVIEWER SITUATIONS, THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS, AND THE FOCUS FOR REVIEW FLIPCHARTS.

Let's move from this definition to look at the process. What is the process? How do we define key terms? What are the components of the process? These questions will be discussed in this session.

DISPLAY FLIPCHART # 2-2 (ENVIRONMENTAL IMPACT ASSESSMENT PROCESS).

DISTRIBUTE HANDOUT # 2-1 (DEFINITIONS) AND HANDOUT # 2-2 (ENVIRONMENTAL IMPACT ASSESSMENT PROCESS).

You should have two handouts. We will be referring to the definitions in handout # 2-1 as we get to key steps in the process in the environmental impact assessment flowchart, handout #2-2.

It is important to ensure we are all using the same terms to mean the same part of the environmental impact assessment, analysis, and documentation processes.

Take a few minutes to look through the flow chart and these definitions.

WHEN IT SEEMS THAT EVERYONE, OR ALMOST EVERYONE, HAS FINISHED READING THE HANDOUTS, RE-START THE GROUP DISCUSSION.

As you can see, many of the elements of environmental impact assessment are interrelated and there are several ways to lay out the process. However, the basic elements have been well established internationally. This is a generic international framework. The environmental impact assessment process in [participant's country] may be similar to, or

different from, this "generic" process. We will be discussing country-specific aspects of the process and environmental impact assessment review on Day 4 of this course. Until then, we will use this generic model for the training.

OVERVIEW: INTRODUCE ALL OF THE MAIN ELEMENTS AND ACTIVITIES AND ENCOURAGE THE PARTICIPANTS TO ANNOTATE THEIR COPIES OF THE FLOW CHART:

- ***Project Initiation:*** NOTE THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS CAN ALSO APPLY TO A PLAN, POLICY, OR PROGRAM.
- ***Project Implementation:*** *In the absence of the environmental impact assessment process, projects, plans, policies or programs proceed directly to project implementation, site preparation, construction, operation and eventually to closure, and none of the benefits of the environmental impact assessment process you identified earlier would be realized. So we have created this process in between to enable us to make decisions on alternatives from a variety of perspectives and also to identify opportunities to mitigate adverse impacts and to secure positive benefits from advance planning.*
- ***Decision to Proceed with an Environmental Impact Assessment:***

NOTE THAT THE DECISION TO PROCEED WITH AN ENVIRONMENTAL IMPACT ASSESSMENT IS BASED UPON EITHER ESTABLISHED LAW, POLICY, GUIDANCE OR A CASE BY CASE ASSESSMENT OF POTENTIAL FOR SIGNIFICANT IMPACT USING WHAT IS CALLED AN "INITIAL ENVIRONMENTAL IMPACT ASSESSMENT."

IDENTIFY HOW THE DECISION TO PROCEED WITH AN ENVIRONMENTAL IMPACT ASSESSMENT LEADS TO THE:

- *Preparation of the draft environmental impact assessment*
- *Solicitation of review and comment, and*
- *Preparation of the final environmental impact assessment.*

NOTE HOW THE ANALYSIS AND DOCUMENTATION THAT WILL BE EVALUATED BY THE REVIEWER SPAN ALL OF THE LAST THREE BULLETS AND HOW THIS ANALYSIS LEADS TO:

- *Decision-making on alternatives and mitigation*
- *The record of decision and a mitigation plan.*

The actual implementation of the project initiates a process of monitoring and follow-up where:

- *The mitigation activities and environmental impacts are monitored, and*

- *The policies or programs are reviewed.*

NOTE THAT SITE PREPARATION AND CONSTRUCTION DO NOT BEGIN UNTIL THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS IS COMPLETE.

BRIEFLY REVIEW KEY STEPS IN THE PROCESS AND IN THE DEVELOPMENT OF AN ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT.

- *What is meant by key terms such as "initial environmental impact assessment," "scoping," "mitigation," "alternatives," etc.?*

HAVE PARTICIPANTS CONSULT AND READ FROM THE DEFINITIONS IN THE HANDOUT AND ASK IF THEY ARE UNDERSTOOD.

POST THE PROCESS FLOWCHART ON THE WALL IN A VERY ACCESSIBLE PLACE. YOU WILL REFER TO IT FREQUENTLY THROUGHOUT THE COURSE.

Before we move on to discuss what the role of the reviewer is at each step in the process and describe the steps in more detail, are there any questions about the terms we are using and the general process we have described?

PART C. Reviewer Roles in Each Phase of the Process (Small Group Discussion, 20 min.)

Now that we have covered the general environmental impact assessment process, let us do an exercise to think about the roles reviewers might have throughout the environmental impact assessment process.

DISTRIBUTE HANDOUT # 2-3 (REVIEWER'S ROLES). ASSIGN SECTIONS OF THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS USING HANDOUT # 2-3 AS A GUIDE, GROUPED TO CORRESPOND TO NUMBERS OF PARTICIPANTS.

I need to divide you into pairs or groups of three (depending on the size of the group).

NAME THE GROUPS (1-10, OR DIFFERENT NUMBERS DEPENDING ON THE NUMBER OF PARTICIPANTS) AS YOU GO AROUND THE ROOM. KEEP THE GROUPS 1-2-3 OR 1-2 TOGETHER NEAR WHERE THEY ARE SEATED TO AVOID A MAJOR DISRUPTION.

On handout #2-3, you can see a listing of all the elements of the environmental impact assessment process that we have just briefly reviewed on the flowchart.

READ THROUGH THE LIST TO BE CERTAIN EVERYONE IS FAMILIAR WITH THE STEPS IN THE PROCESS AND REFER TO THE FLIPCHART OF THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS.

Each group is assigned separate elements of the process to focus on for this exercise and to report out your results. To do this, however, please discuss all elements of the environmental impact assessment process and identify whether there is a role for a reviewer. If there is a role, identify it. Your specific areas of focus should receive more concentrated attention, and you should be prepared to report your conclusions out to all of us.

- *Think about actual environmental impact assessment documents you have read*
- *Focus on all the roles you think a reviewer could have played during each phase of the process*
- *How might this change in each of the four different situations we discussed? Use side two of the handout to determine how your role would change under different reviewer situations.*

Have someone in the group record your answers, so that when we come back together again we can combine the answers of all of the groups. You will have 20 minutes for this discussion.

- *Are there any questions?*

CIRCULATE AND TALK TO THE GROUPS. CLARIFY ANY CONFUSION.

WHEN THERE ARE ABOUT 5 MINUTES LEFT IN THE EXERCISE, REMIND THE GROUPS TO COMPLETE THEIR WORK, INCLUDING RECORDING THEIR ANSWERS. INFORM THEM OF A SHORT (20 MINUTE) BREAK AT THIS POINT. ALLOW PARTICIPANTS TO KEEP WORKING IF THEY LIKE.

PART D. Report on Reviewer Roles (Group Discussion, 10 min.)

REFER TO THE FLOW CHART FLIPCHART (#2-2). FACILITATE A DISCUSSION ON THE REVIEWER'S ROLE DURING EACH PHASE OF THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS. ASK THE APPROPRIATE GROUPS TO COMMENT AS ASSIGNED FOR EACH STEP IN TURN AND THEN ASK THE WHOLE GROUP WHETHER THEY HAVE ANY ADDITIONS OR DIFFERENCES OF OPINION. REPEAT UNTIL ALL PHASES HAVE BEEN COVERED.

SUMMARIZE OVERALL COMMENTS AND IDENTIFY THE GENERAL PATTERNS AND THEMES THE GROUP HAS IDENTIFIED REGARDING THE REVIEWER'S ROLE. USE THIS OPPORTUNITY TO STRENGTHEN POINTS MADE EARLIER IN THE DAY (OR THE PREVIOUS DAY).

POINTS AND QUESTIONS TO COVER DURING DISCUSSIONS:

- *Does the reviewer's role formally begin with the beginning of the environmental impact assessment process, the decision whether to proceed with environmental impact assessment? With project initiation?*

- *At what points in the process does a proactive review situation involve a role that the other reviewer situations would not? For example, proactive review situations may involve keeping an eye out for new projects to bring project proponents into the process early. Other roles unique to the proactive role include participation in scoping, and deciding whether to proceed with an environmental impact assessment.*
- *At a minimum, reviewers are asked to review draft environmental impact assessments.*
- *In most settings, the reviewer is not the decision maker, but in some countries this is the role.*
- *A reviewer may or may not decide whether to proceed with an environmental impact assessment.*
- *What is different about reviewing an initial environmental impact assessment and a full blown environmental impact assessment?*

REFER PARTICIPANTS TO STUDENT TEXT SECTIONS 3.4.2 AND 3.4.3.

- *Initial environmental impact assessments are often distinguished by an internal rather than public process, and often do not involve exploration of alternatives. However, they can be very detailed, depending upon how they are used in the process.*
- *Some reviewers are asked to run the public participation and comment process, and public scoping process. What might that role entail?*
- *A reviewer may be in a position to identify or specifically require new data collection and compilation.*

Wrap up: The specific roles a reviewer has in decision-making differ based on the country, the organization, or even the specific situation for a particular project, plan, program, or policy that is being assessed. Additionally, who the reviewer has contact with may vary based on the country, organization represented, or situation. A reviewer may have no direct contact with the decision-maker, may interact with and make direct recommendations to the decision-maker, or may actually be the decision-maker him or herself. The Reviewer(s) is usually, but not always, different from the decision-maker(s) and the decision-making process within an organization. Regardless of the role, a reviewer can be very influential in the environmental impact assessment process by ensuring a comprehensive and accurate assessment in support of sound decision-making.

PART E. Reviewer's Context (Group Discussion, 15 min.)

The important role that reviewers play in the environmental impact assessment process will vary, and the quality of the review can be affected by the type of role the reviewer is in. Therefore, when you begin each job, or even each individual task, you should understand the context of your review. It is useful to characterize four contexts the reviewer must work within: the Legal, Institutional, Organizational, and Personal.

REVEAL THE TWO PREPARED FLIPCHARTS # 2-3 (UNDERSTANDING THE CONTEXT (1)) AND # 2-4 (UNDERSTANDING THE CONTEXT (2)). THEY SHOULD BE SET UP ON BOTH OF THE FLIPCHART STANDS AT THE FRONT OF THE ROOM SO THE RECORDER CAN RECORD ON BOTH.

Let us start our discussion with the Legal context. When you conduct a review, what do you have to understand about the legal context of the review?

- Possible responses:
- When environmental impact assessments need to be prepared
 - Who needs to prepare them
 - What needs to be included in an environmental impact assessment document
 - Whether public participation is required or optional
 - The required process for environmental impact assessment development
 - Whether there are requirements for identifying alternatives
 - The legal status of the "preferred" or "environmentally preferred" alternative.

RECORD PARTICIPANT RESPONSES IN THE SPACE PROVIDED.

On the last day we will talk specifically about the environmental impact assessment requirements in your country.

- *How about the Institutional context? What do you have to understand about that?*

- Possible responses:
- The institutions that are involved in the process and their roles
 - The authorities they have
 - The information and expertise that exists within and outside of government
 - The characteristics of the proponent's institution
 - The characteristics of the decision-maker's institution
 - The characteristics of the environmental impact assessment preparer's institution
 - The institution that must approve the environmental impact assessment (if any)
 - The institutions which are affected by the outcome of the environmental impact assessment
 - How key institutions relate and points of contact
 - The role the reviewer's organization has in environmental impact assessment development
 - The limits to your and your organization's authority.

- *How about the Organizational context within the reviewers organization? What do you have to understand about that?*

- Possible responses:
- The lines of authority within your organization
 - Technical expertise
 - The position and responsibility the reviewer has
 - The expectations of the reviewer's supervisors
 - Decision making and communication styles
 - How to obtain needed resources and expertise
 - The scheduled deadline for completion of the review
 - Contacts for assistance or information
 - The resources that are available to me through my organization
 - The resources that might be available to me through other organizations.

- *Finally, how about your Personal context? It is always the case that different people bring different knowledge, skills, and experiences to the job of a reviewer of environmental impact assessments? What do you have to understand about your personal context?*

- Possible responses:
- My personal strengths and weaknesses as a reviewer
 - My technical expertise
 - My communication style
 - My network of contacts and information sources.

- *Are there other things that you might need to understand to carry out an effective review?*

LINK THE REVIEW CONTEXT WITH THE REVIEW SITUATIONS DISCUSSED EARLIER. ENCOURAGE PARTICIPANTS TO REALIZE THE STRENGTH OF THEIR OWN SKILLS AND ABILITIES.

You can do an effective review in a "solo" situation if you understand the context that surrounds the review. You can also turn a situation into one where you are "empowered" when you understand the resources available to you. You may be called upon to carry out the role of a "lead" or "associate" reviewer working with a lead reviewer, or even be able to take advantage of a "proactive" situation if you can fully access the existing resources and influence the process.

PART F. Reviewer's Focus (Group Discussion, 15 min.)

We have reviewed the environmental impact assessment process and reviewer's role in that process, different reviewer situations, and the context for review. Now let's discuss the focus of the review process, what a reviewer must look for in carrying out the review. For example, if I were to give you an environmental impact assessment document to review, what are the important things to consider?

ENCOURAGE AN OPEN DIALOGUE FOR A MINUTE OR TWO BEFORE REVEALING FLIPCHART # 2-5 (WHAT IS THE FOCUS DURING AN ENVIRONMENTAL IMPACT ASSESSMENT REVIEW?).

Here is a list of six things that can be critical to a review and deserve the focus of a reviewer's attention. The course is structured around them.

SPEND A FEW MINUTES ON EACH OF THE SIX TOPICS. LINK THE ITEMS THEY RAISED DURING THE EARLIER DISCUSSION. PROVIDE EXAMPLES OF WHEN THESE ITEMS ARE NOT ADDRESSED BY THE REVIEW, WHEN THE DOCUMENT IS NOT COMPLETE, SIGNIFICANCE IS IMPROPERLY CATEGORIZED, INTERNAL LOGIC IS FLAWED, ETC.

Completeness and Coverage

- *When reviewing an environmental impact assessment document, why is it important to focus on completeness and coverage? Can anyone think of an example where a failure to be complete made a significant difference in the outcome?*

Significance

- *Why is review for significance of impacts important to a reviewer?*

DISCUSS THE VALUE OF INDEPENDENT REVIEW FOR "SIGNIFICANCE," FOR "INSIGNIFICANT ISSUES," TO DECISION MAKING.

Adequacy

- *If the environmental impact assessment document does not adequately make the critical points you feel should be made, it is your duty to make your opinion known.*

Integrity

- *What might concern a reviewer about the integrity of the process? Of the analysis?*

DISCUSS THE IMPORTANCE OF A PROCESS AND ANALYSIS HAVING INTEGRITY. WHAT HAPPENS WHEN THE DATA SAY ONE THING AND THE CONCLUSIONS SAY SOMETHING ELSE? WHEN SIGNIFICANT ISSUES ARE TREATED AS INSIGNIFICANT? WHEN CONSIDERATION OF ALTERNATIVES IS HIGHLY BIASED IN FAVOR OF A SPECIFIC PROPOSAL? WHEN REQUIREMENTS FOR PUBLIC INVOLVEMENT ARE MET IN INEFFECTIVE WAYS?

Accuracy

- *Why is it important for a reviewer to ensure that the various assertions, assumptions, models, and findings in an environmental impact assessment document are accurate?*

IT IS NOT ENOUGH FOR ALL SIGNIFICANT ISSUES AND IMPACTS TO BE ADDRESSED AND CONSIDERED IN A LOGICAL MANNER, THEY MUST BE ADDRESSED IN AN ACCURATE WAY. LEAD A DISCUSSION ABOUT THE ACCURACY OF THE ANALYSIS.

Influence

- *A reviewer must be able to deliver comments and communicate in a manner that will influence the preparation of a sound assessment and support a desirable outcome from the environmental impact assessment process.*

ENCOURAGE THE PARTICIPANTS TO DISCUSS THEIR POTENTIAL INFLUENCE AS A REVIEWER. PARTICULARLY IN THE EARLY STAGES OF ENVIRONMENTAL IMPACT ASSESSMENT REVIEW, WHEN THEY MAY HAVE THE OPPORTUNITY TO BECOME INVOLVED WITH THE ASSESSMENT AND INFLUENCE ITS DIRECTION AND OUTCOME.

NOTE THAT IT CAN BE MUCH LESS USEFUL TO WAIT UNTIL A DOCUMENT IS NEARLY COMPLETED BEFORE OFFERING COMMENTS OR CRITIQUES. REVIEWERS CAN OFTEN FIND THEMSELVES IN A POSITION TO INFLUENCE A PROJECT PROPONENT, AND SUCH OPPORTUNITIES SHOULD NOT BE IGNORED.

We will use these six items throughout our discussions for the next 4 days. We will consider the review process for each element of the environmental impact assessment and try to address what coverage, significance, adequacy, integrity, accuracy, and influence can mean.

POST FLIPCHART # 2-5 ON THE WALL IN A VERY ACCESSIBLE PLACE. YOU WILL FREQUENTLY REFER TO IT THROUGHOUT THE COURSE.

Environmental Impact Assessment Document Outline

Now that we have discussed a reviewer's role, the environmental impact assessment process and the context and focus of your review, I would like to discuss what you might see when looking at an environmental impact assessment document.

Let's go back to the environmental impact assessment flowchart. Look at the phases and then below the phases to the types of analyses and documentation. Where will we find information about these phases in an environmental impact assessment document?

- Possible responses:
- Table of contents will lead you to much of what you seek
 - Corresponding chapters should exist for purpose and need, scoping, alternatives, environmental setting, environmental impacts, and the mitigation plan
 - Data that has been collected and compiled can often be found in appendices, as well as summarized throughout the document.

All environmental impact assessment documents may not lay out the chapters in just this way. They may use other titles, or combine sections. What we are trying to do here is to give you a sense of how to navigate through an environmental impact assessment document, and how to understand what you are reading in the context of the overall process that produced the document in its various drafts.

DISPLAY FLIPCHART # 2-6 (ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT CONTENTS.)

QUICKLY REVIEW THE COMPONENTS OF THE ANALYSIS AND DOCUMENTATION.

RELATE THE FLOW CHART TO THE FLIPCHART LIST OF DOCUMENT CONTENTS.

Again, there are different requirements for environmental impact assessment document contents in different countries, and we will be talking about your specific requirements on the last day. But many (at least one) of the documents we will be working with later will include the contents that are presented on this flipchart.

Several references have been provided in the Resource Manual that will assist you in understanding the overall environmental impact assessment process and the country-specific laws that apply:

1.2 Overview of the Environmental Assessment Process

4 Country-Specific Laws/Background

PART G. Good Reviews (Group Discussion, 10 min.)

TITLE A BLANK FLIPCHART "WHAT IS A GOOD REVIEW?"

So far we have identified four situations in which reviewers find themselves, discussed the phases and definitions of the environmental impact assessment process, and identified the reviewer's role, context and focus in each phase of the process.

- *Given our discussions and your own experiences as a background, what do you think constitute the elements of a good review?*

RECORD RESPONSES ON BLANK FLIPCHART.

- Possible responses:
- A comprehensive and accurate analysis of the issues
 - A balanced, objective evaluation of an environmental impact assessment
 - One that communicates effectively with proponents, decision makers, and others
 - One that identifies and adequately considers all alternatives and impacts
 - One that identifies all deficiencies and makes specific recommendations for addressing them
 - One that clearly identifies and focuses on major or significant issues and justifies the characterization of insignificant ones.

As we go on through the course we can add to this at any time.

- *Before we go on, are there any questions, comments, additions, subtractions, etc. about what we have covered so far?*

IF THERE ARE QUESTIONS, COMMENTS, ETC. TRY TO GET THE GROUP TO ANSWER THEM UNLESS THEY ARE CLEARLY DIRECTED AT YOUR PERSONAL EXPERIENCE.

INTRODUCE THE NEXT SESSION, AND NAME THE FACILITATORS WHO WILL BE IN CHARGE.

We are now going to take a one hour break for lunch. Please return promptly at [STATE TIME]. When we return, our next facilitator, [INTRODUCE THE NEXT FACILITATOR], will discuss the variety of review approaches that can be used for over-all environmental impact assessment review and scoping. In this session, we will go over step-by-step approaches to reviewing the EIA document and the scoping section of the document in particular.

NOTE: THE FLIPCHARTS "ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT CONTENTS" AND "WHAT IS A GOOD REVIEW" SHOULD BE LEFT UP ON THE EASELS. KEEP THEM THERE INTO THE BEGINNING OF THE NEXT SESSION IN ORDER TO CONCEAL THE NEXT PREPARED FLIPCHARTS FOR THAT SESSION UNTIL THE FACILITATOR IS READY TO USE THEM.

SESSION 3: REVIEW APPROACH FOR OVERALL ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT AND SCOPING

MATERIALS:		TIME:	2 hours and 5 minutes
Flipcharts:	2-6 Environmental Impact Assessment Document Contents	SETTING:	Group discussion
	3-1 Road Map for Overall Environmental Impact Assessment Document Review (1)		Small group exercise
	3-2 Road Map for Overall Environmental Impact Assessment Document Review (2)		
	3-3 Road Map for Scoping Review		
	3-4 Tools and Techniques		
	3-5 Advice to Reviewers		
Handouts:			
3-1 Supplemental Table of Contents for Case Studies			
3-2 Instructions for Overall and Scoping Review			
Other:			
Case Studies			
Resource Manual (e.g., 1.3.3; 1.3.4; 1.5.1; 1.5.2; 1.5.3; and 2.2)			
TEXT:			
3.4 Reviewer's Role in Each Element of the Environmental Impact Assessment Process			
3.4.2 Scoping: Environmental Impact Assessment Document Development			
4.1.1 Reading an Environmental Impact Assessment: What to Look for			
PURPOSE:			
<ul style="list-style-type: none"> ● To develop approaches to overall review ● To practice overall review ● To develop approaches to scoping review ● To practice scoping review 			
TIME BREAKDOWN:			
Part A	Introduce Case Studies	Group Discussion	05 minutes
Part B	Approach to Overall Review	Group Discussion	10 minutes
Part C	Identifying Significant issues: Scoping	Group Discussion	10 minutes
Part D	Overall and Scoping Case Study Review (Break Included)	Individual/Group Exercise	75 minutes
Part E	Report on Overall and Scoping Review	Group Discussion	15 minutes
Part F	Tools and Techniques and Advice to Reviewers	Group Discussion	10 minutes

NOTE: THE FLIPCHARTS "ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT CONTENTS" AND "WHAT IS A GOOD REVIEW" SHOULD BE UP ON THE FLIPCHART STANDS FROM THE LAST SESSION AND USED AS REFERENCES DURING THE NEXT SESSION IF NEEDED (I.E., WHERE IS SCOPING FOUND). ALSO, IT IS NECESSARY TO KEEP FLIPCHART # 3-1 "ROAD MAP FOR OVERALL ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT REVIEW" COVERED UNTIL YOU ARE READY TO USE IT.

PART A. Introduce Case Studies (Group Discussion, 5 min.)

What is a reviewer without something to review? I have before me four (#?) different draft environmental impact assessments for a range of different project types. They include: [NUMBER] examples that have been selected from the United States and [NUMBER] from [HOST COUNTRY].

BRIEFLY SUMMARIZE THE SUBJECT OF EACH DRAFT ENVIRONMENTAL IMPACT ASSESSMENT BY IDENTIFYING THE TITLE AND THE PROPOSED ACTION ASSOCIATED WITH EACH.

We are going to assign you to one of these draft environmental impact assessment documents for the remainder of the course to gain "hands-on experience" reviewing environmental impact assessment documents. However, you will be exposed to the broad range of situations presented by all of the case studies during discussions among all participants when we report out results of our reviews. At the end of the course, you can keep the final environmental impact assessments for all (#) case studies for future reference to add to your personal library and reference material.

We ask that you not mark up these draft documents and that you return them to us at the end of the course. We will be distributing a full packet of "stick-on" note paper for you to use to annotate your draft to help with your review and comment.

During your successive reviews in different sessions, you will have the opportunity to apply the concepts and approaches introduced at the beginning of the sessions. The environmental impact assessments we will be using cover a range of project types, topics and issues typically presented to environmental impact assessment reviewers. They are neither exemplary environmental impact assessments, nor are they so clearly flawed that they would have resulted in an obvious cancellation of the project. They are realistic for what you can reasonably expect to encounter.

PART B. Approach to Overall Review (Group Discussion, 10 min.)

Before I distribute and assign draft environmental impact assessment documents, we are going to discuss:

- 1) how a reviewer can conduct an "overall" review; and*

2) *how a reviewer can review whether "scoping" was carried out properly.*

You will then have an assignment that will help you to get acquainted with your documents.

Let's first discuss what is involved in reviewing the overall document.

REMOVE THE "WHAT IS A GOOD REVIEW?" FLIPCHART FROM LAST SESSION AND POST IT ON THE WALL. TITLE A BLANK FLIPCHART "APPROACHES TO OVERALL REVIEW."

PICK UP ONE OF THE ENVIRONMENTAL IMPACT ASSESSMENTS.

- *How can you approach the overall review, that is, after you weigh it, touch and feel it, to see how hot the issues and impacts are? What might you look at when you open it up and start to review the document?*

RECORD RESPONSES ON THE FLIPCHART.

- Possible responses:
- Table of contents, how is it organized?
 - Who prepared it?
 - What is the context of my review?
 - Does it follow an appropriate format or structure?
 - Are all the referenced materials included?
 - What is the main focus of the proposed project?
 - Does it appear to cover the expected elements and issues?
 - Are potentially significant issues identified?
 - Are there any obvious omissions?
 - Who are the interested and affected parties relevant to the proposed project?

- *After you have become oriented with the document's structure and contents, what specific questions do you need to consider to plan your detailed review?*

Possible responses:

- What type of management plan do I need?
- What additional information or resources do I need to conduct the review?
- Are there individuals who I need to involve in the review due to the need for specialized expertise?
- Are there opportunities to become proactively involved with the proposed project?
- How am I expected to communicate the results of my review?
- To whom am I communicating my analysis?
- How much time I have for the review?

- *Is it appropriate for you to document any of your observations and analyses at this point in the review? How could documentation of your thoughts at this point be helpful during the detailed review?*

Possible responses:

- To keep track of the key issues as I read through a complex document
- Elements of the document (e.g., environmental impact, mitigation) that might not address the key issues at all
- Questions that I have from my overall review.

ENCOURAGE PARTICIPANTS TO REALIZE THE VALUE OF BEGINNING THE DOCUMENTATION PROCESS FROM THE BEGINNING OF THE REVIEW AND TO AMEND AS MORE DETAILED ANALYSIS IS CONDUCTED.

The process you have described and questions you have considered are important to remember when conducting your overall review of the document. They provide a framework for your detailed review of each element of the environmental impact assessment.

REMOVE THE "ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT CONTENTS" FLIPCHART AND POST IT ON THE WALL. THIS SHOULD REVEAL FLIPCHART # 3-1 (ROAD MAP FOR OVERALL ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT REVIEW (1)). UNDERNEATH FLIPCHART # 3-1 IS FLIPCHART # 3-2 (ROAD MAP FOR OVERALL ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT REVIEW (2)). REMOVE FLIPCHART # 3-2 AND PLACE IT ON THE OTHER STAND SUCH THAT FLIPCHART # 3-1 IS ON THE LEFT STAND AND FLIPCHART # 3-2 IS ON THE RIGHT STAND. THEY ARE TO BE VIEWED SIMULTANEOUSLY.

When developing this course, we asked a group of experienced environmental impact assessment reviewers the same questions we have just discussed. This list represents a summary of the different approaches they used when conducting an overall review of an environmental impact assessment document. We have called it a "road map for overall review of an environmental impact assessment document." The concept of a "road map" will be used throughout the course to provide you with enough structure so that you can avoid getting lost. Given the size and detail in the typical environmental impact assessment, it is very easy to lose sight of what is and is not important.

Let us look at this prepared road map and see how it compares with the points you came up with yourselves.

RECORD PARTICIPANT ADDITIONS AND MODIFICATIONS TO THIS PREPARED FLIPCHART.

I will post this road map (and the others we create) for your use during the review of your case studies. It can also be found in Section 4.1.1 of your Student Text along with other materials regarding the role of the reviewer. We will be referring to those materials as we move through the course.

REVIEW EACH OF THE ITEMS IN THE LIST.

POINTS TO MAKE:

Review tables of contents and executive summary: *You can learn a lot from a table of contents and from an executive summary. Reading both and thinking about the key issues you think will apply to the proposed project, prior to wading into the bulk of the document itself, can help you avoid being sidetracked by great detail on marginally important issues.*

Scanning: *It is generally useful to get some overall understanding of a document before you try to analyze it in detail. In conducting an overall review, try to develop an understanding of the proposed project, who and what would be affected by the proposed project, the major concerns, major impacts, and major issues with the document.*

Review of each successive element of the environmental impact assessment process: *We will be reviewing each successive element during the course and then have an opportunity to employ all of these approaches in an integrated way on the third day when we review the draft environmental impact assessment in its entirety.*

Use of Checklists: *Use of checklists is another important way to stay focused on what is important. A useful review checklist can be found in Appendix A to the Student Text. We will also be distributing topic-specific checklists to you throughout the course.*

Logic and consistency: *Even when looking at an environmental impact assessment for the first time, it can be very valuable to check for logic and consistency within the document. For example, if the proposed project has the potential to cause damage to an important natural area, is there an emphasis on those impacts and possible mitigation measures in the assessment?*

Systematic approach: *During overall review, try to identify areas where the assessment is incomplete or inadequate, where the significance of the proposed project is unsupported, unclear, or simply ignored, and where there is a lack of integration between related parts of the assessment.*

Perspectives of interested and affected parties: *Both project proponents and reviewers have their own personal opinions and biases. It is important to work hard to identify and understand the perspectives of all interested and affected parties.*

Compare document to other environmental impact assessments: *One of the best ways to learn a lot about a document during overall review is to compare it to other environmental impact assessments, especially those written for similar projects. Are there any obvious omissions or additions from one to another? Why?*

Supporting decision-making: *The ultimate purpose of conducting an environmental impact assessment is to support the decision-making process. Ask yourself: will the document you are reviewing do that? What would need to change to make it more supportive of the decision-making process?*

PART C. Identifying Significant Issues: Scoping (Group Discussion, 10 min.)

In the previous exercise, we gained a general knowledge and idea about the environmental issues associated with the project. Now we will begin to look at the document in greater detail. Identifying significant issues is part of the purpose of scoping so documentation of scoping is particularly useful to reviewers. It may also be an element which needs to be reviewed.

- *Can anyone remind us what scoping is?*

POINT TO SCOPING ON THE ENVIRONMENTAL IMPACT ASSESSMENT FLOWCHART.

Scoping is the process of identifying what needs to be included in an environmental impact assessment and at what level of detail. It involves determining the range of issues to be addressed, the significance of these issues, and which issues can be eliminated if they are not potentially significant. The scoping portion of the document, if it is a separate section, should:

- 1) *Provide an overview of what is potentially significant and what is not;*
- 2) *Identify the stakeholders*
- 3) *Identify what impacts will be assessed and the geographic area to be assessed;*
- 4) *Identify the alternatives that will be considered.*

Above all, scoping should bring the proposed project into focus. Scoping may or may not involve some level of public participation or inquiry involving stakeholders; and, as we discussed earlier, it may or may not involve the reviewer.

We want to cover all of the contexts for review, so let's discuss in-turn:

- *First, where scoping is legally required and subject to public or agency review through documentation in the environmental impact assessment document*
- *Second, where scoping is required to be part of the process, but need not be documented*
- *Third, where scoping is not specifically required or documented.*

POINT OUT THE LEGAL CONTEXT AGAIN AND NOTE THAT BEFORE A REVIEWER BEGINS HIS OR HER JOB, THE ABOVE IS THE KIND OF CONTEXT INFORMATION THAT HE OR SHE SHOULD HAVE.

Let's first discuss what a reviewer might look for if scoping is a specific requirement of environmental impact assessment. Let's use our list for the focus of environmental impact assessment review and go through it.

REFER TO THE "REVIEWER'S FOCUS" FLIPCHART (#2-5) FROM SESSION 2.

- *If scoping is required and should be documented, then what should the reviewer consider to ensure it was complete?*

USE A BLANK FLIPCHART TITLED "APPROACHES TO SCOPING REVIEW" TO RECORD DISCUSSION ON THINGS TO CONSIDER TO DETERMINE COMPLETENESS.

- Possible responses:
- Scoping conducted and documented
 - All of the potentially significant issues identified
 - Process to identify issues as significant documented
 - Issues that are potentially less significant identified
 - Potentially significant issues the same as the ones the reviewer identified during overall review
 - All of the interested and affected parties are identified
 - Omissions (e.g., issues, interested parties), if any, are identified

- *In what ways might the scoping portion of an environmental impact assessment document be inadequate?*

Possible responses:

- Key issues not brought into focus
- Important stakeholders not identified/consulted
- Significant issues and impacts ignored or inadequately addressed (e.g, the human environment or the natural environment insufficiently addressed)
- Insignificant issues not identified or a justification not provided to support their dismissal
- Geographic area not adequately identified or described
- Insufficient detail to define the spatial and temporal scope of analyses required for each resource
- Sufficient range of alternatives not considered.

- *What would a reviewer look for if scoping is not required, or not required to be documented?*

Usually, some scoping is done to prepare an environmental impact assessment even if not required. However, it may be incomplete or inadequate. One of the jobs of the reviewer, as we discussed earlier, is to ensure that the perspectives of all of the stakeholders are taken into account in the assessment that is conducted. If scoping is not required or is not documented, it is important for reviewers to identify for themselves all of the stakeholders and to incorporate their perspectives in the review.

- *What other things might you want to know about the context for your review of scoping?*

Possible responses:

- Legal considerations for what will be required to be done and what must be documented
- Institutional or organizational requirements expressed in policy statements or guidance that encourage a certain approach or level of detail
- Personal needs to learn more about how scoping activities are planned and conducted.

Let us see how your thoughts on scoping review compare with those of other environmental impact assessment reviewers.

POST FLIPCHART #3-2 IN A LOCATION WHERE ALL OF THE ROAD MAP FLIPCHARTS FROM SESSIONS 3 - 10 CAN BE POSTED AND EASILY REFERENCED BY THE PARTICIPANTS AND FACILITATORS IN DURING SUBSEQUENT BREAK OUT SESSIONS.

REVEAL FLIPCHART # 3-3, ROAD MAP FOR SCOPING REVIEW. READ EACH ELEMENT TO THE PARTICIPANTS.

- *How does our list compare to theirs?*

AMEND THE FLIPCHART WITH ANY ADDITIONAL IDEAS.

This Road Map, as well as further information about overall environmental impact assessment review, can be found in your Student Text in Section 4.1.1.

PART D. Overall and Scoping Case Study Review (Individual Review, 45 min./ Small Group Review, 30 min., break included)

Now we're going to give you a chance to put some aspects of the two road maps we have discussed in this session into practice by conducting a brief review of your assigned environmental impact assessment document by 1) scanning it for significant issues, and 2) reviewing how scoping was done by the preparer of the environmental impact assessment.

The small groups that are established during this session will be used for the next several sessions, sessions 3 through 8. If anyone would strongly prefer an experience in a particular topic, or if the selection process has distributed expertise inequitably, we can arrange to switch assignments among particular individuals so we do not create an imbalance in the group sizes or areas of expertise. Also, I want to encourage those of you who work closely together on a regular basis to have an opportunity to get to know others in the course by taking on different environmental impact assessment case studies.

We will use a similar structure for each case study review in this session and in the sessions during the next two days. For each topic, we will discuss a particular component of the environmental impact assessment analysis and documentation. We will then develop approaches to reviewing the environmental impact assessment document for that component, and review our road map and any relevant tools and techniques. Using our case studies and small groups of participants, we will use the approaches we have discussed to conduct a review of the documents we have. We will then share our findings and discuss the successful approaches used, the range of issues we identified, and what else might be observed during the review of this element of the environmental impact assessment document. We will also discuss how our review approach might differ in the different situations we find ourselves in as reviewers.

DISTRIBUTE THE CASE STUDY DOCUMENTS SUCH THAT EACH QUARTER OF THE CLASS RECEIVES ONLY ONE OF THE FOUR CASE STUDIES. ENSURE THAT A ROUGHLY EQUAL NUMBER OF PARTICIPANTS ARE ASSIGNED TO EACH OF THE FOUR CASE STUDIES.

DISTRIBUTE HANDOUT 3-1, SUPPLEMENTAL TABLE OF CONTENTS FOR CASE STUDIES.

DISTRIBUTE HANDOUT 3-2, INSTRUCTIONS FOR OVERALL AND SCOPING REVIEW.

I am also handing out an outline of each of the documents to help you locate relevant materials for this and future exercises. I am also handing out instructions for this session.

First, I would like you to gather into small groups of individuals that have been given the same case study.

EACH OF THE CASE STUDY GROUPS SHOULD BE ASSIGNED A CORNER, OR SECTION, OF THE ROOM TO GATHER AROUND. EACH AREA SHOULD BE PROVIDED WITH A FLIPCHART EASEL, FLIPCHART PAPER, AND MARKERS. DIRECT THE PARTICIPANTS TO THE APPROPRIATE SECTION OF THE ROOM FOR THEIR CASE STUDY.

Since you will be working in these groups for at least the next two days, you should move all of your materials with you so you have access to all necessary references.

For the next 45 minutes, I would like you to individually review the environmental impact assessment document that you were provided. Your goal should be to get a general sense of the whole document and to identify the potentially significant issues posed by the proposed project and adequacy of scoping; try not to focus exclusively on one section for all of the available time. For the purposes of the scoping review you are about to conduct, let's assume that scoping is a required element and that it must be documented in the review.

You then will have 30 minutes to conduct this review in your small groups. You will need to do several things during that time. First, your small group will need to gather together to discuss your observations and questions, and share your ideas. Second, your small group will need to prepare a group report. A consensus of major points you want to make about your review of this element. A full consensus may not be reached on all issues, and alternative points of view should be welcomed and also considered as part of the report. Does anyone have any questions?

ANSWER ANY QUESTIONS THE PARTICIPANTS HAVE ON THE PROCESS THEY ARE TO FOLLOW.

Handout # 3-2 has the basic steps you are to follow during this review and the key questions your report should address:

- *What do you think are the significant environmental issues posed by this proposed project?*
- *Was scoping addressed?*

- *Are the major issues identified? Which ones were ignored?*
- *Were the issues you identified the same as the ones identified in the document?*
- *Are less significant issues identified?*
- *Who has been identified as an interested or affected party?*
- *Were there any obvious omissions in issues identified? In the parties identified?*

It is now _____. You and your small groups will have until _____ (75 minutes from now) to review this component of the environmental impact assessment, discuss your observations and questions, and prepare your reports. You should use the "Road Map" we created to help guide your review and the topics and issues you consider. I will announce when 45 minutes have passed so you will know when you should be moving into your small groups to structure your remaining time.

INFORM PARTICIPANTS THAT THEY MAY TAKE A BREAK AT THE END OF THEIR INDIVIDUAL REVIEW, IF TIME REMAINS, BEFORE THE SMALL GROUP REVIEW.

DURING THE ACTIVITY, YOU SHOULD DO THE FOLLOWING THINGS:

- MONITOR TIME AND EITHER MAKE VERBAL ANNOUNCEMENTS OF OR POST THE TIME REMAINING
- CIRCULATE TO ENSURE SMALL GROUPS FOCUS ON OVERALL AND SCOPING REVIEW
- CLARIFY ANY CONFUSION THE PARTICIPANTS HAVE ABOUT THE INSTRUCTIONS OR THE REVIEW PROCESS
- DETERMINE THE ORDER OF THE SMALL GROUP'S REPORT PRESENTATIONS
- TEN MINUTES BEFORE THE END OF THE ACTIVITY, ANNOUNCE THE TIME REMAINING
- FIVE MINUTES BEFORE THE END OF THE ACTIVITY, DIRECT EACH GROUP TO ELECT A SPOKESPERSON.

PART E. Report on Overall and Scoping Review (Group Discussion, 15 min.)

It is time to re-convene and discuss the results of your overall review and your review of scoping. We are going to have each group BRIEFLY summarize their major findings from reviewing their document. Each group should present for no more than THREE MINUTES. We are just trying to get a basic idea of your findings here.

HAVE EACH GROUP PRESENT THEIR FINDINGS FOR UP TO THREE MINUTES. ENCOURAGE THE PARTICIPANTS TO ASK QUESTIONS FOLLOWING EACH REPORT.

- *Even in this short period of time, how well were you able to develop an initial sense of significant issues? What was most useful to you in doing that?*
- *Were the road maps helpful? Did anyone use or refer to them? How would you modify them to better reflect your approach to the review?*

UPDATE ROAD MAPS BASED ON PARTICIPANT COMMENTS.

- *What do your observations about the scoping element mean to you as a reviewer? How will your scoping review aid your review of the remainder of the document?*

Possible responses:

- Identification of interested and affected parties
- Identification of significant issues.

- *How will the documentation you have begun be useful for the remainder of the review?*

Possible responses:

- Follow key themes throughout the document
- Ensure that issues identified here are adequately addressed later
- Ensure that parties identified here are adequately considered later
- Identify how significant issues identified here are supported by the analysis throughout the document.

PART F. Tools and Techniques and Advice to Reviewers (Group Discussion, 10 min.)

In addition to introducing a road map for each element of review, we are also going to introduce tools and techniques that can be used to help you conduct environmental impact assessment review, including review of scoping. There are a number of tools and techniques that can be used to help determine if an environmental impact assessment document is complete, adequate, of sufficient quality, focused on significant issues, preserves the integrity of the process, etc. Each reviewer develops and uses his or her own most effective tools and techniques for environmental impact assessment review during the course of their career. There are many different tools in the tool box. Any one person will apply some or all depending upon personal preference and the nature of the environmental impact assessment. However, there are certain tools and techniques that have been found to be particularly effective.

REVEAL FLIPCHART # 3-4 (TOOLS AND TECHNIQUES):

Checklists or narrative guidance can be particularly useful for scoping. Please turn to page 2.2-1 in the Resource Manual.

In addition to checklists, reviewing other environmental impact assessment documents to see what was done in different scenarios is also very helpful.

- *How can you ensure the integrity of your review?*

Possible responses:

- Keeping notes and investigating questions and issues
- Following requirements, policy, and guidance consistently throughout the document
- Reviewing other review documents to see how findings were expressed

Requirement, policies, checklists, and other documents are items that you will need to assemble for your specific use in reviewing documents. Throughout the course, we will introduce you to some specific tools such as checklists for review of certain elements of environmental impact assessment documents, or memos and issue papers that identify a range of possible circumstances, considerations, and outcomes. Use the road map we developed earlier to focus your evaluation. Afterwards we will discuss the value of developing tools specific to your circumstances that suit the needs of your reviews.

POST THE TOOLS AND TECHNIQUES FLIPCHART SO IT WILL BE VISIBLE THROUGHOUT THE COURSE.

LEAD A DISCUSSION ON THE DIFFERENT REQUIREMENTS, POLICIES AND GUIDANCE THAT MIGHT BE APPLICABLE FOR THE REVIEWER AND HOW THEY MIGHT ASSEMBLE THESE DOCUMENTS. ALSO DISCUSS OTHER VALUABLE TOOLS SUCH AS CHECKLISTS AND ASK WHAT TYPES OF QUESTIONS THEY MIGHT INCLUDE ON A CHECKLIST TO ENSURE THEIR OWN CONSISTENCY, OR THEIR CONSISTENCY WITH OTHER REVIEWERS.

The Tools and Techniques flipchart can also be found in Section 4.2.1 of the Student Text.

CLOSE THE DISCUSSION WITH A REVIEW OF THE MATERIALS INCLUDED IN THE RESOURCE MANUAL FOR THE COURSE. SOME INFORMATION THAT MAY BE INCLUDED ARE DOCUMENTS OR MEMOS ON THE CONDUCT OF SCOPING AS PART OF THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

- 1.3.3 TECHNIQUES FOR COMMUNICATING WITH THE PUBLIC
- 1.3.4 IDENTIFICATION OF ISSUES
- 1.5.1 SCOPING
- 1.5.2 CEQ SCOPING GUIDANCE
- 1.5.3 DEFINING THE SCOPE OF ALTERNATIVES IN AN ENVIRONMENTAL IMPACT STATEMENT
AFTER *CITIZENS AGAINST BURLINGTON*
- 2.2 ENVIRONMENTAL IMPACT ASSESSMENT EVALUATION CHECKLIST

DISCUSS HOW THIS TYPE OF INFORMATION MAY BE USEFUL TO A REVIEWER TO UNDERSTAND THE DIFFERENT CONSIDERATIONS THAT HAVE BEEN MADE WHILE CONDUCTING THE ANALYSIS AND DEVELOPMENT OF THE DOCUMENT.

Advice to Reviewers

Now we're going to spend a few minutes talking about some "lessons learned" for this session, such as what to watch out for in scoping review.

REVEAL FLIPCHART # 3-5 (ADVICE TO REVIEWERS).

First, I would like you to give me your ideas on what kinds of things you would tell other reviewers to "watch out for" when reviewing this element of an environmental impact assessment document. Those that go beyond what we covered in our road maps we will add to our "Advice to Reviewers" list. We begin this list now, and will add to it during each session.

LEAD THE DISCUSSION TO IDENTIFY THE THINGS THAT CAN POSE PROBLEMS FOR AN ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT REVIEWER. RECORD THE PARTICIPANTS' COMMENTS ON THE FLIPCHART. REFER FREQUENTLY TO THE ROAD MAP AND THE "REVIEWER'S FOCUS" FLIPCHART FROM SESSION 2.

Now I would like to ask you how you think your review of scoping would have gone in each of the other review situations we discussed earlier. Specifically,

- *What if you had been in a position to be a proactive reviewer? What if the project proponent had come to you, or you to them, early in the process — say, prior to scoping. What if you were able to make suggestions about the scope of the proposed project, and to discuss scoping with them?*
- *What resources or sources of information would you have wanted to conduct your review if you were to be empowered?*

- *Think about what organizations and experts you would have wanted to engage in the review process with you if you were in the position of a "lead" reviewer? You will have an opportunity to engage as a lead reviewer in Session 8.*

GET PARTICIPANTS THINKING ABOUT THESE DIFFERENT REVIEWER SITUATIONS. DO NOT RECORD RESPONSES ON A FLIPCHART.

It is important to think about these different reviewer scenarios, because you may find yourself in any or all of them for different projects or at different points in your career.

INTRODUCE THE FACILITATOR WHO WILL LEAD THE PARTICIPANTS THROUGH THE NEXT SESSION, REVIEWING AN ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT FOR PURPOSE AND NEED AND ALTERNATIVES. ANNOUNCE THE BREAK AND THE STARTING TIME FOR SESSION 4 AND ANY OTHER NECESSARY LOGISTICAL ARRANGEMENTS OR COMMENTS.

We are now ready to go to the first element of the documentation and analysis -- purpose and need and, related to this, the alternatives of the proposed action. [NAME OF FACILITATOR] will lead us through this.

SESSION 4: REVIEW OF PURPOSE AND NEED AND ALTERNATIVES**MATERIALS:**

Flipcharts: 4-1 Project/Purpose and Need/
Alternatives
4-2 Alternatives
4-3 Road Map for Purpose and
Need and Alternatives Review (1)
4-4 Road Map for Purpose and
Need and Alternatives Review (2)

TIME: 1 hour and 55 minutes

SETTING: Group discussion
Small group exercise

Handouts: 4-1 Instructions for Purpose and Need and Alternatives Review

Other: Case Studies
Resource Manual (e.g., 1.3.1; 1.3.2; 1.3.5; 1.5.3)

TEXT:

2.2.2 Development of Alternatives

2.2.3 Assessment

4.2 Purpose and Need

4.3 Project Alternatives

PURPOSE:

- Learn to evaluate the purpose and need statement
- Learn to evaluate the adequacy of project alternatives
- Learn to evaluate the project description
- Apply concepts to actual Environmental Impact Assessments

TIME BREAKDOWN:

Part A	Key Review Concepts: Project Description, Purpose and Need, and Reasonable and Feasible Alternatives	Group Discussion	15 minutes
Part B	Review for Appropriate Alternatives	Group Discussion	10 minutes
Part C	Introduction to Reviewer's Road Map	Group Discussion	10 minutes
Part D	Purpose and Need and Alternatives Review Exercise	Small Group Exercise	45 minutes
Part E	Report-out on Purpose and Need and Alternatives	Reports from Small Groups	15 minutes
Part F	Session Wrap-Up	Group Discussion	10 minutes
Part G	Day 1 Wrap-Up	Group Discussion	10 minutes

PART A. Key Review Concepts: Project Descriptions, Purpose and Need, and Reasonable and Feasible Alternatives (Group Discussion, 15 min.)

We are now going to walk through the environmental impact assessment document, focusing our review on selected elements of the analysis and documentation.

REFER TO THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FLOWCHART.

Let us focus first on documentation of Purpose and Need, as well as alternatives to a proposed project. Together, the Purpose and Need section of an EIA typically makes up the first chapter of an environmental impact assessment document. Closely related are the Project Description and Alternatives discussions, often the second chapter of an environmental impact assessment document. The proposed project and its alternatives should be designed to meet the identified need, and the identified need should be sound. A clear description of the proposed project and alternatives is necessary for conducting a review of the environmental impact assessment to support an informed decision regarding the proposed project.

For the remainder of this afternoon, we will discuss how to approach reviewing these chapters of an environmental impact assessment document: Purpose and Need, Project Description, and Project Alternatives. We also will practice what we discuss using our assigned case studies.

First, let us be certain we all have a common understanding of what we mean by purpose and need and alternatives to a proposed project and why a reviewer of environmental impact assessments needs to pay attention to them.

- Let us begin by using examples. I need two types of projects that you have either worked on or heard about that might involve environmental impact assessment?*

LIST PROJECTS ON FLIPCHART 4-1 (TITLED "PROJECT/PURPOSE AND NEED/ALTERNATIVES"), LIMIT TO TWO AND AVOID REPETITION IN TYPES OF PROJECTS. BEGIN BY LISTING 2 OR 3 PROJECTS (E.G., DAM, ROAD, HOUSING DEVELOPMENT) ON THE FLIPCHART AND THEN CARRY THROUGH THE DISCUSSION ON PURPOSE AND NEED ON EACH ONE SEQUENTIALLY.

Possible Responses: Dam
Highway
Airport
Power Plant
Harbor
Mine.

BEGIN WITH THE FIRST PROJECT AND IDENTIFY TWO OR THREE DIFFERENT PURPOSES AND NEEDS FOR IT, THEN IDENTIFY TWO DIFFERENT ALTERNATIVES FOR EACH PURPOSE AND NEED.

- *Now let's begin with the Purpose and Need. What could the Purpose and Need have been? What about alternatives for meeting each purpose and need?*

RECORD RESPONSES ON THE FLIPCHART. REPEAT FOR THE SECOND PROJECT.

REFER TO THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FLOWCHART.

Early on, before an environmental impact assessment document is produced, someone identifies a problem or opportunity for a proposed project; that is, this person or organization determines there is a need and specific purpose for the proposed project. A clear statement by the project proponent regarding this need is fundamental to the remainder of the environmental impact assessment document and consequently should be evaluated closely by the reviewer.

FACILITATE A DISCUSSION:

- *What happens in actual practice? Do projects ever get proposed without a clear "purpose and need"? (OFFER WITH A BIT OF HUMOR, SINCE IT IS ALL TOO OFTEN).*

It can and does happen that projects are proposed without a clearly defined purpose and need. Perhaps they are "wished for development opportunities," or "assumptions" about the future on someone's part.

TITLE A BLANK FLIPCHART "PURPOSE AND NEED AND ALTERNATIVES"

- *How or why should this concern the reviewer? Why do you think it is important for a reviewer to make sure that the environmental impact assessment clearly defines the purpose and need for an proposed project?*

Possible responses:

- To provide a basis for determining impacts
- To provide a basis for defining alternatives
- To demonstrate understanding of the context of the proposed project
- To prevent projects unsupported by sound economic or social needs from causing avoidable adverse social and environmental impacts.

- *What do you think should be included in the description of the purpose and need for a proposed project?*

- Possible responses:
- A statement of why the proposed project is necessary
 - A statement of what the proposed project is
 - A description of who or what groups would benefit from the proposed project and how they would benefit
 - An indication of how and when the proposed project would be completed.

FACILITATE A DISCUSSION OF THE PROJECT DESCRIPTION

- *What about the project description? The description of the proposed project explains how the proposed project meets the purpose and need. It also provides information critical to the evaluation of impacts. What kinds of things would we want to know? What are the necessary elements of a project description?*

USING A BLANK FLIPCHART, RECORD THE TYPICAL COMPONENTS OF A PROPOSED PROJECT DESCRIPTION

- Possible responses:
- An area map showing the proposed project site and surrounding land use and natural features
 - A site map showing property boundaries, location, and purpose of all structures
 - A detailed description of proposed project activities in different phases, including construction, operation, and closure, as well as the locations/areas and time frames over which these activities will take place
 - A description of materials flow.

DISCUSS HOW THIS INFORMATION PROVIDES CLUES TO THE REVIEWER REGARDING THE DESCRIPTION OF THE ENVIRONMENTAL SETTING AND IMPACTS.

- *What about checking to see if the proposed project meets the stated purpose and need?*

At times there are valid needs, and at other times it may be someone's pet project but have no valid need, and the reviewer should draw a distinction between the two.

PART B. Review for Appropriate Alternatives (Group Discussion, 10 min.)

We have reviewed why a clear description of a proposed project and the underlying purpose and need are important, and what a reviewer should look for. Let us talk more specifically about alternatives and what it means to a reviewer for an environmental impact assessment to be complete, and adequate.

In the environmental impact assessment process, alternatives are those reasonable, feasible activities which satisfy the purpose and need of a proposed project.

- *If a proposed project satisfies a purpose and need, why should we look at alternatives? What are the benefits of evaluating alternatives in the environmental impact assessment?*

USING A BLANK FLIPCHART, RECORD ELEMENTS OF THE DISCUSSION ON THE "BENEFITS OF EVALUATING ALTERNATIVES"

- Possible Responses:
- Selection of best project design
 - Selection of best project location
 - More efficient use of resources
 - Avoid adverse impacts
 - Achieve sustainable development goals made possible only through consideration of new ways of doing business.

Ideally, when someone proposes a project, he or she begins with a statement of the project's purpose and need, then they generate alternatives, evaluate alternatives and assess their impacts, and come up with the best approach from many different perspectives. This indeed is one of the goals of the environmental impact assessment process. The environmental impact assessment process is designed to enable decision-makers to consider alternatives in an explicit way in the hopes that different perspectives offered through stakeholder involvement can also be weighed in the decision and systematically considered in a rigorous environmental impact assessment.

Without alternatives, the decisions to be made are limited to opportunities to mitigate adverse impacts, or to be able to plan in advance for infrastructure needs. Without considering alternatives, we cannot achieve the full benefits of the environmental impact assessment process.

While it is important to include alternatives, in many countries the inclusion of alternatives is not mandatory. I would like you to hold the question of whether this means that the government reviewer cannot or does not consider alternatives.

- *Let us start with the question of what a reviewer would look for if identification of alternatives were required. Then we will follow with a discussion of what a reviewer might look for if alternatives were not required.*

LET PARTICIPANTS DISCUSS THE FOLLOWING QUESTIONS BRIEFLY. BE SURE TO EMPHASIZE THE POINTS WHICH FOLLOW EACH QUESTION.

- *First, what kinds of alternatives might one expect to see in an environmental impact assessment?*

REVEAL AND REFER TO FLIPCHART # 4-2 (ALTERNATIVES).

- *Can you give me an example of each kind of alternative using one of our projects that we had listed earlier as examples?*

ALLOW PARTICIPANTS TO PROVIDE EXAMPLES.

As you can see, there are several kinds of alternatives you may see in a typical environmental impact assessment. It is helpful for a reviewer to anticipate the relevance of the range of types of alternatives during the review process.

- *How many alternatives are enough to make an environmental impact assessment complete? How does a reviewer know when an environmental impact assessment considers an appropriate number of alternatives? Is there an appropriate number of alternatives?*

POSSIBLE PROMPTS: IS FIVE SUFFICIENT? THREE? A HUNDRED? IS IT SUFFICIENT TO HAVE ONLY ONE ALTERNATIVE?

The number of alternatives that should be considered depends on the project and setting. Sometimes 2 alternatives are enough, but sometimes 200 are needed. Regardless of the number, the alternatives need to cover a range of reasonable alternatives. They do not need to be exhaustive, but should represent key points on a spectrum to provide decision makers with appropriate information on the nature of the choices being made and their impacts.

- *In judging whether any of these alternatives may be relevant, is it necessary to have a no-action alternative?*

ALLOW UP TO THREE RESPONSES.

This raises two questions, first, whether the no-action alternative is always implicitly before the reviewer and government decision maker even when the environmental impact assessment document may not explicitly describe the no-action alternative and its impacts.

Second, whether the no-action alternative should always be present because it establishes a baseline of future environmental conditions if the proposed project were not implemented. The environmental conditions predicted under the "no-action" alternative must be compared with the potential impacts of the project and other proposed alternatives.

- *What if the environmental impact assessment process does not require consideration of alternatives? Is a single alternative, that is, the proposed project, sufficient to make the environmental impact assessment complete for the reviewer?*

ALLOW UP TO THREE RESPONSES.

Even if a single proposed project is assessed without explicit consideration of alternatives, the reviewing organization almost always has the no-action alternative before it, even if this alternative is not explicit. The reviewer must always have that baseline for purposes of analyzing the impact assessment and charting possible courses of action if the proposed project poses unacceptable environmental risks.

- *How do alternatives relate to mitigation? Is it sufficient for alternatives to consist of mitigation measures for the proposed project, or must there be alternatives entirely separate from the proposed project?*

ALLOW 1-2 MINUTES OF DISCUSSION.

In principle, and in most countries with environmental impact assessment processes which follow the international framework, there is a great effort to distinguish alternatives from mitigation. Understandably, that line is sometimes blurred.

Mitigation focuses on adverse environmental impacts, broadly defined to include both natural and human (socioeconomic) environments. Alternatives focuses on different ways of meeting the underlying purpose and need. Therefore, mitigation for a proposed project does not automatically qualify as a viable alternative. We will address mitigation in Session 7. It is a particularly important distinction if we have some doubts about our ability to mitigate impacts or if the residual impacts are unacceptable.

PART C. Introduction to Reviewer's Road Map (Group Discussion, 10 min.)

Let us step back and think about the reviewer. When a reviewer looks at these three elements: the project description, documentation of the purpose and need, and identification of alternatives, there is automatically a problem for the reviewer. It is a context problem, not a technical problem. Who is most responsible for these elements of a proposed project and presumably in possession of most of the expertise?

- Possible responses:
- The project proponent
 - The reviewer, as early as possible.

When a reviewer reviews these components of the environmental impact assessment, it is therefore essential that, if he or she finds deficiencies in "purpose and need" or in consideration of alternatives, that such findings be well-supported. Perhaps more important than that, they should also be related to concerns over adverse environmental impacts that could be avoided. This is because, in general, there will always be an expectation that review of purpose and need and alternatives is outside of the technical expertise of the reviewer. Nonetheless, review of purpose and need and alternatives is essential to the integrity of the process. It should be carried out in the same objective and systematic way as review of the remainder of the document.

REVEAL FLIPCHARTS # 4-2 (ROAD MAP FOR PURPOSE AND NEED AND ALTERNATIVES REVIEW (1)) AND # 4-3 (ROAD MAP FOR PURPOSE AND NEED AND ALTERNATIVES REVIEW (2)). PLACE THEM SIDE-BY-SIDE ON TWO STANDS.

We have spent most of our time in this session developing ways that a reviewer can approach his or her job of determining whether documentation of purpose and need, description of a proposed action and identification of alternatives statements are complete and adequate. Let's look at our road map.

REVIEW THE CONTENTS OF THE ROAD MAP FLIPCHART.

Based on our discussion thus far, does anyone have anything they would like to add, subtract, or question about this road map?

ANSWER ANY QUESTIONS. IF THERE IS CONSENSUS TO MAKE CHANGES TO THE ROAD MAP, MAKE THEM DIRECTLY ON THE FLIPCHART.

There is a copy of the road map for this element of the environmental impact assessment in sections 4.2.1 and 4.3.1 of the Student Text so that you can use it during review of actual environmental impact assessment documents. In fact, you will have the opportunity to use it right now in a group exercise.

PART D. Purpose and Need and Alternatives Review (Small Group Exercise, 45 min.)

We are going to return to the small groups we used in the last session, and each will review one of these four draft environmental impact assessment documents. Please remember to focus on the specific chapter or chapters we are asking you to review as part of the activity. Otherwise, you will not have time to complete your review.

KEEP FLIPCHARTS # 4-3 AND # 4-4 (ROAD MAP FOR PURPOSE AND NEED AND ALTERNATIVES REVIEW(1) AND (2)) POSTED FOR THE DURATION OF THE EXERCISE.

As you conduct your review, remember to keep the road map we developed earlier in mind, that is, whether the environmental impact assessment document:

- *Describes the purpose and need of the proposed project*
- *Demonstrates how purpose and need would be met by the proposed project*
- *Adequately describes the proposed project*
- *Considers the full range of alternatives to meet purpose and need*
 - *No action*
 - *Alternative sites, designs, controls*
 - *Structural vs non-structural*
 - *Reallocation of social costs and benefits*
 - *Reasonable, feasible*
 - *Reflective of the range of choices*
- *Preferred alternative satisfies purpose and need better than alternatives with less environmental impact*

You will have a total of 45 minutes to conduct this review of the project description, purpose and need, and alternatives. You will need to do several things during that time.

- 1) First, your small group will need to determine how much time you will need as individuals to review the document, and you will each need to use that time to individually review and analyze the document.*
- 2) Second, your small group will need to convene and discuss your observations and questions, and share your ideas.*
- 3) Third, your small group will need to prepare a group report on major points you want to make about your review of this element. Alternative points of view should be welcomed and also considered as part of the report. Does anyone have any questions?*

DISTRIBUTE HANDOUT #4-1 (INSTRUCTIONS FOR PURPOSE AND NEED AND ALTERNATIVES REVIEW). ANSWER ANY QUESTIONS THE PARTICIPANTS HAVE ON THE PROCESS THEY ARE TO FOLLOW.

It is now _____. Your small groups will have until _____ (45 minutes from now) to review this element of the environmental impact assessment, discuss your observations and questions, and prepare your reports. I will announce when 10 minutes are left so you will know how to structure your remaining time.

DURING THE ACTIVITY, YOU SHOULD DO THE FOLLOWING THINGS:

- MONITOR TIME AND EITHER MAKE VERBAL ANNOUNCEMENTS OF OR POST THE TIME REMAINING;
- CIRCULATE TO ENSURE SMALL GROUPS FOCUS ON REVIEWING THE PROJECT DESCRIPTION AND PURPOSE AND NEED AND ALTERNATIVES;
- CLARIFY ANY CONFUSION THE PARTICIPANTS HAVE ABOUT THE INSTRUCTIONS OR THE REVIEW PROCESS;
- DETERMINE HOW THE GROUPS WILL REPORT OUT; AND
- TEN MINUTES BEFORE THE END OF THE ACTIVITY, ANNOUNCE THE TIME REMAINING, AND FIVE MINUTES BEFORE THE END OF THE ACTIVITY DIRECT EACH GROUP TO ELECT A SPOKESPERSON.

PART E. Report on Purpose and Need and Alternatives Review (Reports from Small Groups, 15 min.)

Okay, it is time to re-convene and discuss the results of your review of purpose and need and alternatives. We are going to have each group BRIEFLY summarize its major findings from reviewing the document for project description, purpose and need, and alternatives. Each group should present for no more than THREE MINUTES. We are just trying to get a basic idea of your findings here. When giving your presentation, please try to focus on answering the questions posed by our road map.

HAVE EACH GROUP PRESENT ITS FINDINGS FOR UP TO THREE MINUTES. ENCOURAGE THE PARTICIPANTS TO ASK (BRIEF) QUESTIONS FOLLOWING EACH REPORT. DURING REPORT-OUT, ASK GROUPS TO AUGMENT COMMENTS MADE BY THE OTHER REPORT-OUT GROUPS.

ADVISE EACH GROUP TO BE SURE THAT EACH FLIPCHART HAS AN APPROPRIATE TITLE, NUMBER, AND OTHER RELEVANT INFORMATION SO THAT IT IS POSSIBLE TO CORRECTLY REFER TO IT LATER DURING OTHER COURSE EXERCISES OR AFTER THE COURSE IS OVER.

GENERALIZE FINDINGS INTO THE LARGER CONCEPTS DISCUSSED IN THE SECTION BY REFERRING TO THE KEY CRITERIA IN THE ROAD MAP. HOW WELL DID EACH OF THE ENVIRONMENTAL IMPACT ASSESSMENTS MEET THESE CRITERIA? REFER TO THE FINDINGS FROM EACH OF THE SMALL GROUPS.

PART F. Session Wrap-Up (Group Discussion, 10 min.)

Having had the experience of reviewing these portions of the environmental impact assessment, let's review that experience.

- *First, was the road map helpful? Did anyone use or refer to it? What would you add to it now that you undertook the review?*

UPDATE THE ROAD MAP FLIPCHART BASED ON PARTICIPANT COMMENTS.

- *What other portions of the environmental impact assessment document might be relevant to reviewing the project description, purpose and need, and alternatives?*
- *What advice would you give to other reviewers to "Watch out for" when reviewing these elements of the environmental impact assessment document?*

ADD TO THE ADVICE TO REVIEWERS FLIPCHART LIST AS APPROPRIATE.

Now I would like to ask you how you think your review of the project description, purpose and need, and alternatives would have gone in each of the other review situations we discussed earlier. Specifically,

RECORD PARTICIPANT RESPONSES ON THE FLIPCHART.

- *What if you had been in a position to be a proactive reviewer, if the project proponent had come to you or you to them early in the process, say, prior to establishing the purpose and need and alternatives and you were able to make suggestions about the alternatives to be considered, and to discuss the project description, purpose and need with him or her?*

ALLOW DISCUSSION FOR UP TO TWO MINUTES.

- *How about an empowered reviewer? What resources, or sources of information would you want to have to conduct a better review?*

REFER TO FLIPCHART # 3-4 (TOOLS AND TECHNIQUES). REFER TO THE RESOURCE MANUAL.

For example, the following sections in the Resource Manual provide useful information on assessing the purpose and need of a proposed project and identifying alternatives:

- 1.3.1 Purpose and Need
- 1.3.2 Statement of Underlying Need Defines the Range of Alternatives
- 1.3.5 Generation of Alternatives
- 1.5.3 Defining the Scope of Alternatives.

ALLOW DISCUSSION FOR UP TO TWO MINUTES.

PART G. Day 1 Wrap-Up (Group Discussion, 10 min.)

REVIEW THE SESSIONS COVERED DURING DAY 1 (OR THE PREVIOUS EVENING AND DAY 1).

During the day we have covered several basic principles of environmental impact assessment review.

We have discussed the role of the reviewer in the process, what is needed to understand the context within which the review takes place, and different situations a reviewer may find him/herself in.

We have also discussed approaches to reviewing environmental impact assessment documents. First "holistically," we reviewed the overall environmental impact assessment document. Afterwards, we began to review the components of the environmental impact assessment document by reviewing the Purpose and Need and Alternatives.

- *Does anyone have any questions or comments on the materials we have covered today?*

ANSWER ANY QUESTIONS THE PARTICIPANTS POSE, REDIRECTING THEM TO OTHER PARTICIPANTS WHERE APPROPRIATE AND ENCOURAGE THE DEVELOPMENT OF A FULL GROUP DISCUSSION. CONNECT POINTS THE PARTICIPANTS MAKE WITH THE LEARNING OBJECTIVES OF THE DAY'S SESSIONS AND/OR THE SESSIONS THAT WILL BE HELD TOMORROW.

ANNOUNCE THE STARTING TIME FOR DAY 2 AND ANY OTHER NECESSARY LOGISTICAL ARRANGEMENTS OR COMMENTS.

SESSION 5: REVIEW OF THE DESCRIPTION OF THE ENVIRONMENTAL SETTING

MATERIALS:		TIME: 2 hours and 15 minutes
Flipcharts:	5-1 Environment Types 5-2 Kinds of Data 5-3 Sources of Data 5-4 Local Information and Sources 5-5 Road Map for Environmental Setting Review	SETTING: Group discussion Small group exercise
Handouts:	5-1 Local Information and Sources 5-2 Environmental Setting - Document Excerpts 5-3 Instructions for Environmental Setting Review 5-4 Environmental Setting Checklist	
Other:	Case studies Resource Manual (e.g., 1.5.5; 2.2; 7)	
TEXT:		
2.2.4 Preparation and Review of the Draft Environmental Impact Assessment		
4.4 Description of the Environmental Setting		
Appendix A Environmental Impact Assessment Evaluation Checklist		
PURPOSE:	<ul style="list-style-type: none">● To introduce key natural and human (socioeconomic) environment types● To introduce key information types and sources relevant to environmental setting● To present a road map to guide review of the environmental setting portion of an environmental impact assessment● To practice review of environmental setting on real environmental impact assessment documents.	
TIME BREAKDOWN:		
Part A	Overview of Previous Sessions	Group Discussion 10 minutes
Part B	Components of Environmental Setting	Group Discussion 15 minutes
Part C	Approach to Environmental Setting Review	Group Discussion 10 minutes
Part D	Environmental Setting Case Study Review	Small Group 50 minutes
Part E	Report-Out on Environmental Setting Review	Reports from Small Groups 25 minutes
Part F	Session Wrap-Up	Group Discussion 10 minutes
Break		15 minutes

PART A. Overview of Previous Sessions (Group Discussion, 10 min.)

Welcome to the second day of the course. At the beginning of each day, we will open our discussion with a ten minute overview of what we covered on the previous day. In addition to refreshing your memory and setting the stage for new sessions, this is your opportunity to ask any unresolved questions you may have from previous sessions.

Let us take a look at what we covered yesterday. Session 1 was an introduction to the course. We described the purpose and background of the course, set some ground rules, and discussed the agenda and different reviewer situations (SOLO, PROACTIVE, EMPOWERED, AND LEAD).

Session 2 was on the Reviewer's Role in the Environmental Impact Assessment Process. In that session, we did three primary things : 1) we developed a common understanding of the environmental impact assessment process and key terms and the role of the reviewer throughout; 2) we discussed the legal, organizational, institutional, and personal context for review of environmental impact assessment documents and 3) we established the overall focus for a review and what a "good review" would include.

POINT TO THE "REVIEWER'S FOCUS" FLIPCHART (#2-5) ON THE WALL FROM SESSION 2.

In Session 3 we discussed different ways to conduct an overall review of an environmental impact assessment document, as well as review of the scoping portion of such a document. We also presented a road map for overall and scoping review,

POINT TO THE FLIPCHART ROAD MAPS FOR OVERALL REVIEW (#3-1 AND 3-2) AND FOR SCOPING REVIEW (#3-3) ON THE WALL FROM SESSION 3.

...and you put those road maps to use during practice review of actual case study environmental impact assessment documents. We then presented a list of tools and techniques to use during review.

POINT TO THE TOOLS AND TECHNIQUES FLIPCHART ON THE WALL FROM SESSION 3 (#3-4).

We closed by developing an Advice to Reviewers list for things that we want to remember to look out for during our reviews based upon our experience.

POINT TO THE ADVICE TO REVIEWER'S LIST FROM SESSION 3 (#3-5).

In Session 4 we discussed ways to review a project description, as well as a purpose and need statement, and alternatives to a proposed project. As in Session 3, we developed a road map to help you review these elements of an environmental impact assessment,

POINT TO THE ROAD MAP FOR PURPOSE AND NEED AND ALTERNATIVES REVIEW (#4-3 AND 4-4)

...and practiced review on case study documents.

...and added to our advice for reviewers list.

POINT TO THE ADVICE TO REVIEWERS LIST

- *Does anyone have any questions about any of the material we have covered thus far?*

Today we are going to focus on other key elements of the process: description of the environmental setting, assessment of impacts, and mitigation of adverse impacts. We will close with an introduction to the overall review of the draft environmental impact assessment that we will carry through tomorrow morning. I want to remind you that documentation during your review is important and that you will be making use of all of your individual and collective notes as you move along through each session of the course. Each session builds on the last.

PART B. Components of Environmental Setting (Group Discussion, 15 min.)

Yesterday we reviewed the description of the proposed project and alternatives to learn "What is proposed to be done and why?." This session addresses how to review the environmental setting portion of an environmental impact assessment document, to learn "Where and on what might it have an impact." A good description of the environmental setting allows us to assess the potential environmental impacts associated with a project and its alternatives.

To prepare you to review this part of an environmental impact assessment, we are first going to:

- *Identify what should be included in the description of the environmental setting..*

Then we will:

- *Identify those information needs and sources that are particularly important in describing the existing natural environment and human, or socioeconomic, environment.*
- *Develop and review our road map;*
- *Present a tool for environmental setting review;*
- *Actually review the environmental setting portion of our assigned case studies; and*

- *Refine our Advice to Reviewers list.*

INTRODUCE FLIPCHART # 5-1 NATURAL AND HUMAN (SOCIOECONOMIC) ENVIRONMENT TYPES.

- *Let us start with what makes a description of the environmental setting complete. What should be included?*

I have two lists here of the broad issue areas that should be considered in the review of the description of the environmental setting. The environmental setting includes both the natural environment and human, or socioeconomic, environment. There are many ways we could have organized these lists and you may want to amend or add to them as we go through and review what might be included in each of the headings.

Can you think of any circumstances when certain factors from either list might not be needed or not needed in any detail?

ASK IF ANYONE WOULD LIKE TO ADD ANY ENVIRONMENT TYPES TO EITHER LIST. RECORD RESPONSES ON THE LIST.

Any listing exercise such as this is going to be helpful for many, but not all, issues of concern to you in a particular setting. Many reviewers find it helpful to have a list that they can either use as a checklist, or refer to, to ensure they have not overlooked anything. We have a checklist for you later, and you may want to tailor it to your own needs. The Environmental Impact Assessment Evaluation Checklist that will be distributed is also included in both the Student Text (Appendix A) and the Resource Manual (Section 2.2).

Next, we need to ask what a reviewer can reasonably expect to see in terms of the level and type of data and information provided on these topics in an environmental impact assessment. Let us look at some examples of the kinds of information that you would expect to see associated with each environment type.

INTRODUCE FLIPCHARTS # 5-2 (KINDS OF DATA). BENEATH IT WILL BE FLIPCHART #5-3 (SOURCES OF DATA). REMOVE FLIPCHART #5-3 AND POST IT ON THE OTHER FLIPCHART STAND SO BOTH #5-2 AND #5-3 ARE VISIBLE.

As you can see, there are potentially many different kinds of information that can be included in a description of the environmental setting. These information types also come from a wide variety of sources. Can anyone offer other examples of information types, or specific sources?

RECORD ON A BLANK FLIPCHART "INFORMATION AND SOURCES" AND POST IT WHEN COMPLETE.

Example data types for each of the topics listed for natural and human environment are provided in your Student Text in Section 4.4, and data sources are addressed in the Resource Manual in Section 1.5.4 - Assessment and 1.5.5 - Sources of Environmental Data.

DIRECT PARTICIPANTS TO OPEN THE STUDENT TEXT TO SECTION 4.4, AND THE RESOURCE MANUAL TO SECTION 1.5.5. WALK PARTICIPANTS THROUGH A FEW ENVIRONMENT TYPES AND INFORMATION SOURCES TO ACQUAINT THEM WITH THESE RESOURCES.

WE ALSO WILL NOW PROVIDE A FORMAT YOU CAN USE WITH YOUR COLLEAGUES TO IDENTIFY KEY SOURCES OF INFORMATION YOU MAY WANT TO DRAW UPON IN YOUR OWN COUNTRY OR COMMUNITY AS A REVIEWER.

REVEAL FLIPCHART # 5-4 (LOCAL INFORMATION AND SOURCES) AND DISTRIBUTE THE COMPANION HANDOUT #5-1.

- *What are the credible sources of information in this country for some important environment types? What gaps in information exist? How would you fill them? What could you do as a reviewer in the different reviewer roles we discussed?*

RECORD RESPONSES ON THE FLIPCHART.

DISCUSS SPECIFIC ATTRIBUTES OF INFORMATION SOURCES, GAPS, HOW GAPS CAN BE FILLED. REMOVE THE FLIPCHART AND POST IT ON THE WALL.

Significance:

There is a key point that applies to any of these information types and sources: the level of detail provided for each aspect of the environmental setting, in the form of discussion and supporting data, should be commensurate with the potential for significant environmental impact. We would have some sense of this from the results of the scoping process — the list you put together on significant issues is a start. For example, if it had been decided during scoping that a particular proposed project would most likely result in severe impacts to a coastal fishery, then the level of detail and quantity of supporting data in the document about that fishery should be high.

TITLE A NEW BLANK FLIPCHART "ADEQUACY."

- *We have talked about completeness in terms of topics and the kind of information that one might find or need about those topics. Now, I'd like to consider the adequacy of the information presented. What should a reviewer look for to judge the adequacy of the information in the EIA on the environmental setting?*

- Possible responses:
- Date the data was collected: is it out of date?
 - Season when data was collected, and time of day
 - Period of time: conditions (e.g., particularly dry or wet)
 - Quality control information on the data
 - Whether information was from a reputable source
 - Demographics of persons interviewed and described
 - Appropriate consideration of age, gender, sex, ethnic or religious group for the issues raised
 - Whether data covers the entire extent of the "affected environment" for the specific type of environmental issue.

Those are all good responses.

- *How can you as reviewers determine whether information or data that is presented is adequate if you are not an expert in the field?*

- Possible responses:
- Consistent logic
 - Documentation
 - Ask an expert
 - Look for answers to key questions.

To bring together our discussion on the description of the environmental setting, let's look at several statements drawn from environmental impact assessments. For each we will discuss whether you find them adequate, and will identify issues that the statements may raise and the additional information, if any, you would expect to find in an environmental impact assessment to support them.

DISTRIBUTE THE HANDOUT #5-2(ENVIRONMENTAL SETTING - DOCUMENT EXCERPTS).

ASK A PARTICIPANT TO VOLUNTEER TO READ EACH STATEMENT. FOR EACH STATEMENT, SOLICIT COMMENTS FIRST ABOUT WHETHER IT IS SUFFICIENT, AND IF NOT, WHAT ADDITIONAL INFORMATION WOULD THEY WANT TO SEE. ASK IF ANYONE THOUGHT THE STATEMENT WAS SUFFICIENT AND WHY. IF SOMEONE RESPONDS THAT A STATEMENT IS INSUFFICIENT, ASK WHY. TRY TO HAVE THE GROUP IDENTIFY THE KINDS OF CIRCUMSTANCES IN WHICH IT MAY OR MAY NOT BE ACCEPTABLE. ALLOW 5 MINUTES OF DISCUSSION FOR EACH STATEMENT. MAKE SURE THE DISCUSSION INCLUDES THE KEY POINTS IDENTIFIED BELOW.

KEY POINTS TO ADDRESS DURING DISCUSSION:

Assessment	Identifying the right boundary for the environmental impact
------------	---

Boundary	assessment is critical. The decision should be based upon resources and populations potentially affected by the proposed action and not on political boundaries such as municipalities, counties, provinces, or states.
Infrastructure	To serve as an effective planning tool, environmental impact assessment documentation of the environmental setting should support analysis of the impact of a proposed action on the future capacity of a community's infrastructure, including its sewage treatment plant, drinking water supply, and transportation and communication systems.
Flora and Fauna	The environmental impact assessment must be supported by specific documentation on the flora and fauna within the assessment area to determine potential impact to the biological community.
Endangered Species	By their very nature, endangered species may not be readily observed in a given time frame. More discussion is needed to determine if there ever were observations, and where and when the observations took place and why they are or are not valid now.
Demographics	The use of specific resources must be discussed comprehensively and include an assessment of gender, age, and cultural factors relative to their use. The specific distribution of the affected population relative to the resource must be considered. Differential resource use by segments of the population may lead to significant impacts when viewed as a subpopulation rather than in terms of the population as a whole. The USAID Environmental Health Project's Communities Involved in Managing Environmental Pollution program found that in societies where women are secluded from men, women will tend to use water sources closer to home, despite cleaner water being available further away.
Socioeconomics	To evaluate the potential impact of a proposed action on the economy in the assessment area, detailed information on the composition, existing condition, and interrelationships between specific sectors of the economy is needed.

PART C. Approach to Environmental Setting Review (Group Discussion, 10 min.)

Let us summarize what we have discussed so far by reviewing the Road Map we prepared for review of environmental setting.

REVEAL FLIPCHART #5-5 (ROAD MAP FOR ENVIRONMENTAL SETTING REVIEW).

The Road Map is intended to help you maintain focus on the elements of environmental setting review. As indicated on your Road Map, in conducting your review, you should, at a minimum, keep the following issues in mind:

- *All relevant types of natural and human environmental issues are addressed*
- *Affected area or community is adequately and accurately defined*
- *Map of the environmental impact area and surrounding features is adequate*
- *Baseline is established to measure environmental impact*
- *Appropriate information and data are documented and used appropriately*
- *Information is linked back to proposed project description, purpose and need, alternatives?*
- *Levels of detail are appropriate to significance*
- *Information and data are of acceptable quality and relevance?*
- *Section is internally consistent in its approach to analyzing issues?*

For your reference, the Road Map for Environmental Setting Review is located in Section 4.4.6 of the Student Text.

PART D. Environmental Setting Case Study Review (with and without checklist -- Small Group Exercise, 50 min.)

We will now practice reviewing the description of the environmental setting using the four case studies from yesterday.

As you conduct your review, remember to keep the road map we just discussed in mind.

DISTRIBUTE HANDOUT #5-3- INSTRUCTIONS FOR ENVIRONMENTAL SETTING REVIEW.

DIVIDE THE CLASS BACK INTO THE FOUR GROUPS CREATED DURING THE SESSION 4 EXERCISE.

KEEP FLIPCHART #5-5 (ROAD MAP FOR ENVIRONMENTAL SETTING REVIEW) POSTED FOR THE DURATION OF THE EXERCISE.

DISTRIBUTE HANDOUT #5-4 (ENVIRONMENTAL SETTING REVIEW CHECKLIST) TO TWO, AND ONLY TWO, OF THE FOUR GROUPS.

You will have a total of 50 minutes to conduct this review of the description of the environmental setting. You will need to do several things during that time.

- 1) Determine how much time you will need as individuals to review the document.*
- 2) Convene your small group and discuss your observations questions, and share ideas.*
- 3) Prepare a group report. Alternative points of view are welcomed and part of the report.*

Finally, two of the four groups will use a checklist for reviewing the environmental setting and two groups will not. This way we can compare differences when we share our groups' findings.

It is now _____. Your small groups will have until _____ (50 minutes from now) to review this element of the environmental impact assessment, discuss your observations and questions, and prepare your reports. Reports should focus on answering questions posed by the environmental safety road map. I will announce when 10 minutes are left so you will know how to structure your remaining time.

Does anyone have any questions?

DURING THE ACTIVITY, YOU SHOULD DO THE FOLLOWING THINGS:

- MONITOR TIME AND EITHER MAKE VERBAL ANNOUNCEMENTS OF OR POST THE TIME REMAINING;
- CIRCULATE TO ENSURE SMALL GROUPS FOCUS ON REVIEWING THE ENVIRONMENTAL SETTING;

- CLARIFY ANY CONFUSION THE PARTICIPANTS HAVE ABOUT THE INSTRUCTIONS OR THE REVIEW PROCESS;
- DETERMINE HOW THE GROUPS WILL REPORT OUT; AND
- TEN MINUTES BEFORE THE END OF THE ACTIVITY, ANNOUNCE THE TIME REMAINING,
- FIVE MINUTES BEFORE THE END OF THE ACTIVITY, DIRECT EACH GROUP TO ELECT A SPOKESPERSON WHO HAS NOT YET PRESENTED.

PART E. Report-Out on Environmental Setting Review (Reports from Small Groups, 15 min.)

RE-CONVENE ALL GROUPS.

THE TWO GROUPS THAT DID NOT RECEIVE CHECKLISTS SHOULD PRESENT FIRST.

It is time to re-convene and discuss the results of your review of environmental setting. We are just trying to get a basic idea of your findings. Please focus on answering the questions posed by our road map.

AT LEAST HALF OF THE REPORT-OUT TIME SHOULD BE LEFT AFTER THE FIRST TWO GROUPS REPORT.

ASK THE TWO GROUPS THAT DID HAVE THE CHECKLIST TO REPORT OUT.

DURING REPORT-OUT, ASK OTHER GROUPS TO COMMENT.

RECOMMEND THAT EACH GROUP'S FLIPCHARTS BE TITLED, NUMBERED, ETC. SO THAT IT IS POSSIBLE TO CORRECTLY REFER TO THEM DURING OTHER EXERCISES, OR AFTER THE COURSE IS OVER.

ONCE ALL GROUPS PRESENT THEIR FINDINGS, GENERALIZE INTO THE LARGER CONCEPTS PRESENTED IN THIS SESSION. REFER TO THE KEY CRITERIA IN THE ROAD MAP AND THE FLIPCHARTS OF FINDINGS FROM EACH OF THE SMALL GROUPS.

HIGHLIGHT THOSE AREAS WHERE THE GROUP THAT DID HAVE THE CHECKLIST MAY HAVE BENEFITTED FROM USING IT, TO UNDERScore THE BENEFITS AND LIMITATIONS OF USING A CHECKLIST (DISTRIBUTE HANDOUT #5-4 TO ALL ONCE REPORTING IS OVER).

DISCUSS THE ADVANTAGES AND DISADVANTAGES OF USING CHECKLISTS. THE BENEFITS DERIVED SUCH AS CONSISTENT APPROACH AND COMPREHENSIVE REVIEW SHOULD COME OUT DURING THE DISCUSSION. IN TERMS OF DISADVANTAGES, SPECIFICALLY STATE THAT:

The checklist is not a substitute for understanding the process to be followed and the analysis to be conducted. Also, relevant issues and information presented in the document may not always be anticipated by the checklist. The checklist is to be used as one tool to aid you as reviewers, not as a replacement for your knowledge, skills, and ability as reviewers.

PART F. Session Wrap-Up (Group Discussion, 10 min.)

Having had the experience of reviewing the description of the environmental setting in your environmental impact assessment documents, let us review that experience.

- *First, was the Road Map helpful? What would you add to it now that you undertook your review?*

UPDATE THE ROAD MAP FLIPCHART BASED ON PARTICIPANT COMMENTS.

- *What other portions of the environmental impact assessment document might be relevant to reviewing the description of the environmental setting?*

Possible responses:

- Scoping
- Project description
- Purpose and need and alternatives
- Projected environmental impacts
- Proposed mitigation.

MAKE REFERENCE TO THE "ADVICE TO REVIEWERS" FLIPCHART .

- *What kinds of things would you advise other reviewers to "watch out for" when reviewing the description of the environmental setting?*

RECORD RESPONSES ON THE ADVICE TO REVIEWERS FLIPCHART.

Possible responses:

- Imbalance of descriptive materials: a lot of information on issues of insignificance and little information on significant issues
- Inadequate justification for dismissing an aspect of the environment (e.g., "No endangered species have been spotted in the region for the past three years, so there must be none")
- Inadequate quantification (e.g., "Current waste water treatment capacity is adequate")
- Inadequate bases for assessment of impacts.

IT IS NOT NECESSARY TO RECORD THE FOLLOWING RESPONSES ON A FLIPCHART.

- *What benefits can you imagine if you were a proactive reviewer with respect to evaluating environmental setting?*

ALLOW DISCUSSION FOR UP TO TWO MINUTES.

- *How about if you had been an empowered reviewer? What resources, or sources of information would you want to have available to conduct the review?*

ALLOW DISCUSSION FOR UP TO ONE MINUTE, THEN INTERRUPT:

As we mentioned in the last session, one of the most effective tools environmental impact assessment reviewers can use is a checklist. Environmental impact assessments are usually quite large, with hundreds of pages of often complex information. Using a checklist such as the one you were provided with earlier in this course, which is also located in your Student Text (Appendix A) and Resource Manual (Section 2.2), can help ensure that you cover all of the key points of review. Other tools and techniques that can be useful for this analysis include all the items on the Tools and Techniques flipchart and some items that are specifically provided as part of the Resource Manual such as in Section 7 - Environmental Impact Assessment Resources Available on the Internet and Compact Disc.

POINT TO FLIPCHART # 3-4 (TOOLS AND TECHNIQUES).

You will need to rely upon a wide range of tools and techniques. The types listed on this flipchart include specific information like the information included in the following sections of the Student Text:

- 4.4.1 Existing Physical-chemical Environment*
- 4.4.2 Existing Biological Conditions*
- 4.4.3 Waste Management and Pollution Prevention*
- 4.4.4 Socioeconomic Environment*
- 4.4.5 Cultural Resources*
- 4.4.6 Reviewing the Description of the Environmental Setting*
- Appendix A - Environmental Impact Assessment Evaluation Checklist*

Additionally, you may need to undertake your own data collection efforts, such as field reconnaissance tours and library research.

In our next session, we will go over the elements of reviewing an environmental impact assessment document for potential environmental impacts. The next facilitator will be [INTRODUCE NEXT FACILITATOR].

IF TIME ALLOWS, GIVE PARTICIPANTS UP TO A FIFTEEN MINUTE BREAK AT THIS POINT.

SESSION 6: REVIEW OF POTENTIAL ENVIRONMENTAL IMPACTS

MATERIALS:		TIME:	3 hours 35 minutes
Flip charts:	6-1 Types of Environmental Impacts	SETTING:	Group discussion
	6-2 Examples of Environmental Impacts		Small group exercise
	6-3 Road Map for Environmental Impact Review		
Handouts:			
6-1 Environmental Impact Evaluation - Document Excerpts			
6-2 Environmental Impact Checklist			
6-3 Instructions for Review of Impacts in Case Studies			
Other:			
Case Studies			
Resource Manual (e.g., 1.3.6; 1.5.6; 1.5.7; 1.5.8; 1.5.9; 1.5.12; 1.5.13; 1.5.14; 2.1; 2.2; 3.1; 5; and 7)			
TEXT:			
2.2.4 Preparation and Review of the Draft Environmental Impact Assessment			
4.5 Potential Environmental Impacts			
Appendix A Environmental Impact Assessment Evaluation Checklist			
Appendix B Environmental Impact Assessment Methodologies			
PURPOSE:			
<ul style="list-style-type: none"> ● To introduce key environmental impact types ● To discuss the importance of forecasting methods for environmental impact review ● To present a road map to guide review of the environmental impacts portion of an environmental impact assessment document ● To practice review of environmental impacts on real environmental impact assessment documents. 			
TIME BREAKDOWN:			
Part A Environmental Impact Definition and Forecasting Methodologies		Group Discussion	40 minutes
Part B Approach to Environmental Impacts Review		Group Discussion	10 minutes
Part C Environmental Impacts Review		Small Group Case	140 minutes
Lunch Included			
Part D Report-Out on Environmental Impacts Review		Group Discussion	15 minutes
Part E Advice to Reviewers List		Group Discussion	10 minutes

PART A. Environmental Impact Definition and Forecasting Methodologies (Group Discussion, 40 min.)

Projecting and evaluating environmental impacts of a proposed action and its alternatives is at the heart of environmental impact assessment. To start our discussion, I would like us to walk through the Reviewer's Focus (REFER TO FLIPCHART #2-5) and start with what makes the evaluation of environmental impacts complete.

- *To do that, let's start by talking about what we mean by "environmental impacts." What are we referring to by the "environmental" part of "environmental impacts"? What types of environments can be affected?*

SOLICIT 3-4 RESPONSES.

Impacts can happen to any of the environment types we identified during the last session, Review of the Description of the Environmental Setting.

REFER TO FLIPCHARTS ON WALL FROM SESSION 5: REVIEW OF THE DESCRIPTION OF THE ENVIRONMENTAL SETTING. READ SOME OF THE HEADINGS UNDER NATURAL ENVIRONMENT AND SOME OF THE HEADINGS UNDER HUMAN ENVIRONMENT.

- *Are the environmental impacts supposed to include only impacts that are adverse?*

DISCUSS BENEFICIAL VERSUS ADVERSE ENVIRONMENTAL IMPACTS FOR 1-2 MINUTES.

I would like to emphasize that the environmental impacts chapter of an environmental impact assessment document should consider all potential impacts, beneficial and adverse, and their relative significance.

REVEAL FLIPCHART # 6-1 (TYPES OF ENVIRONMENTAL IMPACT).

Within any of the environment types we listed there are not only adverse and beneficial impacts, there are also three types of environmental impact:

1. *Primary impacts—A primary impact is direct and occurs at the same time and place as the action. Primary impacts are associated with the construction, operation, and/or maintenance of a facility or activity. They are generally visibly obvious and quantifiable;*
2. *Secondary impacts—Secondary impacts occur later in time, or at a different place from the initial action. These impacts are indirect or induced changes in the environment, population, economic growth, and land use;*

3. **Cumulative impacts**—Cumulative impacts result from the incremental impact of a proposed action on a common resource when added to other past, present and reasonably foreseeable future actions. These may include the collective effects of individually minor actions over a period of time. (e.g., the combined effect of wastewater discharge, dredging, and agricultural runoff on a small estuary, or several dams constructed throughout a single river basin).

An environmental impact assessment is not complete without considering all three types of environmental impacts.

RECORD RESPONSES TO THE FOLLOWING QUESTIONS ON FLIPCHART 6-2 (EXAMPLES OF ENVIRONMENTAL IMPACTS).

- *Okay, who can give me examples of primary impacts on the environment types we identified in the last session?*

Possible responses:

Water Resources

- Sediment loading to waters adjacent to the site
- Accumulation of toxics within adjacent water bodies

Biological Resources

- Loss of habitat, nesting areas, migration pathways, food resources, and/or breeding grounds and subsequent reductions in biological species
- Displacement of rare, unique, or commercially valuable species

Can anyone give me examples of secondary impacts on any environment types?

Possible responses:

Land Use

- Inadequate land use controls to prevent conversion of lands designated for protection by the government

Geological Resources

- Slope failure
- Subsidence

- *Can anyone give me an example of cumulative impacts to any environment types?*

Possible responses:

Water Resources

- Multiple sources of pollution cause waters to exceed standards

Biological Resources

- Bioaccumulation of toxics resulting in potential ecological and human health risks
- Reduced biodiversity

- *Should potential impacts be assessed for only the preferred alternative or for all reasonable and feasible alternatives?*

I would like to emphasize that environmental impacts should be assessed for all reasonable and feasible alternatives, and in a roughly equal level of detail. It is often the case in environmental impact discussions that certain alternatives receive significantly more attention and detail than others. This can be due to omission, or to intentional efforts to downplay the negative or positive attributes of one or more alternatives relative to the others.

- *What about examples of beneficial environmental impact, in each category?*
- *When considering potential environmental impacts:*
 - *Should the environmental impact assessment focus only on projected impacts once a project is operating?*
 - *What other stage(s) of a project would you say that the environmental impacts chapter of an environmental impact assessment should assess?*

ALLOW PARTICIPANTS TO MAKE 3-5 SUGGESTIONS.

As you are correctly pointing out, it is important for the environmental impact assessment to identify and assess potential impacts for all stages of the proposed action. This includes:

- *Initial site preparation and construction,*
- *Facility operation, and*
- *Post-facility operations, or site closure.*

We have discussed the types of environmental impacts that should be assessed in an environmental impact assessment document to make it complete, and you provided specific examples of impacts. Now, given all the potential impacts, let's talk about how significance of impacts is determined and how you can consider significance during a review.

CREATE A BLANK FLIPCHART TITLED "SIGNIFICANCE."

BRAINSTORM ON, AND RECORD ON A FLIPCHART, FACTORS THAT MIGHT INFLUENCE THE SIGNIFICANCE OF POTENTIAL IMPACTS, FOCUSING ON THE FOLLOWING FOUR AREAS:

- *What factors about the impact might influence its significance?*

Responses should include:

Geographical context

- Local
- Regional
- State
- National

Duration of impact

- Daily, Weekly, Monthly, Annually
- Short term/long term

Magnitude of impacts

- Exceeds public health or environmental standards or thresholds
- Rate of change
- Severity of effect
- Permanence of the change, is it reversible/irreversible
- Degree of uncertain or unknown risks
- Occurrence of cumulative impacts
- Threat to commercially or recreationally valuable, threatened or endangered species or their critical habitat

Public perception of impacts

- Degree of controversy of the environmental impact
- Likelihood that a precedent will be set
- Degree to which cultural or historical sites may be affected
- Degree to which important scientific, cultural, or historical resources are lost

Those are good thoughts. I would like to emphasize the following about reviewing for significance of environmental impacts:

- *The four criteria we discussed above, geographical context, duration of impacts, magnitude of impacts, and public perception of impacts, should all be considered in an environmental impact assessment. If one or more of these elements are absent, you should question whether its absence is justified.*
- *As a reviewer, you should use established standards and criteria to help determine whether assessments of the significance of environmental impacts are accurate. For example, if the project proponent claims that a change in water quality due to a proposed project will be insignificant, you may want to compare the data provided to existing federal or state water quality standards to make your own determination of significance.*
- *What do you do as a reviewer if these quantitative standards are not available? It is important for reviewing organizations and in their absence, by default the reviewer, to develop environmental impact decision or significance criteria for assessing impacts.*

You can then use such criteria during your review in order to compare your judgements about significance of environmental impact to the project proponent's statements. In addition, if you are in a proactive review situation, you may be able to provide your criteria to the project proponent prior to their assessment of impacts.

One possible set of decision criteria is as follows:

- *Significant adverse environmental impact (e.g., project will cause air quality to exceed health-based standards)*
- *Adverse environmental impact (e.g., construction phase contributes particulate matter to air)*
- *No environmental impact (e.g., project does not contribute to air pollution)*

Appendix C.2 in the Student Text contains examples of how decisions of significance were made by several different organizations with regard to seven components of an environmental setting for a specific project. For each component, potential environmental impacts were categorized into three levels of impact as we just did: Significant Adverse Environmental Impact, Adverse Environmental Impact, and No Environmental Impact. For example, one of the seven components of the environmental setting was water resources. One of the types of environmental impact that was categorized was introduction of pollutants to ground water. This type of impact was categorized in the following way:

Significant Adverse Environmental Impact:

- *The activity results in introduction of pollutants to potable ground water and is likely to cause ground water to exceed maximum contaminant levels.*

Adverse Environmental Impact:

- *Introduction of pollutants to potable ground water is not likely to cause ground water to exceed maximum contaminant level.*

And No Environmental Impact:

- *No introduction of pollutants to ground water.*

Making use of criteria, such as the ones found in Appendix C.2 of the Student Text, can help a reviewer evaluate potential environmental impacts in a meaningful and consistent way. I encourage you to review Appendix C.2 on your own outside of this class. It combines applicable standards, accepted practice, local policies and professional judgement.

- *Now let's focus on the adequacy of the methods used to assess environmental impacts. What approaches or methodologies are you likely to see used in the assessment of impacts? What types of tools are used to assess impacts?*

Responses may include:

Models

- Mathematical models
- Conceptual models

Mapping or Extrapolation

- Mapping, overlays, or geographical information systems
- Extrapolation from historical trends

Precedent and Expert Judgement

- Inference from outcome of similar projects
- Professional judgement of experts

Lets look at how a reviewer might approach the review when each of these methods are used to project environmental impacts.

DISTRIBUTE HANDOUT # 6-1 (ENVIRONMENTAL IMPACT EVALUATION - DOCUMENT EXCERPTS)

In handout #6-1 we again have some excerpts from real environmental impact assessments. I would like you to read and assess their adequacy.

ASK A PARTICIPANT TO VOLUNTEER TO READ THE FIRST STATEMENT FROM THE HANDOUT (SHOWN BELOW) ALLOW ABOUT TWO MINUTES OF DISCUSSION FOR THE STATEMENT.

SOLICIT COMMENTS:

WHETHER IT IS SUFFICIENT, AND IF NOT, WHAT ADDITIONAL INFORMATION IS NEEDED.

IF INSUFFICIENT, ASK WHY.

IDENTIFY CIRCUMSTANCES IN WHICH STATEMENT MAY OR MAY NOT BE ACCEPTABLE.

PREDICTIVE MODEL

•“One year of historical water quality data, from an existing U.S. Geological Survey monitoring station, was entered into the Persistence model. The results of the application of the model indicate that the water body adjacent to the proposed shopping center would not be affected by its construction and operation.”

THE DISCUSSION SHOULD INCLUDE THE FOLLOWING KEY POINTS:

Predictive Model It is important for the reviewer to verify that the correct model was utilized to evaluate environmental impact. The environmental impact assessment must contain specific information on the source and quality of the data entered into the model and establish the validity of any assumptions applied.

- *How can you review the use of either a conceptual or mathematical model in an environmental impact assessment without being a modeler or expert? What techniques can you use to evaluate the appropriate use of models?*

Possible responses:

- Evaluate the description of what the model assesses, how it works, and whether it is appropriate for the analysis
- Evaluate the data inputs needed for the model, the default values, and whether they are appropriate for the analysis
- Consider the track record of the model and its uses, is it commonly used in these circumstances and accepted as accurate, has it reliably assessed impacts for other projects?
- Look for documentation that justifies the choice of the model over others that were considered
- Was the model used consistently to assess environmental impacts of the proposed project and the alternatives?
- Is it validated as a good assessment (as opposed to a descriptive) tool?

- *What types of environmental impact analyses are likely to be performed using models?*

Possible responses:

- Water quality
- Air quality
- Economic.

In the Resource Manual and Student text, we have developed and included something to assist reviewers in reviewing various methods used to predict impacts.

DIRECT PARTICIPANTS TO PAGE 1.5.7-1 IN THE RESOURCE MANUAL, THERE IS A HIGHLY INFORMATIVE 14 PAGE GUIDE TO ENVIRONMENTAL IMPACT IDENTIFICATION THAT BEGINS ON THAT PAGE, TITLED "IMPACT IDENTIFICATION." ALSO DIRECT PARTICIPANTS TO APPENDIX B IN THE STUDENT TEXT, WHICH ALSO CONTAINS A USEFUL MATRIX DESCRIBING ENVIRONMENTAL IMPACT ASSESSMENT MODELS.

- *Is the model referred to listed? How might you be able to use this resource and also the descriptions of models and analytical techniques in section 1.5.*

In addition to models for projecting environmental impact there are several other techniques you would encounter as a reviewer:

- *Mapping, overlays, or geographical information systems are useful tools for delineating the area that will be affected and for identifying the resources within that area that will be affected. This is discussed briefly on page 1.5.7-5. What do you look for when evaluating whether these tools have been used appropriately?*

Possible responses:

- Document how maps, overlays, and GIS were prepared
- Verify placement of key features, both natural and man-made
- Evaluate the scale used and whether its appropriate for impact assessment.

Further valuable information in the Resource Manual begins immediately after the section I just mentioned, on page 1.5.8-1 titled "Impact Analysis and Prediction." This section contains 32 pages of information on environmental impact analysis and prediction. This is a valuable resource that I recommend you read outside of class.

I would like to ask for another volunteer to read the next statement from handout # 6-1.

ASK SIMILAR QUESTIONS AS FOR THE PREVIOUS STATEMENTS.

EXTRAPOLATION/TREND ANALYSIS

- *"The population of Sanco County has grown at an annual rate of approximately 5 percent over the past 10 years and is expected to continue to grow at this rate for the next 10 to 15 years. The County's current community service plans are sufficient to accommodate this growth."*
-

KEY POINTS TO ADDRESS DURING DISCUSSION:

Extrapolation - The data utilized to support the extrapolation must be representative and reflective of the proposed action. The environmental impact assessment must demonstrate why current trends will be valid in the future.

Extrapolation from historical trends, inference from the outcome of similar projects and professional judgement of experts are closely related techniques for assessing impacts. Reviewing the application of these approaches requires careful evaluation of the assumptions used to make an assessment of environmental impact. For example, you may want to consider:

- *What was responsible for historical trends, have conditions changed?*
- *Are the circumstances for this proposed project consistent with those of other projects used for comparison?*
- *What are the credentials of the expert? Do other experts share similar or conflicting opinions?*
- *What might you look for in the environmental impact assessment and how might you verify these predictions?*

Possible responses:

- Look for documentation of the rationale which justifies the validity historical trends or other projects that are appropriate to use in assessing the impacts of this project and alternatives
- Seek additional expert opinion.

The environmental impact assessment process often involves the use of technical experts who provide their opinions on various components of the document.

Can I have another volunteer to read the next statement from handout # 6-1. I would like you to evaluate it as we have done before in this session.

READ THE FOLLOWING STATEMENT. ASK SIMILAR QUESTIONS AS IN THE PREVIOUS THREE EXAMPLE STATEMENT DISCUSSIONS.

EXPERT OPINION

•“A recognized transportation expert reviewed the results of a 1993 traffic study and determined that there would be no impact from the proposed soccer stadium on the flow of traffic within the city.”

KEY POINTS TO ADDRESS DURING DISCUSSION:

Expert Opinion- Experts who were consulted and the source of any data utilized by them to evaluate environmental impact must be identified. The environmental impact assessment document should contain the necessary information to contact the reference and verify the suitability of the data. Verification of the qualifications of experts should be a part of the review process.

OK. Let's go to the final statement on handout #6-1. Do I have another volunteer?

SEGMENTATION

“No potentially significant impacts that require mitigation have been identified during this phase of the proposed project.”

KEY POINTS TO ADDRESS DURING DISCUSSION:

Segmentation The potential impacts of connected actions should be analyzed in a single environmental impact assessment. Segmentation of a proposed project is not an acceptable approach to avoiding the need to mitigate significant environmental impacts.

Sometimes information is provided on potential environmental impacts for only one phase of a proposed project, when information on other phases is relevant. This is called “segmentation.” Segmentation always raises issues of integrity of the environmental impact assessment. Similarly, questions of the integrity of the environmental impact assessment and entire process are raised when environmental impacts that are in fact significant are either downplayed or hidden through segmentation.

PART B. Approach to Environmental Impacts Review (Group Discussion, 10 min.)

Let us review what we have covered so far:

- 1) *Environmental impacts can be to the natural or human (socioeconomic) environment.*
- 2) *Environmental impacts may be beneficial or adverse.*
- 3) *Primary, secondary, and cumulative impacts should all be assessed*
- 4) *The amount of information provided should be roughly equal for all reasonable and feasible alternatives.*
- 5) *The assessment should cover all stages of the proposed project from initial site preparation through site closure.*
- 6) *Appropriate assumptions and representative data should be used in valid and appropriate predictive techniques such as modeling, mapping or extrapolation, and precedent and expert judgement, to assess potential environmental impacts from both the proposed action and each alternative.*

That is a lot to remember, but it is all important for an effective review. To help you stay on track, in this part of our discussion we will formalize these ideas into an overall framework that you can use to understand your role in the review of environmental impacts.

We return once again to the Reviewer's Focus.

REFER TO "REVIEWER'S FOCUS" FLIPCHART (#2-5) POSTED ON THE WALL FROM SESSION 2.

As you will recall, there are six things that you as a reviewer should focus on during review of an environmental impact assessment document:

- *Coverage and Completeness*
- *Significance*
- *Adequacy*
- *Accuracy*
- *Integrity*
- *Influence.*

These are the areas you should focus on during review of every part of the document, including the chapter on environmental impacts. Have we discussed and proposed sufficient

information for you to conduct a review for each of these? To help you conduct a review of the environmental impact section of an environmental impact assessment and to recall all the things we have discussed, we have created a list of tools and techniques you can use in environmental impact review.

The first tool I would like to introduce is the Road Map for review of the environmental impact chapter of an environmental impact assessment document.

REVEAL FLIPCHART # 6-3 (ROAD MAP FOR ENVIRONMENTAL IMPACT REVIEW) AND REVIEW THE ELEMENTS AS A REVIEW OF THIS SESSION.

- *All natural and human (socioeconomic) environmental impacts are identified*
- *Types of impacts include primary, secondary, and cumulative*
- *Detail on impacts is balanced among reasonable and feasible alternatives*
- *Both beneficial and adverse environmental impacts are identified*
- *Potential environmental impacts are identified for all phases of the proposed project*
- *Models, experts, and criteria accurately used to assess the significance of environmental impacts are valid for appropriate circumstances*
- *Data, information and key assumptions are representative, accurate, and current*
- *Appropriate criteria are used to assess significance*
- *Are there any questions about this road map?*

ANSWER ANY QUESTIONS ABOUT THE ROAD MAP.

All right, if we are to give more tools to our solo reviewer to empower solo, what else might we include?

REFER TO FLIPCHART # 3-4 (TOOLS AND TECHNIQUES).

There are a number of other tools and techniques that are effective in helping a reviewer determine whether the environmental impacts chapter of an environmental impact assessment is complete, adequate, of sufficient quality, focused on significant issues, preserves the integrity of the process, etc. As we have mentioned before, each reviewer

develops his or her own most effective tools and techniques for environmental impact assessment review during the course of his or her career.

Last session we introduced the use of a checklist for the description of environmental setting review but only half of the groups were able to use it in their review. I would now like to give each of you a checklist for environmental impact review.

DISTRIBUTE HANDOUT # 6-2 (IMPACT ASSESSMENT REVIEW CHECKLIST).

As you can see, this checklist contains many of the same questions we posed in our road map as well as a comprehensive listing of the environment and impact types. I would like to emphasize that you do not have to use a checklist or any other particular tool. Different reviewers feel comfortable using different tools and techniques. However, this checklist can help many of you stay on track during environmental impact review.

The use of checklists and other tools cannot substitute for careful, probing analysis by a reviewer. For example, the tools and techniques we have introduced will not automatically reveal significant relationships between different environmental impacts on the same resource. Issues such as cumulative environmental impacts usually require the expert judgement of experienced reviewers.

CLOSE THE DISCUSSION ON TOOLS AND TECHNIQUES WITH A REVIEW OF THE MATERIALS INCLUDED IN THE RESOURCE MANUAL FOR THE COURSE. REMIND PARTICIPANTS THAT HELPFUL INFORMATION RELEVANT TO ENVIRONMENTAL IMPACT REVIEW CAN BE FOUND IN THE RESOURCE MANUAL:

- 1.3.6 Environmental Impact Checklists
- 1.5.6 Computer-Aided Environmental Assessment
- 1.5.7 Impact Identification
- 1.5.8 Impact Analysis and Prediction
- 1.5.9 Summary of Fate Models Used in Environmental Assessment
- 1.5.12 Determination of Significance
- 1.5.13 Definition for Describing Significance of Impacts
- 1.5.14 Determining Impact Significance in Environmental Impact Assessments
- 2.1 Environmental Impact Assessment Methodologies
- 2.2 Environmental Impact Assessment Evaluation Checklist
- 3.1 (World Bank Project Specific Impacts) Industrial Impacts
- 5 Relevant US EPA Guidance for Environmental Impact Assessment Reviewers
- 7 Environmental Impact Assessment Resources on the Internet and Compact Disc

(THESE SECTION NUMBERS APPLY IF USING THE U.S., ENGLISH VERSION, OF THE RESOURCE MANUAL)

These resources provide a range of examples tools and data to use in your review of the proposed project and to compare during your review.

DISCUSS HOW THIS TYPE OF INFORMATION MAY BE USEFUL TO A REVIEWER TO UNDERSTAND THE DIFFERENT CONSIDERATIONS THAT HAVE BEEN MADE DURING CONDUCT OF THE ANALYSIS AND DEVELOPMENT OF THE DOCUMENT.

- *For future reference we have included a copy of the environmental impacts evaluation checklist in Appendix A of the Student Text, and in the Resource Manual beginning on page 2.2-1. So you should feel free to mark up and use the copy we have just distributed.*
- *We have also already mentioned one of the other resources available to you in the Resource Manual, the document titled "Impact Analysis and Prediction" which starts on page 1.5.8-1.*
- *When you complete your review and report out to the group we would like you to also reflect upon the situation of an empowered reviewer who could also seek advice and assistance from other subject matter experts in the areas where environmental impacts are predicted or other reviewers. The key in seeking advice from outside experts is to know when to seek it, from whom, and what questions to ask. We hope you will leave this course with more of a sense for answers to these questions but this is something that each reviewer develops over the course of their career.*

PART C. Environmental Impacts Review (Small Group Case Study Review, approximately 80 minutes (plus 60 minutes for lunch).

INTRODUCE THE SESSION BEFORE LUNCH.

DISTRIBUTE HANDOUT 6-3 (INSTRUCTIONS FOR REVIEW OF IMPACTS IN CASE STUDIES).

We will break into our case study review groups again for a review exercise on environmental impacts. Refer to the road map we have created in order to keep your review focused and effective. Feel free to use the Environmental Impact Assessment Review Checklist or the resources we pointed out in the Resource Manual.

You will have a total of one hour and twenty minutes to conduct this review of the environmental impact component of a environmental impact assessment. You will need to do several things during the time you spend on the case study.

- 1) determine how much time you will need as individuals to review the document,*
- 2) convene as a group to discuss your observations and questions, and share ideas,*

3) prepare a group report. Alternative points of view can be considered in the report. We will take a one hour break for lunch in approximately 25 minutes. This will give you time to individually review the material and discuss a group strategy for evaluating the environmental impacts presented in the case studies. After lunch, the discussion groups will reconvene to continue discussing the environmental impacts and prepare for reporting out to the full class.

- *Does anyone have any questions?*

ANSWER ANY QUESTIONS THE PARTICIPANTS HAVE ON THE PROCESS THEY ARE TO FOLLOW.

DURING THE ACTIVITY, YOU SHOULD DO THE FOLLOWING THINGS:

- MONITOR TIME AND EITHER MAKE VERBAL ANNOUNCEMENTS OF OR POST THE TIME REMAINING;
- CIRCULATE TO ENSURE SMALL GROUPS FOCUS ON REVIEWING ENVIRONMENTAL IMPACTS;
- CLARIFY ANY CONFUSION THE PARTICIPANTS HAVE ABOUT THE INSTRUCTIONS OR THE REVIEW PROCESS;

We are now going to break for lunch. It is now _____; please return promptly in one hour at _____.

BREAK FOR LUNCH

Your small groups will have until _____ (2 hours and 20 minutes from now, including the 1 hour lunch) I will announce when 10 minutes are remaining so you will know when to select a speaker and wrap up.

DURING THE ACTIVITY, YOU SHOULD DO THE FOLLOWING THINGS:

- DETERMINE THE ORDER OF THE SMALL GROUP'S REPORT PRESENTATIONS;
- TEN MINUTES BEFORE THE END OF THE ACTIVITY, ANNOUNCE THE TIME REMAINING;
- FIVE MINUTES BEFORE THE END OF THE ACTIVITY, DIRECT EACH GROUP TO ELECT A SPOKESPERSON.

PART D. Report-Out on Environmental Impacts Review (Group Discussion, 15 min.)

Okay, it is time to re-convene and discuss the results of your review of environmental impacts. We are going to have each group BRIEFLY summarize their major findings from reviewing its document for environmental impacts. Each group should present for no more than THREE MINUTES. We are just trying to get a basic idea of your findings here. When giving your presentation, please try to focus on answering the questions posed by our road map.

REFER TO THE ROAD MAP FLIPCHART. IF YOU FEEL IT NECESSARY, READ IT TO THE GROUP. OTHERWISE, ASK THE GROUP SIMPLY TO KEEP THE ROAD MAP IN MIND.

HAVE EACH GROUP PRESENT ITS FINDINGS FOR UP TO THREE MINUTES. ENCOURAGE THE PARTICIPANTS TO ASK QUESTIONS FOLLOWING EACH REPORT.

- *Was the Road Map helpful? Did anyone use or refer to it? How would you modify it to better reflect your approach to the review?*

UPDATE ROAD MAP BASED ON PARTICIPANT COMMENTS.

- *One way to better influence how environmental impacts are identified and assessed is to take the opportunity to be proactive. What might you do in this situation if you had been in a position to be a proactive reviewer? What if the project proponent had come to you, or you to them, prior to the identification of environmental impacts. What if you were able to make suggestions about how the proponent could identify and assess environmental impacts?*

A proactive reviewer can recommend early on that a particular predictive model would work well to predict the kind of impacts anticipated with the proposed project. He or she can work with the project proponent or draw in other experts to ensure that all significant impacts are identified and adequately evaluated before the environmental impact assessment document reaches the draft or final stage.

PART E. Advice to Reviewers List (Group Discussion, 10 min.)

- *What kinds of things you would tell other reviewers to "watch out for" when reviewing this element of an environmental impact assessment document.*

ADD TO THE "ADVICE TO REVIEWERS" FLIPCHART AS APPROPRIATE OR EMPHASIZE EXISTING POINTS. LEAD THE DISCUSSION TO IDENTIFY THE THINGS THAT CAN POSE PROBLEMS FOR AN ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT REVIEWER.

- *What have you learned from experiences here or during your career in the analysis or documentation of environmental impacts that you would caution other reviewers about?*

REFER FREQUENTLY TO THE ROAD MAP.

- *What other parts of the environmental impact assessment document would it have been useful for you to review for a better understanding of the environmental impacts chapter?*

Now I would like to ask you how you think your review of environmental impacts would have gone in each of the other review situations we discussed earlier. Specifically,

- *What if you had been in a position to be a proactive reviewer, if the project proponent had come to you or you to them early in the process, say, prior to assessing potential environmental impacts, and you were able to make suggestions about methods and models that could be used, and to discuss assumptions about significance?*

ALLOW DISCUSSION FOR UP TO TWO MINUTES.

- *How about if you had been an empowered reviewer? What resources, or sources of information would you want to have to conduct a better review?*

Our next session will be on reviewing the environmental impact assessment document for mitigation. Our next facilitator will be [INTRODUCE NEXT FACILITATOR], who will lead us through this session, in which we will go over different types of mitigation (and their relative desirability) and will review a proposed mitigation plan in our small groups.

ANNOUNCE THE STARTING TIME FOR SESSION 7 AND ANY OTHER NECESSARY LOGISTICAL ARRANGEMENTS OR COMMENTS.

SESSION 7: REVIEW OF PROPOSED MITIGATION

MATERIALS:		TIME: 1 hour 40 minutes	
Flip charts:	7-1 Hierarchy of Mitigation Types	SETTING: Group discussion Small group exercise	
	7-2 Road Map for Mitigation Review (1)		
	7-3 Road Map for Mitigation Review (2)		
Handouts:	7-1 Proposed Mitigation - Document Excerpts		
	7-2 Instructions for Review of Proposed Mitigation		
Other:	Case Studies		
	Resource Manual (e.g., 1.5.7, 1.5.15, 1.7, 3.2)		
TEXT:			
4.6 Mitigation and Monitoring Measures			
PURPOSE:	<ul style="list-style-type: none">● To introduce a hierarchy of environmental impact mitigation types● To introduce the concept of mitigation effectiveness● To introduce a road map for mitigation review● To practice mitigation review on real environmental impact assessments● To add to the advice for reviewers of mitigation		
TIME BREAKDOWN:			
Part A	Types of Mitigation and Review of Proposed Mitigation	Group Discussion	10 minutes
Part B	Mitigation Effectiveness	Group Discussion	10 minutes
Part C	Approach to Mitigation Review	Group Discussion	15 minutes
Part D	Review of Proposed Mitigation (includes break)	Small Group Exercise	45 minutes
Part E	Report-Out on Review of Proposed Mitigation Review	Group Discussion	15 minutes
Part F	Advice to Reviewers	Group Discussion	05 minutes

PART A. Types of Mitigation and Review of Coverage of Proposed Mitigation (Group Discussion, 10 min.)

One of the important results we want from the environmental impact assessment process is the opportunity to avoid or mitigate adverse environmental impacts associated with a proposed project. The reviewer needs to consider:

- 1) *Whether mitigation measures are included in the environmental impact assessment document or some other related document(s);*

- 2) *Whether the proposed mitigation is complete;*
- 3) *Whether the mitigation is adequate and reflective of the significance of the environmental impact;*
- 4) *How effective mitigation will be if implemented; and*
- 5) *How much selection of a preferred alternative depends upon the successful implementation of proposed mitigation;*

We will discuss these issues, as well as explore the approaches a reviewer takes in evaluating the mitigation and monitoring plans.

- *First, why would you want to include information about mitigation measures within an environmental impact assessment?*

Possible responses:

- Requirement as a condition of project approval
- Consideration in the selection of the preferred alternative
- To enable the selection of a proposed alternative when it would result in less impact to the environment
- The environmental impact assessment process itself facilitates the identification of mitigation measures.

- *Do mitigation measures have to address opportunities to mitigate all adverse impacts to make it complete?*

Mitigation measures should be proposed for all primary, secondary and cumulative impacts, long term and short term, for all phases of a proposed project as relevant during the planning, design, construction, operation and/or closure phases of a proposed project, where it is reasonable and feasible both technically and economically to consider in the decision making on the proposed project.

- *What importance does the significance of an environmental impact play in reviewer expectations for mitigation measures to be identified in the environmental impact assessment document?*

The significance of an environmental impact plays a part as well. Most of the analysis and data should focus on mitigating the more significant potential environmental impacts, rather than on potential impacts of lesser significance.

- *What are some general options for mitigating adverse environmental impacts that might be identified in an environmental impact assessment?*

ALLOW 3-5 SUGGESTIONS. THEN REVEAL FLIPCHART # 7-1 (HIERARCHY OF MITIGATION TYPES).

Mitigation is a tool employed to avoid, reduce, or correct adverse environmental impacts, or to compensate for them after they have occurred.

Let's review the different types of mitigation and how a reviewer would consider whether the proposed mitigation is complete:

READ ALL OF THE MITIGATION TYPES TO THE GROUP. INCLUDE THE MORE DETAILED LANGUAGE PRESENTED HERE:

- *Avoid or prevent the environmental impact altogether by not taking a certain action or parts of an action.*
- *Minimize environmental impacts by limiting the degree or magnitude of the action and its implementation.*
- *Reduce or eliminate the environmental impact over time by preservation and maintenance operations during the life of the project.*
- *Correct the environmental impact by repairing, rehabilitating, or restoring the existing environment.*
- *Compensate for the environmental impact by replacing or providing substitute resources or environments.*

You will notice that these mitigation types are presented in a specific order. We have placed them in a hierarchy that orders them from the most desirable type of measure at the top to the least desirable type of measure at the bottom. Why did we do this?

LISTEN TO PARTICIPANT RESPONSES.

All mitigation measures are valid, but it is best to try to accomplish higher level measures before resorting to lower level measures; the reviewer should consider whether higher order mitigation opportunities were overlooked.

Of course, more than one of these mitigation types can be implemented at the same time. For example, a project proponent may minimize an impact as much as possible, and then compensate for whatever remaining impact actually occurs.

- *Who can give us an example from the course materials or from their own experience, of a mitigation measure that avoided or prevented an environmental impact?*
- *How about an example of a mitigation measure that minimized an environmental impact?*
- *How about an example of a mitigation measure that reduced or eliminated an impact?*
- *How about an example of a mitigation measure that corrected an environmental impact?*
- *Finally, how about a mitigation measure that compensated for an environmental impact?*

Coverage

- *What information should be included in the mitigation component of the environmental impact assessment for it to be complete?*

RECORD PARTICIPANTS' ANSWERS ON A BLANK FLIP CHART

- Possible responses:
- Description of the action
 - Schedule for implementation
 - Costs and sources of funding
 - Benefits
 - Feasibility assessment
 - Mitigation proposed for all adverse primary, secondary, and cumulative impacts
 - Discussion reflects the significance of the adverse environmental impact

Proposed mitigation measures follow the mitigation hierarchy.

PART B. Mitigation Effectiveness (Group Discussion, 10 min.)

We have discussed the types of mitigation measures that can be implemented, and ordered them from most to least desirable. What we have not done yet is talk about how a reviewer can determine whether the proposed mitigation measures will be effective. This is something that reviewers must answer every time they review an environmental impact assessment. If mitigation measures are proposed, but would have little effect on actually mitigating an environmental impact, of what value are they?

Now let us discuss how to evaluate the information presented to determine the effectiveness of proposed mitigation.

TITLE A BLANK FLIP CHART "MITIGATION EFFECTIVENESS."

- *What questions would you want answered to ensure that proposed mitigation measures will be effective?*

RECORD PARTICIPANT RESPONSES ON THE FLIP CHART AND FACILITATE A DISCUSSION ABOUT MITIGATION EFFECTIVENESS.

- Possible responses:
- Whether the mitigation will do what it is credited with doing to mitigate the environmental impacts
 - Whether the mitigation actions are real and will be carried out: are the mitigation measures clear and specific, or general and vague?
 - Whether the mitigation measures are realistic, technically and financially feasible and whether a similar mitigation measure has been successfully utilized on a similar project
 - Whether there is a high likelihood they can be implemented:
 - Are there adequate financial and non-financial resources to implement the measures?
 - Are the measures socially and culturally acceptable?
 - Are clear implementation plans provided, including schedules and interim milestones?
 - Are responsible parties identified and committed to implementation?

- *Assuming proposed mitigation will be effective, will it be adequate? how much mitigation is necessary? Do all projected environmental impacts have to be mitigated down to zero impact?*

ALLOW DISCUSSION TO LAST UP TO THREE MINUTES.

- Possible responses:
- A threshold for each affected resource must be set for mitigation to be meaningful
 - Often mitigating the last 5 percent of environmental impact is more costly and difficult than the previous 95 percent of environmental impact
 - Reviewers need to be reasonable in their demands for mitigation effectiveness (bearing the above in mind)
 - There is a limit to the ability to mitigate or avoid all environmental impacts.

Country specific laws, regulations and criteria for determining significance must also be factored into the context for reviewing the mitigation component of an environmental impact

assessment. Appendix C.2 of the Student Text provides useful information in evaluating significance.

- *How can you determine what kinds of mitigation measures are appropriate for different types of environmental impacts?*

This is an important question. Understanding appropriate mitigation measures requires and understanding of the mitigation measure at issue, the type of impact that is being mitigated, and the type of affected environment.

Tools and Techniques

The answer to this question is really beyond the ability of a solo reviewer to be able to answer unless you have had a lot of experience with that type of project. One thing you can do is empower yourselves with information and a network of experts you can draw upon.

REFER TO THE TOOLS AND TECHNIQUES ON FLIPCHART:

To empower our solo reviewer, one of the resources you can use is in the Resource Manual. An important resource you can use to identify potential mitigation is the "Project Specific Mitigation Measures" tables developed by the World Bank in Section 3.2 of the Resource Manual. This document contains 160 pages of mitigation measures appropriate for specific types of environmental impacts. These tables were created by the World Bank. They are broken down by topical area, such as Agroindustry, Dams and Reservoirs, Fisheries, Natural Forest Management, etc.

ALSO INFORM PARTICIPANTS THAT ADDITIONAL HELPFUL INFORMATION RELEVANT TO MITIGATION AND MONITORING CAN BE FOUND IN THE FOLLOWING SECTIONS:

- 1.5.7 Impact Identification (needs and tools for impact mitigation).
- 1.5.15 Mitigation (a description of Council on Environmental Quality categories of mitigation and more description of needs and tools for impact mitigation).

DISCUSS HOW THIS TYPE OF INFORMATION MAY BE USEFUL TO A REVIEWER IN UNDERSTANDING THE DIFFERENT CONSIDERATIONS THAT HAVE BEEN MADE DURING THE ANALYSIS AND DEVELOPMENT OF THE DOCUMENT.

These are just a few examples of the kinds of resources that you can draw upon to help you conduct an effective review

- *If the environmental impact assessment document does not adequately make the critical points you feel should be made, it is your duty to make your opinion known.*

Let's see how you would respond to some example proposals for mitigation from several environmental impact assessment documents:

DISTRIBUTE HANDOUT # 7-1 (MITIGATION - DOCUMENT EXCERPTS).

ASK FOR A VOLUNTEER TO READ EACH STATEMENT. AFTER EACH STATEMENT IS READ, FOCUS ON GETTING PARTICIPANTS TO ANSWER THE FOLLOWING POINTS:

- 1) WHETHER THE STATEMENT WAS SUFFICIENT OR INSUFFICIENT AND WHY;
- 2) IF NOT SUFFICIENT, WHAT ADDITIONAL INFORMATION WOULD THEY WANT TO SEE?
- 3) CIRCUMSTANCES IN WHICH THE STATEMENT MAY OR MAY NOT BE ACCEPTABLE.

ALLOW 5 MINUTES OF DISCUSSION FOR EACH STATEMENT. INCLUDE THE KEY POINTS IDENTIFIED BELOW.

Key points to address during discussion:

Pollution Control	Compliance does not establish insignificance. The suitability of local standards to adequately mitigate identified environmental impacts must be evaluated. Local standards should be compared with other standards if available. In addition, the control technology selected may have environmental impacts which must be addressed.
Flora and Fauna	The proposed mitigation must demonstrate that it is suitable to local environmental conditions including factors such as climate, hydrology, and use of native species.
Socioeconomics	Undocumented potential actions, not under the direct control of the agency responsible for the proposed project, cannot be used as the basis for mitigating significant impacts resulting from the proposed project. Specific employment characteristics (i.e., skilled versus unskilled) of the affected population must be addressed in the mitigation plan.

Integrity

- *What might a reviewer want to watch out for about the integrity of the proposed mitigation in the environmental impact assessment document?*

Without some assurance of implementation and follow up, approval of poorly conceived projects may be based upon promises of mitigation that are not realized.

PART C. Approach to Mitigation Review (Group Discussion, 25 min.)

We have answered the questions why information about mitigation measures should be included in an environmental impact assessment document, what should be included, and what makes mitigation measures effective.

All of the ideas we have discussed should be kept in mind when reviewing mitigation. Our road map will help you remember these points and maintain your focus on what is important when you conduct your review. It tracks with the six reviewer focus items that you as a reviewer should focus on throughout the review of an environmental impact assessment document.

POINT BRIEFLY TO THE REVIEWER'S FOCUS FLIPCHART POSTED ON THE WALL FROM SESSION 2.

REVEAL FLIPCHARTS # 7-2 (ROAD MAP FOR MITIGATION REVIEW (1)) AND # 7-3 (ROAD MAP FOR MITIGATION REVIEW (2)). POST ON TWO FLIPCHART STANDS SO THAT BOTH ARE SIMULTANEOUSLY VISIBLE.

Road Map:

- *Specific mitigation measures are proposed*
- *All significant adverse environmental impacts are addressed by the mitigation plan*
- *Measures are proposed for:*
 - *All types of environmental impacts*
 - *All phases of the project*
 - *All environment types*
- *Preferred mitigation measures at the top of the mitigation type hierarchy are considered*
- *Mitigation measures are described in sufficient detail relative to the significance of environmental impact*
- *Mitigation measures are:*
 - *Technically and financially feasible with adequate financial and non-financial resources to implement the measures*
 - *Socially and culturally acceptable*

- *Implementation plans include schedules and interim milestones, and timing is consistent with other factors presented in the assessment of impact*
- *Responsible parties are identified and committed to implementation.*
- *Are there any questions about this Road Map?*

ANSWER ANY QUESTIONS ABOUT THE ROAD MAP. IN ANSWERING QUESTIONS, REFER PARTICIPANTS WHEREVER POSSIBLE BACK TO THE FLIP CHARTS THEY HELPED CREATE DURING PARTS A AND B. IN ADDITION, MENTION THAT THIS ROAD MAP CAN BE FOUND IN SECTION 4.6.1 OF THE STUDENT TEXT.

Please keep the World Bank tables and the other documents in the Resource Manual in mind, as well as our Road Map and other tools and techniques, when we engage in a small group exercise to review the mitigation chapters of our environmental impact assessment case study documents.

PART D. Review of Proposed Mitigation (Small Group Exercise, 30 min., plus a fifteen minute break if adequate time remains).

We will now break into our case study review groups to review the proposed mitigation within the case study environmental impact assessments. After reviewing your case studies for approximately 30 minutes, if time remains, feel free to take up to a fifteen minute break before re-convening.

DISTRIBUTE HANDOUT # 7-2 (INSTRUCTIONS FOR REVIEW OF PROPOSED MITIGATION).

In conducting your review, assume the environmental impact assessment is required to identify mitigation options for each alternative. Refer to the Road Map we have created to keep your review focused and effective, as well as the tools and techniques we presented in Session 3. Also, feel free to use the World Bank tables, or other resources available in the Resource Manual.

You will have a total of thirty minutes to conduct this review of mitigation, forty-five minutes if you choose not to take a break. The approach is the same as in the other sessions.

ANSWER ANY QUESTIONS THE PARTICIPANTS HAVE ON THE ASSIGNMENT.

It is now _____. Your small groups will have until _____ (45 minutes from now) to review this element of the environmental impact assessment, discuss your observations and questions, and prepare your reports. I will announce when 10 minutes are left so you will know how to structure your remaining time.

DURING THE ACTIVITY, YOU SHOULD DO THE FOLLOWING THINGS:

- MONITOR TIME AND EITHER MAKE VERBAL ANNOUNCEMENTS OF OR POST THE TIME REMAINING;
- CIRCULATE TO ENSURE SMALL GROUPS FOCUS ON REVIEWING MITIGATION;
- CLARIFY ANY CONFUSION THE PARTICIPANTS HAVE ABOUT THE INSTRUCTIONS OR THE REVIEW PROCESS;
- DETERMINE THE ORDER OF THE SMALL GROUP'S REPORT PRESENTATIONS;
- TEN MINUTES BEFORE THE END OF THE ACTIVITY, ANNOUNCE THE TIME REMAINING;
- FIVE MINUTES BEFORE THE END OF THE ACTIVITY, DIRECT EACH GROUP TO ELECT A SPOKESPERSON WHO HAS NOT PREVIOUSLY PRESENTED.

Part E. Report-Out on Review of Proposed Mitigation (Group Discussion, 15 min.)

Okay, it is time to re-convene and discuss the results of your review of Mitigation. BRIEFLY summarize your major findings. Please keep your presentations to less than THREE MINUTES if possible.

POINT TO THE ROAD MAP POSTED ON THE WALL AND DIRECT THEM TO FOCUS ON ROAD MAP ITEMS AS MUCH AS POSSIBLE.

ENCOURAGE THE PARTICIPANTS TO ASK QUESTIONS FOLLOWING EACH REPORT.

Now that you have had the experience of reviewing the mitigation portion of environmental impact assessment documents, let us review the process you used and the range of situations you may find yourself in.

- *Was the Road Map helpful? Did anyone use or refer to it? How would you modify it to better reflect your approach to the review? Were the other tools and techniques and reference materials helpful? Were you able to keep focused on what you identified as the most significant concerns? What other information or resources would you have liked to have?*

UPDATE ROAD MAP BASED ON PARTICIPANT COMMENTS.

- *What other portions of the document might be relevant in reviewing this portion of the environmental impact assessment?*

Now I would like to ask you how you think your review of mitigation would have gone in each of the other review situations we discussed earlier. Specifically,

THE PURPOSE OF THIS PART OF THE EXERCISE IS TO GET PARTICIPANTS THINKING ABOUT THESE DIFFERENT REVIEWER SCENARIOS. IT IS NOT NECESSARY TO RECORD RESPONSES.

- *What if you had been in a position to be a proactive reviewer? What if the project proponent had come to you, or you to them, early in the process — say, prior to the identification of mitigation options. What if you were able to make suggestions about how the proponent could select mitigation measures?*
- *How would your review be different if you were able to call upon other experts? Are there other resources or sources of information that you have not yet mentioned that would allow you to most effectively conduct your review?*

REFER BACK TO THE LIST OF TOOLS AND TECHNIQUES

PART F. Advice to Reviewers (Group Discussion, 5 min.)

- *What lessons or advice to other reviewers would you give after having gone through this portion of the review?*

ADD TO "ADVICE TO REVIEWERS" LIST AS APPROPRIATE, OR REEMPHASIZE POINTS ALREADY MADE.

ALLOW DISCUSSION FOR 2-3 MINUTES.

- *What specific examples of these issues have you seen or heard about in real situations?*

CONTINUE THE DISCUSSION FOR APPROXIMATELY ANOTHER MINUTE. RECORD THE PARTICIPANT'S COMMENTS ON THE FLIPCHART. REFER TO THE ROAD MAP. THE ADVISE TO REVIEWERS LIST ITEMS SHOULD BE CLOSELY RELATED TO IT.

CLOSE THE SESSION FOR THE DAY.

- *Does any one have any questions about the review process we have covered so far?*

TOMORROW WE WILL APPLY THE INFORMATION WE HAVE DISCUSSED DURING THE REVIEW OF INDIVIDUAL ELEMENTS OF AN ENVIRONMENTAL IMPACT ASSESSMENT TO THE REVIEW OF A DRAFT DOCUMENT AS A WHOLE.

Our next session will be on reviewing a draft environmental impact assessment document. [NAME OF NEXT FACILITATOR] will lead us through this step in the EIA process. In the next session, we will begin a comprehensive review of a draft EIA in its entirety that we will continue for the remainder of the course.

SESSION 8A: INTRODUCTION TO PREPARING AND COMMUNICATING REVIEWER COMMENTS ON A DRAFT ENVIRONMENTAL IMPACT ASSESSMENT

MATERIALS:		TIME: 1 hour
Flip charts:	3-1 Road Map for Overall Review (1)	SETTING: Group discussion Small group exercise
	3-2 Road Map for Overall Review (2)	
	8-1 Road Map for Review of Draft Environmental Impact Assessment	
Handouts: 8-1 Instructions for Management Plan Development		
Other: Case Studies		
TEXT:		
3.3 Reviewers and Review Teams		
3.4 Reviewer's Role in Each Element of the Environmental Impact Assessment Process		
3.4.2 Scoping: Environmental Impact Assessment Document Development		
4.1 Approaches to Review: Analyzing the Elements of the Environmental Impact Assessment		
Appendix E Road Maps and Tools and Techniques		
PURPOSE:		
<ul style="list-style-type: none"> ● Introduce participants to the integrated review of the draft case study environmental impact assessments ● Experience role of lead reviewer and review team organization and planning concepts in design and implementation of a management plan ● Begin comprehensive and integrated review of a draft environmental impact assessment in its entirety. 		
TIME BREAKDOWN:		
Part A. Draft Environmental Impact Assessment Review	Group Discussion	15 minutes
Part B. Development of a Management Plan	Small Group Exercise	45 minutes

Part A. Draft Environmental Impact Assessment Review (Group Discussion 15 min.)

Over the past two days we have reviewed individual sections of four draft environmental impact assessments. We will now have an opportunity to review and comment on the draft documents in their entirety. Do you recall the road map for overall review of a draft environmental impact assessment introduced on the first day of the course?

REFER TO FLIPCHARTS # 3-1 AND # 3-2 (ROAD MAP FOR OVERALL ENVIRONMENTAL IMPACT ASSESSMENT REVIEW (1) AND (2)), POINT OUT ELEMENT BY ELEMENT APPROACH.

Back in Session 3 we simply scanned the document for significant environmental impacts and only looked briefly at documented scoping of issues and interested parties.

Advantages of integrated review

- *What are the advantages of reviewing the entire document now that we are more familiar with the individual components?*

Possible responses:

- Evaluate the flow and consistency of information and the integration of the document and the process in a way that cannot be done in isolation
- Review the internal logic (integrity) of the data presented and the analysis conducted
- Identify the most significant issues, concerns, and questions
- Review the breadth of any data gaps.

An integrated review helps to identify significant issues, common themes, internal logic, and consistency of assumptions.

POINT OUT AND REVIEW BRIEFLY THE DIFFERENT APPROACHES TO OVERALL REVIEW.

REVEAL FLIPCHART 8-1 (ROAD MAP FOR DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REVIEW) SO THAT BOTH THE ROAD MAP FOR OVERALL REVIEW AND ROAD MAP FOR DRAFT REVIEW ARE VISIBLE.

DISTRIBUTE HANDOUT #8-1 (INSTRUCTIONS FOR CASE STUDY REVIEW).

Draft Environmental Impact Assessment Review Assignments

Today and tomorrow you will be completing five tasks related to review of your draft environmental impact assessment documents. You will:

- 1) Develop a management plan designating the lead and associate reviewers and their roles, products and schedule;*
- 2) Implement the management plan;*
- 3) Conduct an integrated review and identify the most significant issues;*
- 4) Communicate the results of the review; and*
- 5) Consider public comments on the proposed project.*

We will begin now with the first task and resume with our group discussion tomorrow morning.

The first task which you will do now, before you leave for the evening, is to prepare a management plan which will provide your group with an opportunity to experience a "lead reviewer" situation. You will be able to organize your group to maximize your reviewing capabilities and access to available resources.

This plan must:

- Assign specific review roles to all group members, including the role of the lead reviewer and associate reviewers; and*
- Establish a process to integrate the comments (i.e., subject matter integration).*

In this lead review situation, you need to determine how you will

- Use the maximum amount of the resources at your disposal (e.g., group members, past review comments, Resource Manual information, Student Text);*
- Consider the past comments you have made; and*
- Consider any new comments that are identified, particularly based on a new perspective of the entire document.*

After our group discussion, you will convene your groups and develop the management plan. By developing the management plan now, you will be able to decide how to best use your time this evening. Some of you may want to get a head start reading through the draft again more thoroughly so that you have more time to conduct this portion of the review.

Tomorrow morning, we will convene at 8:30 as usual as a larger group to review your assignments and introduce our road map for effective preparation and communication of reviewer comments. You will then have time to:

- Complete the lead and associate reviewer roles and implement the management plan you developed;*
- Step back from your individual roles and look at the "big picture" together as a group to identify significant issues; and*
- Develop your comment letter.*

You will be presenting your comment letters right after lunch.

- *Are there any questions about what you are being asked to do before we wrap up tonight?*
- *Any questions about what we covered today?*

PART B. Development of a Management Plan (Small Group Exercise, 45 min.)

Each group will have about 45 minutes for development of your management plan. All of the facilitators will be available during the review to assist you.

DISTRIBUTE HANDOUT # 8-1 (INSTRUCTIONS FOR MANAGEMENT PLAN DEVELOPMENT).

DURING THE EXERCISE, CIRCULATE THROUGHOUT THE ROOM TO DETERMINE IF THE PARTICIPANTS ARE HAVING ANY DIFFICULTIES OR ANY QUESTIONS ABOUT DEVELOPING A MANAGEMENT PLAN.

SESSION 8B: PREPARING AND COMMUNICATING REVIEWER COMMENTS ON A DRAFT ENVIRONMENTAL IMPACT ASSESSMENT

MATERIALS:		TIME:	1 hour Day 2 (see Session 8A)
Flipcharts:	3-1 Road Map for Overall Review (1)		6.0 hours Day 3
	3-2 Road Map for Overall Review (2)		
	8-1 Road Map for Review of Draft Environmental Impact Assessment	SETTING:	Group discussion
	8-2 Road Map for the Communication Letter		Small group exercise
Handouts:			
8-1 Instructions for Management Plan Development (Session 8A)			
8-2 Road Maps and Tools and Techniques			
8-3 Instructions for Communication Letter Development			
8-4 Selected Public Comment for Each Case Study			
Other:			
Case Studies			
Resource Manual (e.g., 1.5.17)			
TEXT:			
3.3 Reviewers and Review Teams			
3.4 Reviewer's Role in Each Element of the Environmental Impact Assessment Process			
3.4.2 Scoping: Environmental Impact Assessment Document Development			
4.1 Approaches to Review: Analyzing the Elements of the Environmental Impact Assessment			
Appendix A Environmental Impact Assessment Evaluation Checklist			
Appendix E Road Maps and Tools and Techniques			
PURPOSE:			
<ul style="list-style-type: none"> ● To apply lead reviewer and review team organization and planning concepts in design and implementation of a management plan ● To conduct a comprehensive and integrated review of a complete environmental impact assessment ● To develop a comment letter and understand what makes for effective communication of comments ● To consider the implications of public comments and concerns. 			

TIME BREAKDOWN:**Day 2:**

Part A. Draft Environmental Impact Assessment Review (see Session 8A)

Part B. Development of Management Plan (see Session 8A)

Day 3Part C. Preparing and Communicating Reviewer
Comments (including lunch)

Small Group Exercise 270 minutes

Part D. Review of Comment Letters Report-out

Group Discussion 60 minutes

Part E. Discussion of Public Comments

Group Discussion 30 minutes

NOTE: THIS SESSION BEGINS WITH PART C BECAUSE PARTS A AND B WERE COVERED IN SESSION 8A YESTERDAY.

PART C. Preparing and Communicating Reviewer Comments (4.5 hours, including a one hour lunch).

Let me give you a quick overview of what we will be doing this morning. First, you will have 4.5 hours to prepare your reviewer comments. Then, after an hour lunch, you will need to be back at one o'clock to report out on your comment letters.

I would like to focus our remaining group discussion time to discuss preparing and communicating comments.

We would like you to be able to anticipate all aspects of the development of comments on the draft as you move through this task. We have not really focused on the issue of communication yet.

- *Can you think of ways to approach writing the comment letter that would overcome some of the possible problems in communicating your concerns, issues, and questions?*

RECORD ON BLANK FLIPCHART TITLED "WRITING COMMENT LETTERS"

- Possible responses:
- Summarize similar comments into a single comment
 - Resolve conflicting comments
 - Identify which comments are mandatory actions and which are recommendations
 - Explain the basis for each comment instead of simply listing them
 - Link procedural concerns to environmental concerns
 - Explain the significance of the comment
 - Provide a context for the review comments in the comment letter.

REVEAL FLIPCHART 8-2 (ROAD MAP FOR THE COMMUNICATION LETTER). DISCUSS THE ITEMS LISTED. ASK THE PARTICIPANTS IF THERE IS ANYTHING THEY WOULD LIKE TO ADD OR AMEND.

Road Map

- *State bottom line including major recommendations up front and clearly*
- *Describe proposed project context*
- *If the purpose and need of the proposed project is in question, develop the link to the environmental concerns*
- *Distinguish what is mandatory, what is significant*
- *Provide a description of the substantive and/or procedural concerns*
- *Demonstrate sensitivity to interests and affected community*
- *Provide recommendations for addressing the concerns*

When framing the letter, remember:

- 1) *It is important to have a context for the comments;*
- 2) *An overall assessment of the document should be the first paragraph;*
- 3) *The most important comments should come before those of lesser importance;*

Remember that we are trying to get the decision maker and the project proponent to improve or correct the document, so it is important to make specific recommendations on what they should do. Remember how your comments and their delivery can affect the extent to which you can influence how a project proponent or preparer of the environmental impact assessment will respond to them.

4) *Be clear to distinguish:*

- *What is needed in the document and why?*
- *What will be mandatory to conform to specific legal requirements?*
- *What will be discretionary but of significance to decision making?*
- *What will the consequences be for going forward with the proposed project?*

- *Consider the different perspectives of the different parties involved and/or affected by the proposed project (e.g., the project proponents of the document, the affected and interested parties, your agency).*

5) Communicate the results of your review in a concise and clear set of statements.

Sometimes when you have many levels and types of comments it becomes difficult to convey how serious your comments are to the future approval of the proposed project as planned, or to the acceptance of a final approved environmental impact assessment. Countries and organizations sometimes have key words they use to signal the meaning of their comments and how seriously they are made. In one way or another these are designed to convey what is accomplished through the rating system used within the United States to clearly express the intent and overall findings of the review. The U.S. Environmental Protection Agency rating system criteria for review of draft environmental impact assessments is described in section 1.5.17 of the Resource Manual. The system provides criteria for assessing the environmental impact of an action and the adequacy of the document. In this system the environmental impact of the proposed project is rated as lack of objections, environmental concerns, environmental objections, or environmentally unsatisfactory. The system also rates the overall adequacy of the document using the following categories: adequate, insufficient information, and inadequate. The rating system has enabled comments to be conveyed in a consistent manner to document preparers.

Add a brief explanation. Keep in mind your choice of words and what they convey about the comments as a whole. Remember, each group will have three and a half hours to develop the comment letter.

When you report out after lunch today, each group will present its comment letter. Please actually write out and be prepared to read the introductory paragraph that summarizes the "bottom line," and develop specific recommendations that you would like to see carried out recorded on flipcharts. Also, be prepared to discuss your management approach, assigned roles, and to evaluate its success.

We will discuss the response to public comments on the review process after each group has conducted its presentation.

DISTRIBUTE HANDOUT # 8-2 (ROAD MAPS AND TOOLS AND TECHNIQUES)

DISTRIBUTE HANDOUT # 8-3 (INSTRUCTIONS FOR COMMENT LETTER DEVELOPMENT)

I am distributing a compilation of the road maps we have been discussing for the past two days to assist you in keeping in focus as you review the document. There is a road map for each component of the review: overall review; purpose and need and alternatives; describing the environmental setting; environmental impacts; and mitigation. All road maps are also

located in Appendix E of your Student Text. I am also distributing instructions to guide you in developing the Comment Letter.

Remember to use the information included in your Resource Manual for tools such as checklists, impact assessment methodologies, and the U.S. Environmental Protection Agency rating system. You may want to use the checklists you have used throughout the earlier sessions to identify additional review comments.

AT 12:00, NOTIFY THE GROUPS THAT THEY SHOULD BREAK FOR LUNCH. INDICATE THAT THEY SHOULD RETURN PROMPTLY IN ONE HOUR AND BE PREPARED TO REPORT OUT ON THE COMMENT LETTERS THEY HAVE PREPARED.

Part D. Review of Comment Letters Report Out (Group Discussion, 60 min.)

ASK THE GROUPS TO REPORT OUT ONE AT A TIME. ALLOW EACH GROUP A MAXIMUM OF 15 MINUTES. YOU WILL NEED THE REMAINING TIME FOR A GENERAL DISCUSSION AT THE CLOSE OF THIS SECTION.

HAVE EACH GROUP:

- READ THE INTRODUCTORY PARAGRAPH OF ITS COMMENT LETTER;
- REVIEW THE SIGNIFICANT ISSUES THE GROUP LISTED ON A FLIPCHART.

ASK THE GROUPS TO EXPLAIN:

- IF THEY IDENTIFIED ANY NEW ISSUES CONDUCTING THE REVIEW THIS TIME;
- THE TYPES OF COMMENTS THEY DEEMED SIGNIFICANT, WHETHER THEY HAD DIFFERENT OPINIONS, AND WHY;
- THE TYPES OF ISSUES WITH THE INTEGRITY OF THE DOCUMENT AND ANALYSIS THAT THEY IDENTIFIED;
- THE TYPES OF MANDATORY ACTIONS THEY CONSIDERED;
- THE DIFFERENT PERSPECTIVES AND THE ISSUES OF CONCERN THEY CONSIDERED;
- WHAT BECAME CLEARER WHEN THEY READ THE DOCUMENT AS A WHOLE INSTEAD OF IN PARTS; AND
- HOW THE DIFFERENT SECTIONS RELATED.

ASK THE PARTICIPANTS TO LISTEN TO EACH GROUP AND DETERMINE IF THEY BELIEVE THE ENVIRONMENTAL IMPACT ASSESSMENT AND THE GOVERNMENT HAVE ADDRESSED THE CONCERNS THE PUBLIC MAY HAVE ON THIS PROPOSED ACTION.

ALSO ASK THE GROUPS TO EXPLAIN:

- HOW THEY ORGANIZED THEMSELVES FOR THE REVIEW, AND WHY THEY SELECTED THAT APPROACH.
- WHAT WORKED?
- WHAT DID NOT WORK?

AFTER ALL GROUPS HAVE REPORTED, LEAD A BRIEF DISCUSSION ON THE DIFFERENCES IN RESULTS FROM SESSION 3 AND SESSION 8.

- *Did any groups have the same comments at the end of the detailed reviews that they had at the beginning? How were the comments different? Which were of greatest use to the decision maker?*

Often, the review of the draft environmental impact assessment and preparation of the Comment Letter is the most demanding and time-sensitive aspect of reviews. This is an excellent time to have lots of help. When you conducted this review you had a team of reviewers with specific assignments. You developed a comment letter and provided it to the preparers of the environmental impact assessment. They will now respond to your comments by conducting any additional data collection and analysis you have required and revise the document accordingly.

- *If you were able to be "Proactive" in this situation, how could you conduct your job? How would your actions be different at this point in time? How would it affect your overall management strategy? What would the benefits be?*

Part E. Discussion of Public Comment (Group Discussion, 30 min.)

Frequently, you may not be the only reviewer of a document or the only individual with comments regarding the proposed project. The public and affected and interested parties may also comment. You may receive their comments in many formats (e.g., letters, newspaper articles, public meetings).

I am going to distribute the final environmental impact assessment documents for each case study to everyone and I am going to give each group a new assignment with a new case study.

Your assignment will be to review the public comment summary included in the final document and represent the public's point of view about the action.

DISTRIBUTE HANDOUT # 8-4 (SELECTED PUBLIC COMMENT FOR EACH CASE STUDY). PROVIDE THE PUBLIC COMMENT FOR CASE STUDY 1 TO GROUP 2, FOR CASE STUDY 2 TO GROUP 3, FOR CASE STUDY 3 TO GROUP 4 AND FOR CASE STUDY 4 TO GROUP 1. FOR EXAMPLE, IF THE GROUP REVIEWED A "TRANSPORTATION" PROJECT THEN IT SHOULD BE ASSIGNED THE "HARBOR" PROJECT TO REVIEW THE PUBLIC COMMENTS.

*Please take the next 10 minutes to individually review the public comment summary that has been assigned to your group and discuss how your group will "represent the public."
Consider the information presented by the review group when it presented their comments.
Did the document and/or the government's review fully address the public's concerns?*

DISCUSS EACH CASE STUDY INDIVIDUALLY. ASK THE PARTICIPANTS TO RAISE THE PUBLIC CONCERNS AND COMMENTS TO THE REVIEW GROUP. LIMIT THE DISCUSSION TO 10 MINUTES FOR THE DISCUSSION BY ALL GROUPS.

AFTER GROUPS HAVE HAD THE OPPORTUNITY TO REVIEW PUBLIC COMMENTS, ASK THE REVIEW GROUPS HOW THEIR REVIEW AND COMMENT LETTER MAY HAVE BEEN DIFFERENT IF THEY HAD BEEN AWARE OF THE PUBLIC COMMENTS AND CONCERNS. SOLICIT ANY ADDITIONAL FEEDBACK FROM THE REST OF THE PARTICIPANTS.

- *Would your comments have been different if you had known the public comments in advance? How would you address an issue that is receiving a lot of very vocal public concern?*

Possible responses:

- Take on a new perspective to consider the effect of the proposed project, environmental impacts, and mitigation on affected parties
- Identify a significance area of concern to the public that may become a controversial issue or a political problem
- Enable the reviewer to ensure the comments reflect an appropriate level of detail and significance to the issue
- Ensure the communication strategy is sensitive to the concerns so that accurate information may be disseminated.

REFER TO THE ADVICE TO REVIEWER'S FLIPCHART. USE THE REMAINING 10 MINUTES IN THE SESSION TO DEVELOP ADDITIONAL ADVICE TO REVIEWERS OR TO EMPHASIZE PREVIOUSLY DEVELOPED ADVICE.

Now that we have gone through the review and seen some of the influence public comments can have on the process, are there other things that you should watch for in a review of a draft environmental impact assessment? What might they be?

RECORD RESPONSES ON THE ADVICE TO REVIEWERS FLIPCHART.

- Possible responses:
- Issues presented as major concerns are not adequately addressed
 - Issues that may appear to be of lesser significance in any one component of the document could be relevant throughout the document and hence have a greater significance to the proposed project as a whole
 - Considering the perspectives of interested parties, decision makers, and others provides insight into the relative significance of issues for individuals with different perspectives.

ADD COMMENTS TO THE ADVICE TO REVIEWERS FLIPCHART FROM THE FOLLOWING DISCUSSION.

How can the reviewer promote the greatest implementation of the comments and suggestions made in the letter?

- Possible responses:
- Clear, unambiguous language
 - Strong justification and support for statements made and significance assigned
 - Maintain the "big picture" view of the document but include specific references to examples of the issues within the document
 - Fair and objective language and terms.

DISCUSS THESE IN TERMS OF WHAT REVIEWERS NEED TO WATCH OUT FOR DURING THE DEVELOPMENT OF THE COMMENT LETTER.

THINGS TO CONSIDER COULD INCLUDE:

- UNSUBSTANTIATED COMMENTS
ARGUMENTATIVE OR THREATENING LANGUAGE
- COMMENTS SWAYED BY PUBLIC COMMENT OR POLITICAL PRESSURE WITH NO RELATIONSHIP TO THE ACTUAL REVIEW FINDINGS
- UNCLEAR OR ILL DEFINED ACTION ITEMS OR TIME FRAMES.

BE SURE TO POST BOTH ROAD MAP FLIPCHARTS # 8-1 AND # 8-2 ON THE WALLS AT THE END OF THE SESSION.

SESSION 9: REVIEWING A FINAL ENVIRONMENTAL IMPACT ASSESSMENT FOR RESPONSE TO COMMENTS

MATERIALS:		TIME:	2.5 hours
Flip charts:	9-1 Road Map for Final Environmental Impact Assessment Review (1)	SETTING:	Group discussion
	9-2 Road Map for Final Environmental Impact Assessment Review (2)		Small group exercise
Handouts:	9-1 Instructions for Review of Final Environmental Impact Assessment		
Other:	Final case study environmental impact assessment documents to be distributed to case study groups		
TEXT:			
3.4.3 Involving Stakeholders and Other Interested Parties			
3.4.5 Final Environmental Impact Assessment Documents			
4. Evaluation of an Environmental Impact Assessment Document			
PURPOSE:	<ul style="list-style-type: none">● To evaluate how comments (public and government) are addressed in the final document● To review the document for significant changes● To practice review of environmental impacts on real environmental impact assessment documents.		
TIME BREAKDOWN:			
Part A	Final Environmental Impact Assessment Review Introduction	Group Discussion	15 minutes
Part B	Final Environmental Impact Assessment Review	Small Group	90 minutes
Part C	Report-Out on the Final Environmental Impact Assessment Review	Group Discussion	40 minutes
Part D	Advice to Reviewers	Group Discussion	05 minutes

PART A. Final Environmental Impact Assessment Review Introduction (Group Discussion, 15 min.)

Are there any questions about what we have covered thus far? Are we ready to proceed to review of a final environmental impact assessment document? Are you curious about how your comments may have been responded to had they been for real?

- *How might review of the final environmental impact assessment be different from the review of the draft?*

Possible responses:

- You will be familiar with the process that has been followed and the content of the document
- Expect to see certain changes in the final document, hopefully making it an improvement on the draft.

DISTRIBUTE COPIES OF THE FINAL DOCUMENTS FOR ALL CASE STUDIES TO ALL PARTICIPANTS AT THIS TIME.

We will now give you the final versions of all the draft documents you have reviewed so far. These final environmental impact assessments have changed to respond to comments received during the comment period, but the changes that have been made do not necessarily reflect all of your comments or comments by others, such as the public comments we just discussed.

In this session, we will review the document for the changes that have been made in response to comments, and tomorrow we will use the final environmental impact assessment and results of our analysis as the foundation for developing the Record of Decision and the Mitigation Plan.

POST FLIPCHARTS # 9-1 (ROAD MAP FOR FINAL ENVIRONMENTAL IMPACT ASSESSMENT REVIEW (1)) AND # 9-2 (ROAD MAP FOR FINAL ENVIRONMENTAL IMPACT ASSESSMENT REVIEW (2)). WALK THE GROUP THROUGH THE ROAD MAP, ALLOWING QUESTIONS, TO MAKE SURE ALL CONCEPTS ARE UNDERSTOOD.

Let us start by looking at what we should focus on when reviewing the final environmental impact assessment.

As before, we have a Road Map that has been developed by previous groups who have gone through this training. These are some of the ideas they have come up with.

Road Map

- *Establish a management approach*
- *Determine if basic assumptions and information are the same for draft and final documents*
- *Assess effects of any changes on alternatives, impacts and proposed mitigation*

- *Verify that comments were acknowledged and addressed*
 - *Review the relationship and consistency among responses to individual comments*
 - *Consolidate comments and prepare the final comment letter*
 - *Determine whether responses change fundamental reviewer findings:*
 - *Acceptability of environmental impact*
 - *Needed mitigation*
 - *Adequacy of environmental impact assessment document and process*
 - *Who needs to be involved and consulted*
 - *Decide actions to increase chance of correcting remaining deficiencies*
 - *Anticipate use by decision maker*
 - *Anticipate use to establish mitigation requirements*
 - *If appropriate, prepare final comment letter.*
-
- *Does anyone have anything they would like to add to this list - either a new topic or to amend something already listed?*

AMEND THE FLIPCHART AS NEEDED.

Part B Final Environmental Impact Assessment Review (Small Group Case Study Review, 90 min., includes informal break)

We are going to spend the rest of the afternoon reviewing the final documents, and we will review them to evaluate how they responded to comments and whether they included any additional information.

In conducting your review, you should stay in your small workgroups.

NOTE TO FACILITATORS: IF SOME OF THE PARTICIPANTS EXPRESS A STRONG DESIRE TO CHANGE CASE STUDIES, THIS IS A GOOD POINT TO DO IT. BE CERTAIN TO KEEP AT LEAST ONE PERSON LOOKING AT THE SAME DOCUMENT TO MAINTAIN SOME CONTINUITY. MAKE IT CLEAR THAT THEY SHOULD STAY IN THE GROUP FOR THE REMAINDER OF THE CLASS.

DISTRIBUTE HANDOUT #9-1 (INSTRUCTIONS FOR REVIEW OF FINAL ENVIRONMENTAL IMPACT ASSESSMENT)

Let me explain what I would like you to do in this exercise:

- 1) Develop a plan on how you are going to conduct the review (the documents are quite long, and no one person will have the time to review them all);*
- 2) Conduct the review, and summarize your comments. Use your experience with the draft environmental impact assessment review to develop your management plan for this review;*
- 3) Determine what has been included in the final document, how well you feel it addresses the issues you identified, and specifically, how well it addresses the comments in the official comment letter on the draft (i.e., from EPA).*

Please take a moment to glance at the official comment letter, not necessarily as a particular model for preparing comments, but perhaps to trigger some of your own ideas. Comments you made that may not be included in this letter ARE valid and you should consider whether you find that the final document resolves the issues you identified. In addition, I would like to add one other caution. Anticipate using the document for decision making tomorrow as well.

I suggest that you take about 15 minutes to get organized, then have people work on their assignments. In about 60 minutes, please get together to summarize your major conclusions on the document and outline the key comments.

- *Does anyone have any questions?*

REMIND EACH GROUP IN 60 MINUTES THEY SHOULD RECONVENE TO SUMMARIZE THEIR CONCLUSIONS. REMIND THEM AGAIN WHEN THERE IS ABOUT 10 MINUTES LEFT BEFORE THE REPORT NEEDS TO BE GIVEN.

AS WITH THE MORNING SESSION, THERE IS NO FORMAL AFTERNOON BREAK. PARTICIPANTS SHOULD BE ENCOURAGED TO TAKE A BREAK AT A CONVENIENT TIME FOR THE GROUP ACTIVITIES.

PART C. Report on Final Environmental Impact Assessment Review (Group Discussion, 40 min.)

WHEN THE GROUPS RECONVENE, HAVE EACH OF THEM REPORT ON HOW THE FINAL DOCUMENTS WERE DIFFERENT FROM THE DRAFTS.

- *How well were the official comments addressed?*
- *How were the public comments handled?*

- *Were new data and analyses included in the final draft?*
- *Did the new data fill the gaps identified in the draft review?*
- *How could the reviewer have provided comments that might have had more influence on the decision maker?*

Points to make:

- The four case studies were chosen because they have draft and final versions, and because the studies do not reflect the multitude of environmental impact assessments that were so poorly prepared that they never made it to final form
- Stress to reviewers not to get discouraged: the environmental impact assessment process provides for incremental, not dramatic, changes. --
- Also, it often does not reflect the amount of environmental damage that would have occurred had there been no environmental impact assessment process in the first place.

DURING AND AFTER DISCUSSING THESE ISSUES FOR EACH GROUP, ADD TO THE ADVICE TO REVIEWERS LIST.

Once again, we identified a number of things that should have been addressed, but were not, in the final document. Consider the quality of the final documents, the way they responded (or did not) to the draft comments, and the manner in which the issues were addressed.

- *What do you think you could have done to improve the response to your comments?*
- *What would you have liked to do if you had been in a Proactive situation? It is not unusual for a reviewer to be involved with project proponents and others during the project to develop alternatives and further analysis, and to be engaged in the process between the draft and the final environmental impact assessment.*

DISCUSS HOW REVIEWS WOULD DIFFER IN THEIR APPROACH. WOULD DIFFERENCES LIE IN THE CONCLUSIONS REACHED? IN THE LEVEL OF ANALYSIS/DOCUMENTATION POSSIBLE? IN THE TIME NEEDED FOR REVIEW? IN THE ABILITY TO INFLUENCE THE PROCESS?

Tomorrow we will begin at 8:30 to discuss development of a Record of Decision and Mitigation Plan.

- *Are there any comments or questions from today before we adjourn?*

PART D. Advice to Reviewers (Group Discussion, 5 min.)

- *Now that you have had an opportunity to review both the draft and final environmental impact assessment documents, is there any additional advice to reviewers that you would like to include on our list?*

ADD TO "ADVICE TO REVIEWERS" LIST AS APPROPRIATE, OR REEMPHASIZE POINTS ALREADY MADE.

ALLOW DISCUSSION FOR 2-3 MINUTES.

CLOSE THE SESSION FOR THE DAY.

- *Does any one have any questions about the review process we have conducted today?*

Tomorrow we will discuss the next stage of the environmental impact assessment process and your role as reviewers in the record of decision and the mitigation plan preparation.

REFER TO THE FLOWCHART.

Our next session tomorrow morning will cover preparing a Record of Decision and mitigation plan. The facilitator for this session will be [INTRODUCE THE NEXT FACILITATOR], who will lead us through the role of the reviewer in the decision-making process and post-decision monitoring and follow-up stages of the environmental impact assessment process.

SESSION 10: PREPARATION OF A RECORD OF DECISION AND MITIGATION PLAN

MATERIALS:		TIME:	2 hours and 10 minutes
Flipcharts:	10-1 Road Map for Record of Decision Preparation 10-2 Road Map for Mitigation Plan Preparation	SETTING:	Group discussion Small group exercise
Handouts:	10-1 Road Map for Record of Decision Preparation 10-2 Road Map for Mitigation Plan Preparation 10-3 Instructions for Record of Decision and Mitigation Plan 10-4 Mitigation Follow-Up Action Plan		
Other:	Case Studies Resource Manual (e.g., 1.6.3)		
TEXT:			
2.4 Decision-Making			
3.4.4 The Role of the Reviewer in Decision-making			
3.4.5 The Role of the Reviewer in Post-Decision Monitoring and Follow-up			
4.6 Mitigation and Monitoring Measures			
PURPOSE:			
<ul style="list-style-type: none"> • To learn how to prepare a Record of Decision • To learn how to prepare a Mitigation Plan • To practice preparing a Record of Decision and Mitigation Plan 			
TIME BREAKDOWN:			
Part A	Record of Decision and Mitigation Plan Introduction	Group Discussion	10 minutes
Part B	Approach to Record of Decision and Mitigation Plan Preparation	Group Discussion	10 minutes
Part C	Preparing a Record of Decision and Mitigation Plan (includes break)	Small Group Exercise	80 minutes
Part D	Record of Decision and Mitigation Plan Report	Group Discussion	30 minutes

Part A. Record of Decision and Mitigation Plan Introduction (Group Discussion, 10 min.)

In this session we will prepare a Record of Decision and Mitigation Plan. I want to make sure we all understand what they are. Let's discuss the Record of Decision.

RECORD OF DECISION

What is the reviewer's role in decision making? In some countries, environmental impact assessment reviewers have the authority to decide whether a proposed project is allowed to proceed or not. The reviewer may also have the authority to give conditional approval to a proposed project, with the reviewer setting the conditions for approval.

In other countries, the project proponent, and not the reviewer, prepares the Record of Decision. Indeed, the reviewer may not even have any authority to review or comment on the Record of Decision.

This session is focused on describing environmental impact assessment processes assuming that the reviewer, and not the decision-maker, prepares the Record of Decision. Even if you are not responsible as reviewers for preparing Records of Decision, we have included this exercise to make you more effective reviewers. Environmental impact assessment is a decision-making process, and your role is to support that process. By understanding this crucial final step in the decision-making process, your input on all of the previous steps will most likely be more constructive and useful. In other words, your goal throughout the review process should be to put the decision-maker in a position to make and document the best possible decisions. In learning about how to prepare a Record of Decision, you will learn more about how you can play this crucial supporting role.

- *What is a Record of Decision?*

The document that contains the reviewers decisions on project approval, denial, or conditional approval may have different names in different countries, but we are using the term Record of Decision to mean just that.

The Record of Decision is the final decision on the project by the responsible agency or project sponsor and may or may not be open for public comment. Within the U.S. it is possible to obtain one, although it is not required to be disseminated.

- *How does it differ from the final environmental impact assessment?*

The final environmental impact assessment presents the alternatives and the preferred alternatives for the preparer of the environmental impact assessment. This is not necessarily the same individual as the decision maker. So, a final decision may adopt a different alternative or combination of alternatives.

The point is that there may be changes to the project AFTER the final environmental impact assessment:

- *Does the reviewer as decision maker need to decide upon the environmentally preferred alternative?*

For this exercise you are free to decide what to approve in your decision. You are not limited to either the alternative preferred by the project proponent and preparer of the environmental impact assessment or the environmentally preferred alternative. I want to briefly mention the differing role played by the environmentally preferred alternative depending on country requirements. Some countries may require implementation of the environmentally preferred alternative, while most others, like the United States, require only that the environmental consequences of the action be considered during decision making, whether or not the environmentally preferred alternative is selected. Of course, there are a variety of laws in the United States and other countries that ensure that environmental damage does not occur, and these laws are actively enforced, but the environmental impact assessment process does not require implementation of the environmentally preferred alternative.

- *What should a Record of Decision contain?*

Possible responses:

- Describe the decision, clearly stating what alternative was selected and the justification for selection
- Justify the decision (why it is environmentally acceptable)
- Summarize alternatives considered
- Set conditions of approval (mitigation and continuing monitoring or other such requirements)
- Discuss concurrent regulations/laws and compliance with these
- Demonstrate that the environmental impacts of the chosen alternative were fully considered in the decision-making process
- Demonstrate that the benefits of the project outweigh the adverse impacts of the proposed project
- Demonstrate that the implementation of the proposed project will be as environmentally acceptable as possible.

- *If a reviewer is not the decision maker, can a reviewer request to comment on the Record of Decision?*

This is usually discretionary with the reviewer. The Decision maker may actually welcome positive comments on the Record of Decision as support for the proposed project, if they have been responsive to previous comments which were negative.

Comments on the Record of Decision provide closure to the project for the reviewer.

MITIGATION PLAN

Now let us define what we mean by a Mitigation Plan.

- *What is a Mitigation Plan? And why is it important?*

A Mitigation Plan is the documenting of commitments to implement mitigation measures for the approved alternative. It may or may not itself be enforceable. We discussed many aspects of developing proposed mitigation in Session 7 except that we did not choose which mitigation measure to require and we did not ensure that the actions specifically commit designated parties to mitigation and follow up monitoring to enforce conditions. Please keep that distinction in mind as we move through this session.

- *Who prepares the Mitigation Plan and who carries it out?*
In situations where the reviewing agency sets permit conditions for proposed projects, the Mitigation Plan provisions would be incorporated as permit conditions.

Like the Record of Decision, reviewers are responsible for preparing Mitigation Plans in some countries, but not in others. As with the Record of Decision, we will go through this session with the assumption that the reviewer is responsible for preparing the Mitigation Plan.

- *Does a Mitigation Plan ensure that the chosen alternative is environmentally sound?*
No, a plan attempts to ensure harms are minimized.

GO OVER HIERARCHY OF MITIGATION MEASURES (AVOID, MINIMIZE, REDUCE, CORRECT, COMPENSATE)

- *What should a Mitigation Plan include?*

Possible Responses:

- Fall back options in case part of the plan is not working
- Criteria for success
- Assurance of financial commitment
- Timetable for completing mitigation steps (in construction, operation, and closure)
- Designation of who will enforce the plan and a statement of the legal/regulatory authority to enforce it
- Consideration of the consequences of the mitigation measures (e.g., where the scrubber waste will go)
- Reflection on the significance of the adverse environmental impacts
- An implementation schedule, which should identify the committed and financially/legally responsible parties.

- *Should other agencies or the public be involved in the Mitigation Plan?*

Public acceptance of the plan should be considered. Other agencies involved should be consulted and in some cases drawn in to build on their authorities. A proactive reviewer makes every effort to do this.

- *Should all possible environmental impacts include mitigation measures?*

Usually a mitigation plan addresses at least the most significant environmental impacts and mitigation measures that are relatively easy and straightforward to accomplish. There may even be a fair amount of negotiation with the project sponsor and other involved agencies and the public, not in an open ended way but in a systematic and principled way, in order to ensure that the mitigation will indeed be realistic and implemented and has the sponsor's full commitment.

- *How can the reviewer assure that the Mitigation Plan is carried out?*

There may be many different ways a reviewer can better assure that the mitigation plan will be carried out. Specific measures that are most important should have some enforceability assurance and follow up monitoring. You can even sometimes insist that the plan be part of the contract with construction/operation contractors, or include a schedule for when inspection will take place and specify consequences if commitments are not met.

- *Does anyone have any questions about the definitions for Mitigation Plan or Record of Decision?*

CLARIFY ANY CONFUSION THAT MAY EXIST.

Part B. Approach to Record of Decision and Mitigation Plan Preparation (Group Discussion, 10 min.)

Let's look at the road maps for Record of Decision and Mitigation Plan preparation as a summary of many of the ideas you have raised.

REVEAL FLIPCHARTS # 10-1 "ROAD MAP FOR RECORD OF DECISION" AND #10-2 "ROAD MAP FOR MITIGATION PLAN PREPARATION." WALK THROUGH THE FLIPCHARTS, MAKING SURE ALL UNDERSTAND THE CONCEPTS. AMEND THE FLIPCHARTS AS NEEDED TO CAPTURE THE IDEAS DISCUSSED BY THE GROUP.

Road Map for Record of Decision Preparation

- *Re-state the purpose and need*
- *Support preferred alternative and justify that it meets purpose and need*
 - *Either preferred environmentally or meets purpose and need better than other alternatives*
 - *Meets legal requirements*
- *Demonstrate all potentially adverse environmental impacts from the selected alternative were fully considered*
- *Demonstrate that benefits of proposed project outweigh adverse impacts*
- *Demonstrate that implementation of the proposed project will be environmentally acceptable*
- *Mitigation and continuing responsibilities*

Road Map for Mitigation Plan Preparation

- *Proposes specific mitigation measures for:*
 - *All (significant) adverse environmental impacts*
 - *All primary, secondary, cumulative adverse environmental impacts*

- All phases of the project
- All relevant environment types (natural and human)
- Where appropriate, proposes mitigation measures most desirable in hierarchy
- Provides sufficient detail relative to the significance of each environmental impact
- Includes technically and financially feasible measures
 - Financial/other resources
 - Socially and culturally acceptable
- Includes implementation plans, schedules and interim milestones, and timing consistent with other factors
- Identifies responsible parties committed to implement.

Part C. Preparing a Record of Decision and Mitigation Plan (Small Group Exercise, 60 min.)

DISTRIBUTE HANDOUT #10-3.

Now you are going to convene your small groups to prepare two documents. During the first half-hour, you will prepare a Record of Decision for the case study environmental impact assessment you have been reviewing. The handout provides the key assumptions you are making. The Record of Decision should be no longer than two pages.

For the second half-hour, you will write a Mitigation Plan for the alternative you selected in your Record of Decision.

DISTRIBUTE HANDOUT #10-4

I am distributing a format for you to use to record the mitigation plan conditions.

Unlike previous exercises with the case study documents, in this exercise YOU are the decision maker. As we discussed earlier, in your actual responsibilities you may or may not have this role. However, even if you do not have this role, it is very important to be able to put your self in the position of the decision maker. Try to imagine the information they would need to make a sound decision, and determine what needs to be accomplished to effectively communicate the decision.

For the Record of Decision, you should identify the alternative that will be implemented, and write a justification of why you selected that alternative. For the Mitigation Plan, you

should select appropriate mitigation measures for the alternative you have chosen to implement. You will be doing these two things as a group. When your group reports its conclusions, you will be asked to clearly identify the alternative you selected, and why, as well as the specific mitigation that you recommend to be implemented. Please keep both of the Road Maps we just discussed in mind when conducting your reviews and preparing your reports.

It is now _____ (STATE THE CURRENT TIME). You will have until _____ (30 MINUTES FROM NOW) to prepare your group Record of Decision. Then you will have from _____ (30 MINUTES FROM NOW) until _____ (ONE HOUR FROM NOW) to write your Mitigation Plan. There is no formal break scheduled for this morning. You may take a few minutes at your group's convenience during this part of the session.

- *Does anyone have any questions? The facilitators will be available throughout this exercise to answer any questions you may have.*

WHEN THERE ARE ABOUT 10 MINUTES LEFT IN THE RECORD OF DECISION AND MITIGATION PLAN PARTS OF THE EXERCISE (AT 20 AND 50 MINUTES FROM NOW, RESPECTIVELY), REMIND GROUPS TO PREPARE THEIR PRESENTATIONS ON THOSE TOPICS.

Part D. Record of Decision and Mitigation Plan Report (Group Discussion, 30 min.)

WHEN GROUPS RETURN, HAVE EACH GROUP REPORT FOR TWO MINUTES ON ITS RECORD OF DECISION AND FOR TWO MINUTES ON THE MITIGATION PLAN THE GROUP DEVELOPED TO SUPPORT IT. THEN, AFTER ALL PRESENTATIONS HAVE BEEN COMPLETED, LEAD A DISCUSSION FOR UP TO FIVE MINUTES TOTAL ON WHETHER THE GROUP DECISIONS WERE THE SAME AS THE DECISIONS ACTUALLY TAKEN IN THE CASE STUDY ENVIRONMENTAL IMPACT ASSESSMENTS, AND IF THEY DIFFERED, HOW THEY DIFFERED AND WHY.

ADD TO THE "ADVICE TO REVIEWERS" AS APPROPRIATE DURING THE DISCUSSION.

- *Does anyone have any other advice to reviewers that we have not already captured?*

RECORD RESPONSES ON THE BLANK FLIPCHART.

- *After having reviewed all the sections of the draft and final environmental impact assessments, do you feel you were able to effectively prepare the Record of Decision and Mitigation Plan? Would your approach to writing these documents have been different if you had been [name for Proactive]? If you were [name for Empowered]? Is there a need for a team prepare either of these documents? What would have you done differently if you had been [name for Lead]?*

FACILITATE A DISCUSSION ON THESE QUESTIONS FOR A FEW MINUTES. REFER TO THE ENVIRONMENTAL IMPACT ASSESSMENT FLOWCHART. SHOW YOU HAVE COMPLETED THE FULL PROCESS.

We have now finished with the review of our case study environmental impact assessment documents and we have completed the entire environmental impact assessment process from project initiation to decision, implementation and monitoring. Some additional reference material is available for your use in the Resource Manual: Section 1.7.1 - Negotiating a Monitoring Program and Section 3.2 - Project Specific Mitigation Measures World Bank Tables.

Are you more the empowered reviewer than just solo? Just to make sure, in our next session will present some information on resources available to help you conduct reviews. This afternoon, we will talk about environmental impact assessment review in [name of this country].

Before we take a break, let's review some of the key concepts we discussed during the course.

OPTIONAL: LEAD THE PARTICIPANTS IN A DISCUSSION HIGHLIGHTING THE KEY CONCEPTS FROM THE BEGINNING OF THE COURSE, SUCH AS:

- THE INSERTION OF THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS IN WHAT WOULD OTHERWISE BE DIRECT IMPLEMENTATION OF PROJECT IDEAS. AND SPECIFICALLY WHERE DRAFT AND FINAL DOCUMENT DEVELOPMENT ARE CONDUCTED AND WHERE PUBLIC PARTICIPATION IS THE GREATEST
- THE VARIETY OF CONTEXTS AND SITUATIONS A REVIEWER MAY BE IN, WHAT INFLUENCES THOSE SITUATIONS, AND HOW THE REVIEWS MAY DIFFER
- THE CONTEXT OF THE REVIEW: LEGAL, INSTITUTIONAL, ORGANIZATIONAL, AND PERSONAL AND WHAT AFFECT IT HAS ON THE REVIEW PROCESS
- THE FOCUS OF A REVIEWER NO MATTER WHAT THE CONTEXT: COMPLETENESS, SIGNIFICANCE, ADEQUACY, INTEGRITY, ACCURACY, AND INFLUENCE
- THE REVIEW PROCESS ITSELF AND THE FUNDAMENTAL ROAD MAP TO ASSIST ANY REVIEWER, WITH ANY BACKGROUND, IN ANY SITUATION THROUGH A THOUGHTFUL AND SYSTEMATIC REVIEW OF AN ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT.
- THE TOOLS AND TECHNIQUES AVAILABLE TO A REVIEWER -- WHICH WE WILL EXPAND UPON IN THE NEXT SESSION.

AT THE END OF THE SESSION, ASK THE PARTICIPANTS TO RETURN THE DRAFT ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENTS FOR USE IN FUTURE COURSES. INFORM THEM THAT THEY MAY KEEP THE FINAL ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENTS FOR THEIR OWN LIBRARIES.

SESSION 11: RESOURCES FOR A REVIEWER

MATERIALS:	TIME: 1 hour 35 minutes		
Flip Charts: 11-1 Resources for a Reviewer	SETTING: Large Group		
Handouts: None			
Other:	Environmental Assessment Case Study and the Environmental Assessment Resource Guide on Compact Disc		
	Resources for a Reviewer Video Demonstrating Use of the Case Study and Resource Guide		
TEXT:	Not Applicable		
PURPOSE:	<ul style="list-style-type: none">● To familiarize participants with software developed to guide users through the process of preparing environmental impact assessment documents● To introduce participants to materials in the course Resource Manual that have not been covered in the course		
TIME BREAKDOWN:			
Part A	Review of the Student Text	Group Discussion	2 minutes
Part B	Review of Principles of Environmental Impact Assessment Review Resource Manual	Group Discussion	3 minutes
Part C	Review of the Compact Disc Programs and Use	Group Discussion	5 minutes
Part D	Demonstration of the Compact Disc Programs	Group Discussion	60 minutes
Part E	Discussion of the Compact Disc Programs and Other Resources	Group Discussion	25 minutes

REVEAL FLIPCHART #11-1 (RESOURCES FOR THE REVIEWER)

Up to this point, you've only had a limited opportunity to work with and become familiar with the course materials at hand.

HOLD UP: STUDENT TEXTS, RESOURCE MANUAL AND COMPACT DISC.

This session will provide an overview of these materials. We refer to these materials as "resources." Together, they'll form the basis of a "Resource Library" of materials available to assist you in conducting environmental impact assessment reviews. We will review the specific contents of each of these resources. They are designed for easy use.

Their contents are organized to compliment one another. By the end of this session, you should no longer feel intimidated by these documents.

Part A Review of the Student Text (Group Discussion 2 minutes)

Let's begin with a close look at the first resource, the Student Text for the "Principles of Environmental Impact Assessment Review" course. The Student Text is intended to serve as both a stand-alone document and as a supplement to the course. You have already referred to the Student Text for "Principles of Environmental Impact Assessment Review" in previous sessions. I will now give an overview of the chapters in the "Principles of Environmental Impact Assessment Review" Student Text. I will also identify the specific sections of the "Principles of the Environmental Impact Assessment" Student Text and the Resource Manual for "Principles of Environmental Impact Assessment Review" that are associated with each Chapter of the Student Text for this course.

Chapter 1 provides an introduction to the content of the Student Text, its purpose and how it is to be used.

Chapter 2 gives an overview of the environmental impact assessment process. It defines the environmental impact assessment process, explains the role of public participation and when to include it in the process, preparation of draft and final environmental impact assessments and post-decision monitoring and follow-up assurances. (COMPLIMENT: PRINCIPLES OF ENVIRONMENTAL IMPACT ASSESSMENT STUDENT TEXT. THIS IS THE MAIN REFERENCE FOR MORE DETAIL ON THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS; IN ADDITION, THE RESOURCE MANUAL FOR THE PRINCIPLES OF ENVIRONMENTAL IMPACT ASSESSMENT REVIEW, SECTION 1)

Chapter 3 explores the role of the reviewer with respect to each component of the environmental impact assessment process. This includes the types of review situations, approaches for a successful review, communicating the findings of the review and overcoming obstacles to successful environmental impact assessment review.

Chapter 4 takes you through each step of reviewing an environmental impact assessment from analyzing each element of the environmental impact assessment through mitigation and monitoring measures. A more detailed list of the kinds of information useful in an environmental impact assessment review can be found here. Also included are in-depth discussions of primary, secondary and cumulative impacts as well as numerous assessment tools and techniques for environmental impact assessment review (e.g., economic tools, checklists, matrices, weighing techniques, GIS, transport models, and road map guides)

(COMPLIMENT: RESOURCE MANUAL FOR THE PRINCIPLES OF ENVIRONMENTAL IMPACT ASSESSMENT REVIEW, SECTION 2)

The Appendices contain methodologies, checklists, definitions, and guides for assessing the adequacy of the information in an environmental impact assessment used to describe the environmental setting and assess the environmental impacts. Appendix A: Environmental Impact Assessment Evaluation Checklist; Appendix B: Environmental Impact Assessment Methodologies; Appendix C: Impact Term Definitions, Identifying Significant Issues - Examples Appendix D: Contents of Specific Environmental Impact Assessment Tools; and Appendix E: Road Maps and Tools and Techniques (COMPLIMENT: RESOURCE MANUAL FOR THE PRINCIPLES OF ENVIRONMENTAL IMPACT ASSESSMENT REVIEW, SECTION 2 AND SECTION 6)

Part B. Review of Principles of Environmental Impact Assessment Review Resource Manual (Group Discussion 3 minutes)

Now, lets take a look at a second resource, the Resource Manual: "Resource Manual for the Principles of Environmental Impact Assessment Review." The manual's genesis was a precursor document entitled "Sourcebook for the Environmental Assessment (EA) Process," September 1993. The "Sourcebook" was an effort to provide, for the first time, a one-stop reference to meet the demand for information on the environmental assessment process. It was used as an adjunct to the "Principles of Environmental Impact Assessment" training course. However, time, experience gained from delivery of the Principles Environmental Impact Assessment course and the development of the "Principles of Environmental Impact Assessment Review" course led to the evolution of the "Sourcebook" into the "Resource Manual for the Principles of Environmental Impact Assessment Review".

You used a portion of the Resource Manual (Section 1) in a previous session. You may recall this section describes the major activities that fashion a comprehensive environmental impact assessment such as project initiation, scoping, assessment, decision-making, and post-decision analysis. (COMPLIMENT: PRINCIPLES ENVIRONMENTAL IMPACT ASSESSMENT REVIEW - STUDENT TEXT, CHAPTER 2)

I will now give an overview of the other six sections of the manual that can assist you in finding information we may not have covered during the course. I will also identify specific sections of the Student Text that are associated with the Resource Manual.

Section 2 contains the same matrix of environmental impact assessment methodologies useful for understanding the different methods that may be used in an environmental impact assessment review that is in the Principles of Environmental Impact Assessment Review Student Text. The matrix displays various tools and techniques that can be used to obtain

information that you would need to successfully complete a review (transport models, checklists, overlay mapping, matrices, and scaling techniques). This section also contains an example checklist for environmental impact assessment review. (COMPLIMENT: PRINCIPLES ENVIRONMENTAL IMPACT ASSESSMENT REVIEW - STUDENT TEXT, APPENDIX A AND APPENDIX B)

Section 3 contains a list of specific characteristics from various types of industrial discharges and a World Bank Table of project specific mitigation measures. (COMPLIMENT: PRINCIPLES OF ENVIRONMENTAL IMPACT ASSESSMENT REVIEW - STUDENT TEXT, APPENDIX C-1)

Section 4 contains an assemblage of U.S. environmental impact assessment laws and regulations. It also serves as a place-holder for incorporation of country-specific laws and other relevant information. This section is designed to change with each delivery of the course to reflect the laws of the host country.

Section 5 includes: 1) a list of relevant environmental impact assessment guidance developed by the U.S. Environmental Protection Agency; and 2) example guidance on the evaluation of ecological impacts from a highway development project and environmental impacts from mining operations. Host countries may provide additional guidance that is appropriate to their environmental impact assessment process.

Section 6 contains: 1) a glossary of terms; 2) a list of non-governmental associations and affiliations that can provide useful information; and 3) Internet sites (COMPLIMENT: PRINCIPLES OF ENVIRONMENTAL ASSESSMENT REVIEW - STUDENT TEXT, APPENDIX C-1)

Section 7 describes the compact disc programs that were briefly mentioned during this session.

Part C Review of the Compact Disc programs and Use (Group Discussion 5 minutes)

HOLD UP COMPACT DISC ENTITLED "ENVIRONMENTAL ASSESSMENT CASE STUDY."

This compact disc is a third resource. It contains two programs that describe and reinforce principles of environmental impact assessment. Both programs were developed by U.S. EPA Region 5 with Purdue University in cooperation with the USEPA Office of Federal Activities (OFA). Upon request, additional copies of the program can be provided free of charge to government officials and non-governmental organizations.

The first program is a color tutorial on the preparation of Environmental impact assessments titled "Environmental Assessment Resource Guide." This compact disc-based version of the resource manual is based on the U.S. EPA Sourcebook, the World Bank Environmental Impact Assessment Sourcebook, and EPA's student text on Principles of Environmental Impact Assessment. The program gives a breakdown of the needs, tools, issues, linkages and references for each major section of an environmental impact assessment. The program contains a complete glossary, utilities such as a list of government agency acronyms, and checklists to help you determine the kinds of information needed for each component of the environmental impact assessment.

The second program is an "interactive" program that will lead you through the steps to complete an Environmental impact assessment. This program is particularly useful if you are involved in project planning and management aspects of an Environmental impact assessment. This program is based on an actual project, the Diamond Chuitna Coal Project in Alaska, reviewed by U.S. EPA Region 10, in the 1980's. The materials are dedicated to mining issues but the principles of environmental impact assessment demonstrated by the program are applicable to the review of other types of proposed projects.

The compact disc enables you to review the project and look at the affected geographic area through interactive maps and three-dimensional simulated fly-overs. It provides a perspective not attainable in a written document. Also included are video clips of mock reports about the mining project. A series of interactive questions is utilized to guide you through the environmental impact assessment decision process. At various points throughout the program, you will be given the opportunity to test your knowledge of this particular mining case study with a short quiz. Instantaneous feedback is provided by a list of the possible responses to the questions, in addition to a description of the actual events that occurred during the Diamond Chuitna Coal Project.

Perhaps the most important aspect of the interactive program is the built-in notebook feature. By saving the notebook, you are able to store your ideas and answers to questions for future reference. The notebook may also be used as a generic tool kit for preparing environmental impact assessments and a guide when reviewing the different sections of an environmental impact assessment document.

Part D Demonstration of the Compact Disc programs (Group Discussion, 60 minutes)

AT THIS POINT, YOU WILL HAVE TWO OPTIONS. OPTION 1: SHOW THE PARTICIPANTS A VIDEOTAPE DEMONSTRATION OF THE COMPACT DISC GIVEN BY ALFRED KRAUSE OF USEPA REGION 5 OR OPTION 2: DEMONSTRATE THE COMPACT DISC YOURSELF.

OPTION 1: Introduction of the Videotape Compact Disc Demonstration (Group Activity 60 minutes)

THE PARTICIPANTS WILL BE ABLE TO FOLLOW ON AN OVERHEAD PROJECTION SCREEN AS MR. KRAUSE NAVIGATES THROUGH THE PROGRAM.

THE TELEVISION AND VIDEO CASSETTE RECORDER SHOULD BE SET UP BEFORE THE PARTICIPANTS RETURN FROM THEIR BREAK. COMPLETE A QUICK POWER CHECK BEFORE YOU BEGIN. MAKE SURE THAT YOU ARE ABLE TO LOCATE THE CONTROLS READILY.

In a few moments, we will watch a video that demonstrates how to install and use the compact Disc programs. The speaker in the video is Mr. Alfred Krause of USEPA Region 5. He prepared the demonstration so that the viewer may follow along on an overhead projection screen as he works through the program from his computer. The video provides you with the basic instructions needed to navigate through the programs.

While watching the video, feel free to jot down questions and comments about the use of the software that you would like to have clarified. We will have about 10 minutes at the end of the video to discuss the programs.

IF NECESSARY, HAVE ANOTHER FACILITATOR ADJUST THE LIGHTS, THEN START THE VIDEO. ASK THE PARTICIPANTS IF THEY ARE ABLE TO SEE AND HEAR THE VIDEO CLEARLY. MAKE ANY NECESSARY ADJUSTMENTS.

AT THE END OF THE VIDEO PRESENTATION, PREPARE TO TAKE QUESTIONS ABOUT THE VIDEO PRESENTATION.

OPTION 2: Demonstration of the Compact Disc-based Programs (Group Activity 60 minutes)

YOU SHOULD REVIEW THE VIDEOTAPE DEMONSTRATION AND THE CONTENTS OF THE COMPACT DISC PRIOR TO PRESENTING THIS OPTION. MAKE A NOTE OF THE COMPUTER SYSTEM REQUIREMENTS FOR USING THE COMPACT DISC BEFORE YOU SELECT THE COMPUTER SYSTEM(S) THAT WILL BE USED DURING THE SESSION. BOTH PROGRAMS ON THE COMPACT DISC ("ENVIRONMENTAL ASSESSMENT RESOURCE GUIDE" AND "DIAMOND CHIUTNA CASE STUDY") ARE ACCOMPANIED BY TEXT FILES NAMED "READ ME". THESE FILES PROVIDE SPECIFIC INFORMATION ABOUT SYSTEM REQUIREMENTS AND INSTALLATION INSTRUCTIONS. DURING YOUR PRESENTATION, REMEMBER TO CALL THESE FILES TO THE PARTICIPANT'S ATTENTION.

I would like to take the next thirty minutes to show you how to use these programs. We will not have time to go through the contents of both programs in detail, but by the end of this

presentation, you will have an idea of the kind of information that you'll find when you use the programs on your own. Keep in mind, the Resource Manual for the Principles of Environmental Impact Assessment Review and compact disc-based programs compliment one another. You may be able to find information in the Resource Manual that the software developers could not present on one compact disc.

Part E Discussion of the Compact Disc Programs and Other Resources (Group Discussion 25 minutes)

- *Before we begin discussing the specific details of the programs, I would like to find out how many of you believe that this program would be a tool that would benefit you as a reviewer of Environmental impact assessments? Why?*

Possible Responses: Shows a systematic approach to an environmental impact assessment review

- Offers suggestions/ideas for conducting an environmental impact assessment review

- *How might this program benefit the reviewer?*

Possible responses:

- Saves time in review
- Displays relevant information in one place
- Easy to access information

- *Does anyone feel that this may not be an adequate tool for a person in the role of reviewer? Why?*

Possible responses:

- Irrelevant if equipment not available to use
- Time constraints may inhibit use

Some final thoughts. The case studies you have been working with can also be a resource. Recall how you applied "Sources of Environmental Data" in Section 1 of the Resource Manual during the group exercise in Session 5; Review of the Description of the Environmental Setting. Section 1 was formatted to enable you to record a list of information sources of environmental data that are unique to your needs.

Keep in mind also that fellow course participants, co-workers, colleagues and even management can be important resources for you. At different times, you may need individuals you can work closely with during the entire review of the document or you may only need the technical expertise of another for a specific part of the environmental impact

assessment review. That is why it is important to develop a network of contacts whom you can ask for help, officially and unofficially, during your review.

This course allows you to meet others with various expertise and experience in environmental impact assessment reviews.

It is now [INDICATE THE TIME]. We will break for a one hour lunch. After lunch, we will discuss and elaborate further on Chapter Four of the Resource Manual, "Country Specific Laws/Background."

SESSION 12: COUNTRY-SPECIFIC APPLICATIONS

MATERIALS:	TIME: 3 hours
Flip charts: 12-1 Country-Specific Contexts	SETTING: Group discussion
Handouts: To be determined by facilitator	
Other: To be determined by facilitator	
TEXT: Not applicable	
PURPOSE: • To describe the legal, institutional, organizational, and personal contexts for review in the host country.	
TIME BREAKDOWN:	
Part A Country-specific Context (includes break)	Group Discussion 3 hours

PART A Country-specific Context (Group Discussion, 3 hours with a 30-minute break at the facilitator's discretion)

NOTE TO FACILITATOR: WE ADVISE THAT A LOCAL OFFICIAL MAKE A PRESENTATION. SIGNIFICANT PARTICIPANT INVOLVEMENT MAY NOT OCCUR UNTIL ONE AND A HALF HOURS INTO THE DISCUSSION, WHEN YOU DISCUSS THE ORGANIZATIONAL AND PERSONAL CONTEXTS FOR REVIEW. DURING WHICH, AT THE REQUEST OF COUNTRY OFFICIALS, YOU MAY BE ASKED TO SERVE A FACILITATING ROLE...OR RECORDER ROLE. PRIOR TO DELIVERY OF THIS SESSION, YOU SHOULD PREPARE FOR THE FIRST TWO PARTS OF THIS SESSION, BASED ON THE INSTRUCTIONS AND INFORMATION PRESENTED BELOW. BE AWARE OF THE TIME LIMITS ASSIGNED FOR EACH PART OF THE SESSION. TIME LIMITS RECOMMENDED FOR EACH PART OF THIS SESSION ARE AS FOLLOWS:

- LEGAL CONTEXT: 1 HOUR
- INSTITUTIONAL CONTEXT: 30 MINUTES
- ORGANIZATIONAL CONTEXT: 30 MINUTES
- PERSONAL CONTEXT: 30 MINUTES.

WHEN PRESENTING COUNTRY-SPECIFIC CONTEXTUAL INFORMATION, IT IS OFTEN TEMPTING TO FOCUS EXCLUSIVELY ON THE LEGAL CONTEXT (E.G., LAWS, REGULATIONS, SPECIFIC AUTHORITIES). TO ENSURE EFFECTIVE FACILITATION OF THE FULL CONTEXT OF PRINCIPLES THIS COURSE IS STRUCTURED UPON, YOU ARE ADVISED TO PROVIDE ADEQUATE DISCUSSION ON

THE IMPORTANT INSTITUTIONAL, ORGANIZATIONAL, AND PERSONAL CONTEXTS OF REVIEW IN THE HOST COUNTRY.

IF DESIRED, YOU MAY PREPARE FLIP CHARTS AND HAND OUTS CONTAINING OUTLINES OF THE INFORMATION YOU WILL PRESENT AND REVEAL/DISTRIBUTE THEM DURING THE SESSION.

We have spent almost four days now learning about how to be an effective reviewer of an environmental impact assessment. During that time, the principles we have learned have, for the most part, been principles that would apply equally in any country. In this session, we are going to talk about the various contexts for review in this country. As in Session 2, we will discuss the legal, institutional, organizational, and personal contexts that reviewers must incorporate into the environmental impact assessment review process in (NAME OF HOST COUNTRY). Let's also refer back to the context information you identified as being important when we defined the context for review on the first day.

REVEAL FLIP CHART # 12-1 (COUNTRY-SPECIFIC CONTEXTS)

Legal Context

Let us first discuss the legal context that reviewers of environmental impact assessments must understand in this country.

DISCUSS THE LEGAL CONTEXT IN THE HOST COUNTRY FOR ONE HOUR. DURING THAT TIME, YOU SHOULD ORGANIZE YOUR DISCUSSION TO ACHIEVE THE FOLLOWING:

- ACQUAINT THE PARTICIPANTS WITH THE LOCATION AND CONTENTS OF COUNTRY-SPECIFIC DOCUMENTS THAT HAVE BEEN ADDED TO THE RESOURCE MANUAL THAT ARE RELATED TO THE LEGAL CONTEXT IN THE HOST COUNTRY. FOCUS ON EXPLAINING HOW TO USE THOSE DOCUMENTS, RATHER THAN REITERATING THEIR FULL CONTENTS.
- DISCUSS THE FOLLOWING TYPES OF CONTEXTUAL INFORMATION. AGAIN, PROVIDE AN OVERVIEW AND GUIDANCE ON WHERE TO FIND FURTHER INFORMATION RATHER THAN ATTEMPT TO FULLY FAMILIARIZE PARTICIPANTS WITH ALL APPLICABLE LAWS AND REGULATIONS:
 - LAWS AND REGULATIONS APPLICABLE TO THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS
 - WHEN ENVIRONMENTAL IMPACT ASSESSMENTS NEED TO BE PREPARED
 - WHO NEEDS TO PREPARE THEM

- WHAT NEEDS TO BE INCLUDED IN AN ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT (WHAT IS LEGALLY REQUIRED, WHAT IS TRADITIONALLY INCLUDED)?
 - WHETHER PUBLIC PARTICIPATION IS REQUIRED OR OPTIONAL
 - WHAT IS THE REQUIRED PROCESS FOR ENVIRONMENTAL IMPACT ASSESSMENT DEVELOPMENT
 - WHETHER THERE ARE REQUIREMENTS FOR IDENTIFYING ALTERNATIVES
 - THE LEGAL STATUS OF THE "PREFERRED" OR "ENVIRONMENTALLY PREFERRED" ALTERNATIVE
 - LEGAL ABILITY TO IMPOSE MITIGATION AND WHO HAS THIS AUTHORITY
 - WHO HAS RESPONSIBILITY TO MAKE DECISIONS
 - WHETHER THE DECISION MUST BE LINKED TO THE ENVIRONMENTAL IMPACT ASSESSMENT
- PAUSE AT LEAST ONCE EVERY TEN MINUTES TO ASK IF THERE ARE ANY QUESTIONS OR COMMENTS.

NOTE: THERE SHOULD BE A 15 MINUTE BREAK AT THE END OF THIS PART OF THE SESSION, BEFORE DISCUSSING THE INSTITUTIONAL CONTEXT.

Institutional Context

Welcome back from the break. We spent an hour discussing the legal context of environmental impact assessment review in this country. During the rest of this session, we will discuss three other review contexts: institutional, organizational, and personal. We will devote less time to each of these discussions, approximately half an hour each, than we did for the legal context discussion.

DISCUSS THE INSTITUTIONAL CONTEXT IN THE HOST COUNTRY FOR HALF AN HOUR. DURING THAT TIME, YOU SHOULD ORGANIZE YOUR DISCUSSION TO ACHIEVE THE FOLLOWING:

- ACQUAINT THE PARTICIPANTS WITH THE LOCATION AND CONTENTS OF COUNTRY-SPECIFIC DOCUMENTS IN THE RESOURCE MANUAL (IF ANY) THAT ARE RELATED TO THE INSTITUTIONAL CONTEXT IN THE HOST COUNTRY. FOCUS ON EXPLAINING HOW TO USE THOSE DOCUMENTS, RATHER THAN REITERATING THEIR FULL CONTENTS.

- DISCUSS THE FOLLOWING TYPES OF CONTEXTUAL INFORMATION, AS WELL AS ANY OTHER INFORMATION YOU DEEM APPROPRIATE:
 - WHAT INSTITUTIONS ARE INVOLVED, EITHER DIRECTLY OR INDIRECTLY, IN ENVIRONMENTAL IMPACT ASSESSMENT PREPARATION AND/OR REVIEW?
 - WHAT AUTHORITIES DO THESE INSTITUTIONS HAVE?
 - WHAT KIND OF EXPERTISE EXISTS WITHIN AND OUTSIDE OF GOVERNMENT?
 - WHAT ARE THE CHARACTERISTICS OF TYPICAL PROJECT PROPONENTS' INSTITUTIONS?
 - WHAT ARE THE CHARACTERISTICS OF TYPICAL DECISION-MAKERS' INSTITUTIONS?
 - MUST A PARTICULAR AGENCY APPROVE ENVIRONMENTAL IMPACT ASSESSMENTS?
 - WHICH INSTITUTIONS ARE TYPICALLY AFFECTED BY THE OUTCOMES OF ENVIRONMENTAL IMPACT ASSESSMENTS?
 - WHAT MECHANISMS EXIST FOR CONFLICT RESOLUTION AMONG GOVERNMENT AGENCIES, BETWEEN GOVERNMENT AND THE PRIVATE SECTOR, AND WITH THE PUBLIC
- PAUSE AT LEAST ONCE EVERY TEN MINUTES TO ASK IF THERE ARE ANY QUESTIONS OR COMMENTS.

Organizational Context

Now I would like to discuss the organizational context for environmental impact assessment review in this country. During this and the next part of this session, I will be speaking a lot less and asking you for your input a lot more. The organizational context is similar to the institutional context, except that here we are focusing on specific characteristics of the individual organizations that you work in. As we go through this discussion for the next thirty minutes, I will be asking some of you to describe the specific organizational contexts you work in.

DISCUSS THE ORGANIZATIONAL CONTEXT AT VARIOUS PARTICIPANT ORGANIZATIONS FOR HALF AN HOUR. DURING THAT TIME, YOU SHOULD ORGANIZE YOUR DISCUSSION TO ACHIEVE THE FOLLOWING:

- PROMPT PARTICIPANTS TO DISCUSS THE FOLLOWING TYPES OF CONTEXTUAL INFORMATION:
 - THE ROLE THE REVIEWER'S ORGANIZATION HAS IN ENVIRONMENTAL IMPACT ASSESSMENT DEVELOPMENT
 - THE LIMITS TO THE REVIEWING ORGANIZATION'S AUTHORITY
 - THE LINES OF AUTHORITY WITHIN THE REVIEWER'S ORGANIZATION
 - THE EXPECTATIONS OF SUPERVISORS OF REVIEWERS.
 - HOW ARE RESOURCES BUDGETED
 - HOW FORMAL ARE RELATIONSHIPS WITH ASSOCIATE REVIEWERS AND HOW IS ASSISTANCE AND TECHNICAL EXPERTISE OBTAINED

PERSONAL CONTEXT

Now we are going to take our discussion of contexts down to the smallest unit in the environmental impact assessment process: you, the reviewer. We are going to discuss your personal context for review. We will only be discussing the personal context for thirty minutes, so it will not be possible to discuss everyone's personal context. I will randomly select participants to ask questions of until we run out of time.

FACILITATE A DISCUSSION ON THE PERSONAL CONTEXT FOR ENVIRONMENTAL IMPACT ASSESSMENT REVIEW. STRUCTURE THE DISCUSSION TO ELICIT INFORMATION ON THESE AND OTHER KEY POINTS:

- WHAT ARE YOUR PERSONAL STRENGTHS AND WEAKNESSES AS A REVIEWER?
- WHAT RESOURCES ARE AVAILABLE TO YOU IN YOUR ORGANIZATION?
- WHAT RESOURCES MIGHT BE AVAILABLE TO YOU THROUGH OTHER ORGANIZATIONS?
- WHAT RESOURCES DO YOU NEED THAT YOU FEEL ARE NOT AVAILABLE TO YOU?
- WHAT KIND OF DEADLINES DO YOU TYPICALLY HAVE FOR COMPLETION OF REVIEWS?
- WHO CAN YOU CONTACT FOR ASSISTANCE OR INFORMATION?

Great, I think this was a very useful discussion. I hope you feel better acquainted with the various contexts for review that are applicable to your situations. I know I learned a lot about your organizational and personal contexts as they apply to the review of environmental impact assessments.

[NAME OF NEXT FACILITATOR] will lead us through our next session, the course evaluation and wrap up of Day 4. The course evaluation will allow you an opportunity to give us feedback on the course and its presentation. During the wrap up, we can go over any remaining questions that you may have.

ANNOUNCE THE STARTING TIME FOR THE FINAL WRAP UP AND COURSE EVALUATION SESSION AND ANY OTHER NECESSARY LOGISTICAL ARRANGEMENTS OR COMMENTS.

FINAL WRAP UP AND COURSE EVALUATION

MATERIALS:		TIME:	30 minutes
Flip charts:	None	SETTING:	Facilitator presentation Individual exercise
Handouts:	1-3 Evaluation Form (extra copies if needed)		
Other:	Certificate of Completion		
TEXT:	Not applicable.		
PURPOSE:	<ul style="list-style-type: none"> • To provide the opportunity for participants to evaluate the course • To wrap-up the Day 4 discussion 		
TIME BREAKDOWN:			
Part A	Day 4 Wrap-up	Facilitator Presentation	10 minutes
Part B	Course Evaluation	Individual Exercise	20 minutes

PART A Day 4 Wrap-up (Facilitator Presentation, 10 min.)

We have now come to the final session in the course. The primary reason for this session is to give you an opportunity to tell us how we did as facilitators, and to critique the course so we can make it better next time.

Before we begin the course evaluation, however, there are a couple of things I want to show you. Please turn to the beginning of your Student Text. Included in the document is a "Dedication to Reviewers".

(OPTIONAL) YOU MAY CHOSE TO READ THE DEDICATION TO THE COURSE PARTICIPANTS.

The Dedication to Reviewers is a good summary of what you do and what you should strive for as a reviewer of environmental impact assessment documents and as a participant in the environmental impact assessment process.

You all came into this course with some degree of experience and aptitude in environmental impact assessment review, and you are all leaving with enhanced abilities and understanding of your role as reviewers. This dedication was written to remind you of what we reviewed and discussed over the last four days. I hope you will commit yourself to following this dedication every time your participate in an environmental impact assessment review process.

I also want to take this opportunity to give you something else to remind you of this course. The facilitators of this course, including myself, want to thank you for participating. I enjoyed myself and learned a lot, and I hope you did as well. By successfully completing this course, you have improved your skills at environmental impact assessment review. This is an accomplishment you can be proud of. To recognize this accomplishment, I want each of you to have a Certificate of Completion.

DISTRIBUTE CERTIFICATES OF COMPLETION.

PART B Course Evaluation (Individual Exercise, 20 min.)

The facilitated part of this course has come to an end, but there is one last thing I would like to ask of you. I would like you to assist us in conducting a different kind of review — an evaluation of this course. The only reason this course exists is to help you and others like you become more effective reviewers of environmental impact assessments. We have presented many ideas and large amounts of information in this course in an attempt to achieve that goal. So please be candid and direct in telling us how we did. This is your course. We want to hear if it met your needs.

LEAD A DISCUSSION ON THE PARTICIPANTS EVALUATION OF THE COURSE, IN PARTICULAR FOCUS ON THE FOLLOWING.

- *Do you think any part of the course could have been done better? How can it be improved for the next group of participants?*
- *Were there certain portions of the course you really liked and found most valuable?*
- *Could the other portions of the course be made more useful?*
- *What will you take away from this course and use in practice?*
- *What types of follow-up to this course would you like to see?*

Please provide your comments in your written evaluations as well and we will be sure to consider the necessary changes for future courses. At this point in time, there is no one more qualified than yourself to critique this course.

- *Does everyone have a copy of the evaluation form distributed on the first day of class?*

DISTRIBUTE HANDOUT # 1-3 (EVALUATION FORM) TO ANY PARTICIPANT WHO NEEDS A NEW COPY.

I thank you in advance for your help for your critique and observations.

Please place your evaluations in a pile on the table as you leave. I will return to this room about half an hour from now to collect the completed evaluations. Before I leave, does anyone have any questions about this evaluation form, or questions or comments for me or the rest of the class?

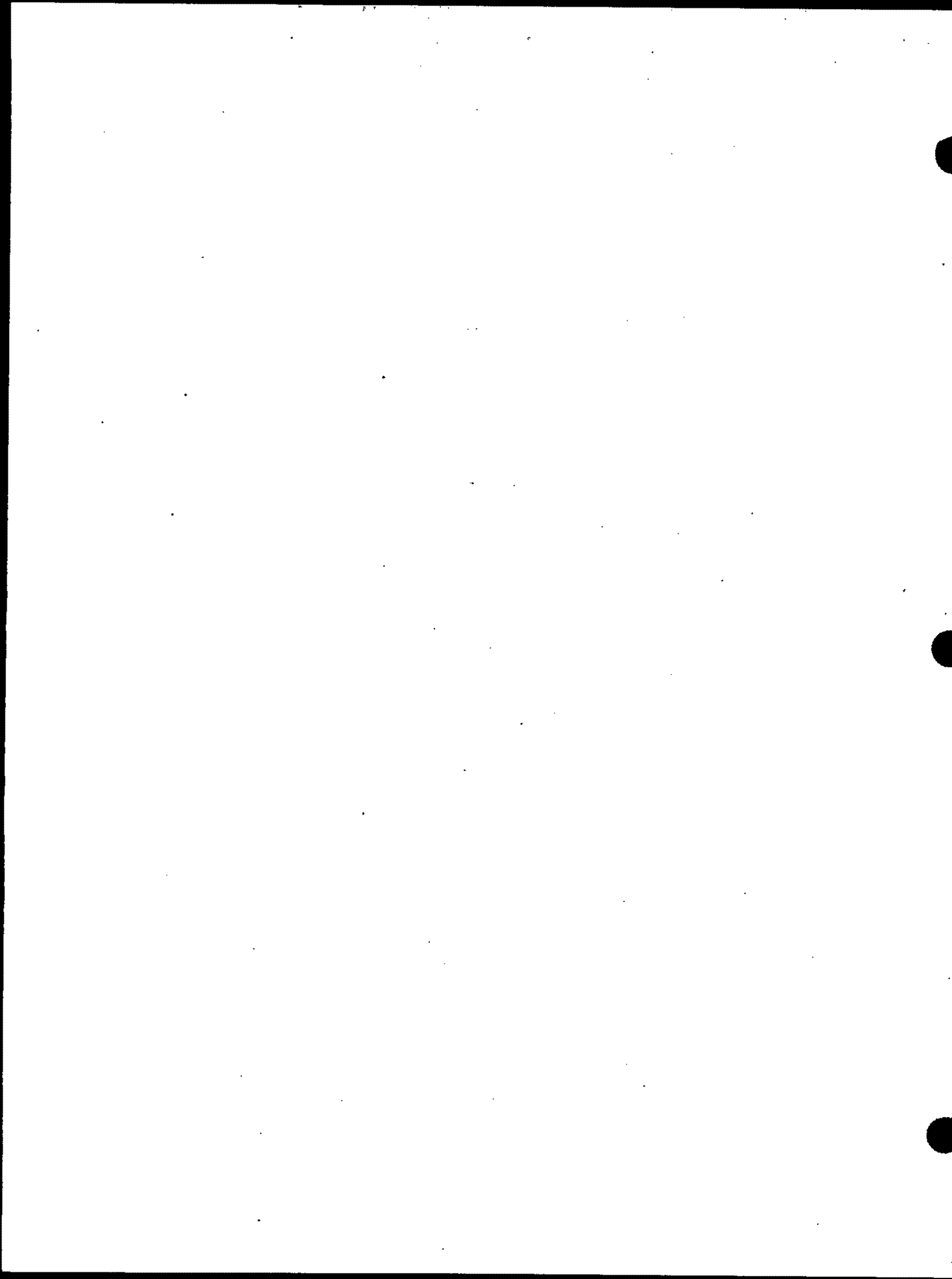
PAUSE TO ALLOW PARTICIPANTS TO BROWSE THE QUESTIONNAIRE. ANSWER ANY QUESTIONS THAT ARE RAISED.

Thank you, and good luck.

APPENDIX A

Case Study Information

- **Selecting a Case Study**
- **Case Study Summary Format**
- **Case Study Summaries**
 - **Highway Project**
 - **Habor Improvement Project**
 - **Copper Mine**
 - **Deforestation/Forest Management**



SELECTING CASE STUDIES

This course relies heavily upon the use of actual Environmental Impact Assessments (EIAs) such that participants learn the environmental impact assessment review process while reviewing components of real environmental impact assessments. Four case study environmental impact assessment documents are used in the course, in both draft and final form, and each student reviews both the draft and final version of the same environmental impact assessment.

Four case study environmental impact assessments from the United States are available for use in this course. Facilitation materials specific to these case studies, such as annotated outlines, summaries, and related documents, have been created or compiled for use in this course. However, it is possible to replace up to three of these case studies with in-country environmental impact assessments, where appropriate. In-country case studies may be seen as more interesting and relevant to course participants than environmental impact assessments from elsewhere. Any case study substitution should be discussed and coordinated with the U.S. EPA's module manager and facilitation team leader. The following section discusses criteria that should be applied when deciding whether to substitute in-country environmental impact assessments for the pre-prepared U.S. environmental impact assessments.

Selection Criteria

Selecting appropriate case study environmental impact assessments is important, because they are used to provide students with "hands-on" experience practicing the use of concepts and techniques from the course material. The following criteria should be used when determining whether to substitute in-country environmental impact assessments (or, if in the U.S., other U.S. environmental impact assessments) for one or more (up to three) of the four available U.S. environmental impact assessments. These criteria can be met by a single candidate case study document, or by a combination of all selected documents that together meet the criteria. The criteria are presented with empty check boxes to help keep track of which criteria the case studies meet:

Case Study No.

1 2 3 4

- ☐ ☐ ☐ ☐ The case study document has sections addressing Scoping, Purpose and Need, Alternatives, Affected Environment, Environmental Impacts, and Mitigation. It is also desirable, but not required, that it has sections dealing with Monitoring and Follow Up, and a Record of Decision (ROD) or a ROD summary.

- ☐ ☐ ☐ ☐ The case study assesses a range of issues and impacts, including primary, secondary, and cumulative impacts.
- ☐ ☐ ☐ ☐ Included in the case study environmental impact assessment are discussions on both the natural and human (socioeconomic) environment.
- ☐ ☐ ☐ ☐ There is a range of alternatives presented in the case study.
- ☐ ☐ ☐ ☐ Significant issues are addressed by the case study document.

The four case studies in combination present a range of sector/natural resource issues:

Case Study No.

1 2 3 4

- ☐ ☐ ☐ ☐ infrastructure related to development (e.g., highway, airport, sewer line, new port, etc.);
- ☐ ☐ ☐ ☐ activity related to natural resource use (e.g., mining, logging);
- ☐ ☐ ☐ ☐ water resource issues (e.g., watershed, dam, river, sedimentation, etc.);
- ☐ ☐ ☐ ☐ wetlands and habitat destruction; and
- ☐ ☐ ☐ ☐ small community disruption issues, issues of historic or cultural significance.

The four case studies in combination present a range of possible outcomes from the review:

Case Study No.

1 2 3 4

- ☐ ☐ ☐ ☐ issues requiring additional data gathering;
- ☐ ☐ ☐ ☐ major issues regarding project concept and alternatives related to basic purpose and need for the project and proposed scale;

- ☐ ☐ ☐ ☐ major issues regarding environmental impact potentially causing disapproval or withdrawal with the opportunity for constructing a positive outcome; and
- ☐ ☐ ☐ ☐ a basically sound environmental impact assessment with comments directed to mitigation.
- ☐ ☐ ☐ ☐ The case study has both a draft and a final version. (The final will be used for the last exercise, so it should have some "faults.")
- ☐ ☐ ☐ ☐ The language used in the case study document can be read and spoken by all or almost all of the course participants, or it can be translated to meet this requirement.
- ☐ ☐ ☐ ☐ The case study does not raise highly sensitive political issues. (Case studies that raise highly sensitive political issues may make it difficult or impossible for certain participants to learn effectively during the course.)
- ☐ ☐ ☐ ☐ The document has some discernible flaws, preferably across the board, but at least in three of the six review areas. Flaws should not be so basic or extensive that the document can not be reviewed.
- ☐ ☐ ☐ ☐ Outlines of the documents have been (or can be) annotated so that you know where each of the topics that are addressed by exercises are located.
- ☐ ☐ ☐ ☐ There is a summary (or summary can be developed) of the environmental impact assessment development process for each document.
- ☐ ☐ ☐ ☐ There is a fairly complete analysis of each document, organized by review topic, or such an analysis could be readily developed.
- ☐ ☐ ☐ ☐ Associated documents (appendices, for example) are either available or have been summarized for distribution.

In general, shorter documents that meet the above criteria are preferable to longer documents, as time is limited during the course. Also, case studies that will best facilitate the learning process should be selected over those that, while meeting all of the above criteria, may not be as effective at facilitating learning (e.g., an environmental impact assessment document that is too "dry" or

too "technical"). This is in large part a subjective decision, and must be made by those putting on the course, in conjunction with the U.S. EPA's training liaison and facilitation team leader.

Preparation of Facilitation Materials

This Facilitator's Manual contains pre-prepared facilitation materials that will help you to facilitate the Principles for Review of Environmental Impact Assessments course. Depending on which environmental impact assessment case studies you select for your course, you may or may not need to develop additional facilitation materials.

If you plan to use the four U.S. environmental impact assessment case studies available from the U.S. EPA for use in this course, all facilitation materials related to these case studies have already been prepared for you. However, if you plan to substitute other Environmental impact assessments, such as in-country environmental impact assessments, for the U.S. environmental impact assessments, you will need to develop additional facilitation materials specific to those documents.

Additional materials that must be created for substitute case study environmental impact assessments include some or all of the following:

- Annotated outlines of each environmental impact assessment, which indicate where each of the topics that are addressed by exercises are located.
- A summary of the development process for each environmental impact assessment (if such a summary does not already exist).
- A fairly complete analysis of each environmental impact assessment, organized by review topic (if such analyses do not already exist).
- Associated documents (appendices, for example).

This Facilitator's Manual, and the flip charts and handouts that accompany it, contain all other facilitation materials necessary for the course. This course is designed to be held in a variety of locations around the world. If you do have to create additional facilitation materials, they will most likely be limited to explanatory text to accompany the substitute environmental impact assessment documents.

CASE STUDY SUMMARY FORMAT

USEPA's four-day training course entitled *Principles of Environmental Impact Assessment Review Training* introduces participants to several real Environmental Impact Assessment Case studies during the course. In addition to obtaining actual copies of the draft and final environmental impact assessments, comment letters, relevant documents such as the record of decision and support materials, summary descriptions and analyses must be prepared for incorporation into the facilitator's manual. This guidance provides sample formats and content to create the necessary summary descriptions of the Environmental Impact Assessment case study documents.

The following documents should be prepared for each case study:

- A list of all the relevant documents including all draft documents, all final documents, the ROD, all comment letters or any other relevant correspondence, and any thing relevant to the Region's critique of the document. *All relevant documents should be included in the package provided to the organizers of the course so appropriate copies can be produced for course participants.*
- An index of where key information is to be found in the draft Environmental Impact Assessment document
- A series of summaries of the key issues and points [1 for each element of the document (scoping, purpose and need and alternatives, environmental setting, impact, and mitigation) and 1 for the Record of Decision]
- A chronology of key events that occurred in the development of the Environmental Impact Assessment from project initiation through implementation, monitoring and follow-up

When writing your summary please:

- Ensure that the page numbers for all relevant pages are cited on the index.
- Remember that this summary will be used by the facilitators of the Environmental Impact Assessment Review Training and that they may be unfamiliar with the primary documents prior to their preparation for the course.
- Provide clear and concise information that will aid in prompting discussions on the:
 - Key issues and concepts in this section
 - Strengths of this section
 - Weaknesses of this section.
- Please write your answers to these questions in narrative form.

The following narrative is an example of a summary of the Purpose and Need and Alternatives element of an Environmental Impact Assessment document.

EXAMPLE

Draft Environmental Impact Study - Southern Grand State Transportation Project - Highway Corridor Small Town to Urban City

Environmental Impact Assessment Document Title

March 1998

Date Prepared

United States Department of Transportation Federal Highway Administration and Grand State Department of Transportation

Document Prepared By

United States Environmental Protection Agency

Document Reviewed By (Agency Name)

Purpose and Need and Alternatives

- 1. Is there an adequate project description, including area maps showing the project site and land use features, site map showing property boundaries, location and purpose of all structures, detailed description of project activities including construction, operation and closure as well as the location/areas and time frames for the activities, and a description of the materials flow?**

Yes. In summary, the proposed project is located in the middle portion of the United States, in the State of Grand. This project involves constructing and improving a 4-lane, divided freeway type of road between metropolitan centers and crossing the southwest portion of the state. Southwestern Grand primarily contains small towns, agriculture, and undeveloped areas. The land use features, property issues, and project activities during the phases of the project are addressed in the document.

- 2. Are the purpose and need for the project demonstrated and adequately described?**

The Purpose and Need section provides a logical and well-balanced discussion of why the project should be developed, focusing on aspects of economics and transportation, including economic development, system linkage and highway continuity, safety, traffic flow, air quality conformity, and intermodal relationships (e.g., with maritime centers, airports).

- 3. Does the proposed project meet the purpose and need?**

Yes. Several different needs were identified such as road safety improvement, system linkage and highway continuity, traffic improvements, and economic development, are addressed by the proposed project. However, an assumption seems to be made that road construction is good for economic development for all areas affected by the construction.

4. Are a sufficient range of alternatives identified, including "no-action," reasonable, feasible alternatives, reflective of the range of choices?

The issues identified in purpose and need are complex and although the range of alternatives includes "no-build," "transportation management," and highway upgrade alternatives, the analysis is insufficient as a full range of choices. There is no clear summary of the alternatives that will be evaluated in subsequent sections of the Environmental Impact Assessment. Potentially feasible economic development alternatives are not evaluated, including such efforts as improving the area's rail network, creating rural enterprise zones, expanding job training, and constructing a high technology park(s).

Additionally, while the discussion of the Purpose and Need focused on economics, the economic implications of the highway alignments (other than cost) were not considered in the development of alternatives.

5. Do the alternatives satisfy the purpose and need?

While the alternatives presented do satisfy the purpose and need if certain assumptions are made, the analysis has not been detailed enough to support the range of alternatives that have been presented.

EXAMPLE

Environmental Impact Assessment Document Title

Date Prepared

Document Prepared By

Document Reviewed By (Agency Name)

INDEX OF DOCUMENT CONTENTS

REVIEW ELEMENT

**RELEVANT PAGES IN THE DRAFT ENVIRONMENTAL
IMPACT ASSESSMENT DOCUMENT**

1. Scoping

2. Purpose and Need and Alternatives

3. Environmental Setting

4. Impact

5. Mitigation

6. Record of Decision

Environmental Impact Assessment Document Title

Date Prepared

Document Prepared By

Document Reviewed By (Agency Name)

SCOPING REVIEW SUMMARY

1. Is scoping addressed in this document? If not, is it documented in a different document? If so, which document?
2. Does it identify all of the significant issues for the natural environment? For the human environment?
3. How were issues identified as significant?
4. Are insignificant issues dismissed or discussed?
5. Are all of the interested and affected parties identified? Were views solicited from them?
6. What are the omissions (e.g., issues, interested parties) of any?
7. Are the key issues brought into focus?
8. Is the geographic area adequately identified or characterized?
9. Does the scoping description provide sufficient detail to define the spatial and temporal scope of analyses required for each resource?

Environmental Impact Assessment Document Title

Date Prepared

Document Prepared By

Document Reviewed By (Agency Name)

Purpose and Need and Alternatives

- 1. Is there an adequate project description, including area maps showing the project site and land use features, site map showing property boundaries, location and purpose of all structures, detailed description of project activities including construction, operation and closure as well as the location/areas and time frames for the activities, and a description of the materials flow?**

- 2. Are the purpose and need for the project demonstrated and adequately described?**

- 3. Does the proposed project meet the purpose and need?**

- 4. Are a sufficient range of alternatives identified, including "no-action," reasonable, feasible alternatives reflective of the range of choices?**

- 5. Do the alternatives satisfy the purpose and need?**

Environmental Impact Assessment Document Title

Date Prepared

Document Prepared By

Document Reviewed By (Agency Name)

Environmental Setting

10. **Was each attribute and affected community addressed adequately and accurately?**
11. **Was a baseline established so that impacts could be measured?**
12. **Was expected information and data provided, adequately documented, and used appropriately?**
13. **Was the information presented linked back to the project description and purpose and need and alternatives?**
14. **Was the level of analysis appropriate?**
15. **Was the region of impact/influence delineated, including boundary areas?**
16. **Is the section internally consistent?**

Environmental Impact Assessment Document Title

Date Prepared

Document Prepared By

Document Reviewed By (Agency Name)

Environmental Impact

- 1. Are direct, indirect, and cumulative impacts identified?**

- 2. Were potential impacts associated with all stages of the project identified?**

- 3. Was the significance of impacts adequately determined?**

- 4. Were the approach and methodology used to predict impacts clearly presented and adequate?**

Environmental Impact Assessment Document Title

Date Prepared

Document Prepared By

Document Reviewed By (Agency Name)

Mitigation

- 1. Is a mitigation plan included in the document?**

- 2. Are mitigation options feasible, and are mechanisms for covering their costs adequately described?**

- 3. Are all significant impacts addressed by the mitigation plan?**

- 4. Is a monitoring plan included in the document?**

- 5. Are adequate implementation plans specified for mitigation?**

- 6. Are responsible parties identified and committed to implementation?**

Environmental Impact Assessment Document Title

Date Prepared

Document Prepared By

Document Reviewed By (Agency Name)

Record of Decision

- 1. Is the purpose and need for the action stated in the Record of Decision?**
- 2. Is there an overview of the specific impact assessment process that was followed (e.g., what was done during the development of the document to gain input from interested and affected parties)?**
- 3. Does the Record of Decision have an adequate description of the proposed action?**
- 4. Does the Record of Decision contain a description of the alternatives considered? Is the environmentally preferred alternative identified?**
- 5. Are the environmental impacts associated with the proposed action and the alternatives included?**
- 6. Does the Record of Decision include a detailed justification?**
- 7. Does the Record of Decision contain a summary of the mitigation action plan where required?**
- 8. Are responsible parties identified and committed to implementation?**

Draft Environmental Impact Study - US 113 Planning Study: Snow Hill, Maryland to Delaware State Line, Worcester County, MD.

May 1997

United States Department of Transportation Federal Highway Administration and Maryland State Highway Administration

United States Environmental Protection Agency
Document Reviewed By (Agency Name)

INDEX OF DOCUMENT CONTENTS

REVIEW ELEMENT	RELEVANT PAGES IN THE DRAFT ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT
1. Scoping	Attached news articles and additional EPA letters on the Preliminary DEIS <u>Chapter VI. Comments and Coordination</u> Page VI-101 EPA Letter Page VI-105a EPA Letter Page VI-116 Maryland Office of Planning Letter News Articles and Letters from Congressionals and Constituents
2. Purpose and Need and Alternative	Summary and Summary Table S-1 <u>Chapter I Purpose and Need</u> Page I-8 Table on Accident Statistics (note, they did not include fatality break down for sensitivity of the families whos relatives were involved) <u>Chapter II Alternatives Considered</u> Page II-1
3. Environmental Setting	Chapter III Affected Environment Pages III-36-52 Descriptions of Wetland Sites
4. Environmental Impact	Chapter IV Environmental Consequences Page IV-22-23 - Indirect impacts Page IV-31 Forest Impacts Page IV-46 Impacts to aquatic biota Page IV-51 Pocomoc River Impacts
5. Mitigation	Mitigation Plan (not part of the DEIS)
6. Record of Decision	Alternatives Considered Page 4 Minimizing impacts Page 7

Draft Environmental Impact Study - US 113 Planning Study: Snow Hill, Maryland to Delaware State Line, Worcester County, MD.

May 1997

United States Department of Transportation Federal Highway Administration and Maryland State Highway Administration

United States Environmental Protection Agency
Document Reviewed By (Agency Name)

SCOPING REVIEW SUMMARY

- 1. Is scoping addressed in this document? If not, is it documented in a different document? If so, which document?**

Yes, however because of the number of letters from citizens and public officials (thousands), another document with all the letters is available upon request from the Maryland State Highway Administration. In addition, because there was a preliminary DEIS, which was circulated only among the resource agencies, those letters that were received were not included in the DEIS. Those letters are helpful because the most changes occurred between the pre-DEIS and the DEIS. Those letters from EPA and the US ACE only are attached.

- 2. Does it identify all of the significant issues for the natural environment? For the human environment?**

Yes, based on communication with resource agencies, however, the scoping was short on cumulative impact assessment (it did not include a CIA) and had to be reassessed in the DEIS stages.

- 3. How were issues identified as significant?**

Issues that were identified as significant were identified by providing additional detailed information on the issues. Although some issues that were identified as significant by the resource agencies were dismissed and therefore not addressed in sufficient detail. Example, the resource agencies believe that this project will contribute to secondary growth along the road. However, SHA did not agree and believed that with the road, only 1% additional growth would occur than without it. This was not resolved and SHA went ahead without addressing it in the DEIS.

- 4. Are insignificant issues dismissed or discussed? They are discussed briefly and dismissed.**

- 5. Does it identify all of the interested and affected parties? Were views solicited from them? Yes. The DEIS does an adequate job of identifying interested or affected parties.**

6. What are the omissions (e.g., issues, interested parties) of any? As stated before, the cumulative impact assessment was not defined until after the DEIS was issued and the secondary impacts were not addressed because SHA did not believe there would be secondary impacts.

7. Are the key issues brought into focus?

Yes, for example, it was clear early on that this project was wanted by the public. There was a public group formed called "CRASH" specifically to advocate the widening of the road. The political pressure was also identified early on. This project was predetermined.

8. Is the geographic area adequately identified or characterized?

Yes, although more details of the poultry industry and truck traffic was provided in the DEIS as information unfolded.

9. Does the scoping description provide sufficient detail to define the spatial and temporal scope of analyses required for each resource?

No, we requested that the boundaries be widened to include discussions of the Pocomoc River, which is a state area of concern because of its unique Bald Cypress Swamp habitat. While it is not directly bisected by the road, its tributaries are. In addition, we requested additional discussions on the coastal areas because the growth which is planned as part of the Worcester County Plans is mainly based in this area. Finally, for the cumulative impact studies, we requested that a historical overview be given, based on existing data. However, this was not identified until the DEIS was circulated for review and not at the early scoping stages.

Purpose and Need and Alternatives

Draft Environmental Impact Study - US 113 Planning Study: Snow Hill, Maryland to Delaware State Line, Worcester County, MD.

May 1997

United States Department of Transportation Federal Highway Administration and Maryland State Highway Administration

United States Environmental Protection Agency
Document Reviewed By (Agency Name)

Purpose and Need and Alternatives

1. **Is there an adequate project description including area maps showing the project site and land use features, site map showing property boundaries, location and purpose of all structures, detailed description of project activities including construction, operation and closure as well as the location/areas and time frames for the activities, and a description of the materials flow?**

Yes. In summary, the proposed project is located in the southeastern United States, on the eastern shore of Maryland. This project involves the construction of a rural 2-lane undivided type road to a 4-lane, divided highway (23.8 miles). The area is described primarily as rural and consists of small town developments, agriculture and undeveloped areas. However, 113 serves as a connector between Delaware and Virginia through Maryland. The northern segment also experiences high summer traffic volume because of the beach resort town of Ocean City, MD, located east of the existing road. Land use features, maps and a description of the area are described in the document.

2. **Are the purpose and need for the project demonstrated and adequately described?**

The Purpose and Need section provides a focused discussion on safety problems associated with the road (from 1980-1995 there have been 41 people killed on the N/S road segments combined) and traffic congestion data. However, the purpose and need claims that economic development is not considered part of the need for the widening of the road, even though the Worcester County Plan includes the upgrade of the road as part of the future growth of the County.

3. **Does the proposed project meet the purpose and need?**

To some extent, however, it is not clear that the widening will actually alleviate the high

number of fatalities that occur on the road. While the document claims that the severity of the accidents will be less, the widening will not necessarily largely reduce the number of accidents. Because of the public and political pressure in favor of widening US 113, these issues were not resolved.

4. Are a sufficient range of alternatives identified, including "no-action", reasonable, feasible alternatives reflective of the range of choices?

Partially. A wide array of build alternatives and configurations to reduce impacts to ecologically sensitive areas were brought forward in the document. However, if the purpose and need would have focused on the actual problems linked to accident fatality (51% of the fatalities were alcohol related and 31% were truck related) other alternatives such as reducing truck traffic, providing tighter alcohol enforcement and increasing police patrol could have satisfied the purpose and need of the project. However, too much pressure was being forced on the resource agencies to "give in." The picture of this project was painted as "inevitable" and a "losing battle".

5. Do the alternatives satisfy the purpose and need?

Not necessarily. While the claims are made that the alternatives presented do satisfy the purpose and need based on the assumption that the severity of the accidents will be alleviated, the root cause of the accidents were not addressed.

Draft Environmental Impact Study - US 113 Planning Study: Snow Hill, Maryland to Delaware State Line, Worcester County, MD.

May 1997

United States Department of Transportation Federal Highway Administration and Maryland State Highway Administration

United States Environmental Protection Agency
Document Reviewed By (Agency Name)

Environmental Setting

1. **Was each attribute and affected community addressed adequately and accurately?**
Yes. However the emphasis on the importance of some of the resources were underestimated.
(See important pages above)
2. **Was a baseline established so that impacts could be measured?**
Yes. However, it took some pushing to get the SHA to include cumulative assessment and provide a larger geographical area to provide a baseline from. We requested that the baseline area established around a watershed area and not just an outline of the road configurations.
3. **Was expected information and data provided, adequately documented, and used appropriately? Yes.**
4. **Was the information presented linked back to the project description and purpose and need and alternatives?**
Yes, in that the descriptions were focused on the alternative alignment areas.
5. **Was the level of analysis appropriate?**
For the most part.
6. **Was the region of impact/influence delineated, including boundary areas?**
Yes.
7. **Is the section internally consistent?**
Yes.

Environmental Impact Assessment Document Title

Date Prepared

Document Prepared By

Document Reviewed By (Agency Name)

Environmental Impact

1. Are direct, indirect, and cumulative impacts identified?

Direct impacts are identified. For the preferred alternative the summary chart matrix (S-1, DEIS) explains all the impacts to wetlands, upland forested areas, historical sites, and relocations. The document does not include a thorough discussion of the indirect impacts. (Page IV-22, DEIS) As stated previously, the SHA does not believe that there will be indirect impacts associated with the road. Cumulative impacts are addressed but do not provide and conclusive analysis. It is based on existing information and no new information was attempted.

2. Were potential impacts associated with all stages of the project identified?

N/A

3. Was the significance of impacts adequately determined?

No. The importance of many of the resources effected were underestimated. For example, page IV-46 there is a discussion on the aquatic biota. In this rural area where there are not a lot of paved areas, it seems that the impacts of the surface pollutant load would be greater than what is presented in the DEIS. Also the significance of the importance of the resources are under emphasized. Such as the description of the Pocomoc River (Page IV-51) and Wetland 8 which contains a Bald Cypress Swamp (Page III-37). (This also can be a problem with the Existing Environment section). Up to 111 acres of forests would be impacted by the project, however the significance of this in the context of the whole eastern shore was not described (page IV-31).

4. Were the approach and methodology used to predict impacts clearly presented and adequate?

On some issues, but not all. For example, the wetland functions was clearly stated but the determination that the aquatic resources, groundwater, forests and forest interior dwelling birds was not adequately explained.

Mitigation

1. Is a mitigation plan included in the document?

A brief mitigation description is included in the document but not sufficient enough for the needs of the document. A separate plan has been developed, but the details of the plan has still not been finalized. The separate document is attached.

2. Are mitigation options feasible, and are mechanisms for covering their costs adequately described?

The mitigation options are feasible, but not yet finalized. The mechanisms for covering their costs are not described, nor is the commitment to complete the final designs clear (see ROD).

3. Are all significant impacts addressed by the mitigation plan?

Yes.

4. Is a monitoring plan included in the document?

No, there is no monitoring plan available. Even the Record of Decision is short on showing commitment to monitoring (the who, what, where and whys.)

5. Are adequate implementation plans specified for mitigation?

Implementation plans are more specified in the separate Draft Wetland Mitigation Concept Plan.

6. Are responsible parties identified and committed to implementation?

Responsible parties are generically identified, but specific details are not addressed.

Record of Decision

1. Is the purpose and need for the action stated in the Record of Decision?

No, though it is explained in the selection of alternatives.

2. Is there an overview of the specific impact assessment process that was followed (e.g., what was done during the development of the document to gain input from interested and affected parties)?

No, only a broad statement that the DEIS was circulated for review. (Page 4).

3. Does the Record of Decision have an adequate description of the proposed action?

Yes, it is described in detail up front. (Pages 1-4)

4. Does the Record of Decision contain a description of the alternatives considered? Is the environmentally preferred alternative identified?

Yes, it is identified and explained that the environmentally preferred alternative would not have satisfied all the safety needs of the project. (Page 5)

5. Are the environmental impacts and associated with the proposed action and the alternatives included?

No. Only where the environmental impacts evaluation can be found. (Page 5)

6. Does the Record of Decision include a detailed justification?

Yes, the ROD includes detailed justification for the selected alternative.

7. Does the Record of Decision contain a summary of the mitigation action plan where required?

No, while avoidance and minimization is documented in the ROD, the mitigation action plan is not summarized. (Page 9)

8. Are responsible parties identified and committed to implementation?

Partially. Some agencies are identified in the commitment for enforcement, but additional commitments should be made, such as expertise, to ensure success of mitigation efforts. (Page 11)

Chronology of Key Events

(include all key events identified on the Environmental Impact Assessment Process Flow Chart and any other events that shaped the development of this assessment)

DATE	KEY EVENTS
1/14/97	Publish Notice of Intent (DEIS)
2/19/97	Distribution of Preliminary DEIS to Agencies
3/19/97	Presentation of new alternatives to resource agencies
3/25 & 26/97	Inter-Agency meeting to review revised new alternatives and receive comments on DEIS.
4/28/97	Review of revised DEIS with Federal Highway Administration, Resource Agencies etc..
4/16/07	Public Notice
4/30/97	DEIS Availability Published in Federal Register
6/17/97	Public Hearing
10/15/97	Present Selected Alternative to Interagencies
11/19/97	Preliminary FEIS to agencies
1/21/98	FHWA Signs FEIS
2/98	Final EIS Circulated for Public Review
3/98	Mitigation Package Circulated for Review
4/98	Draft ROD Issued

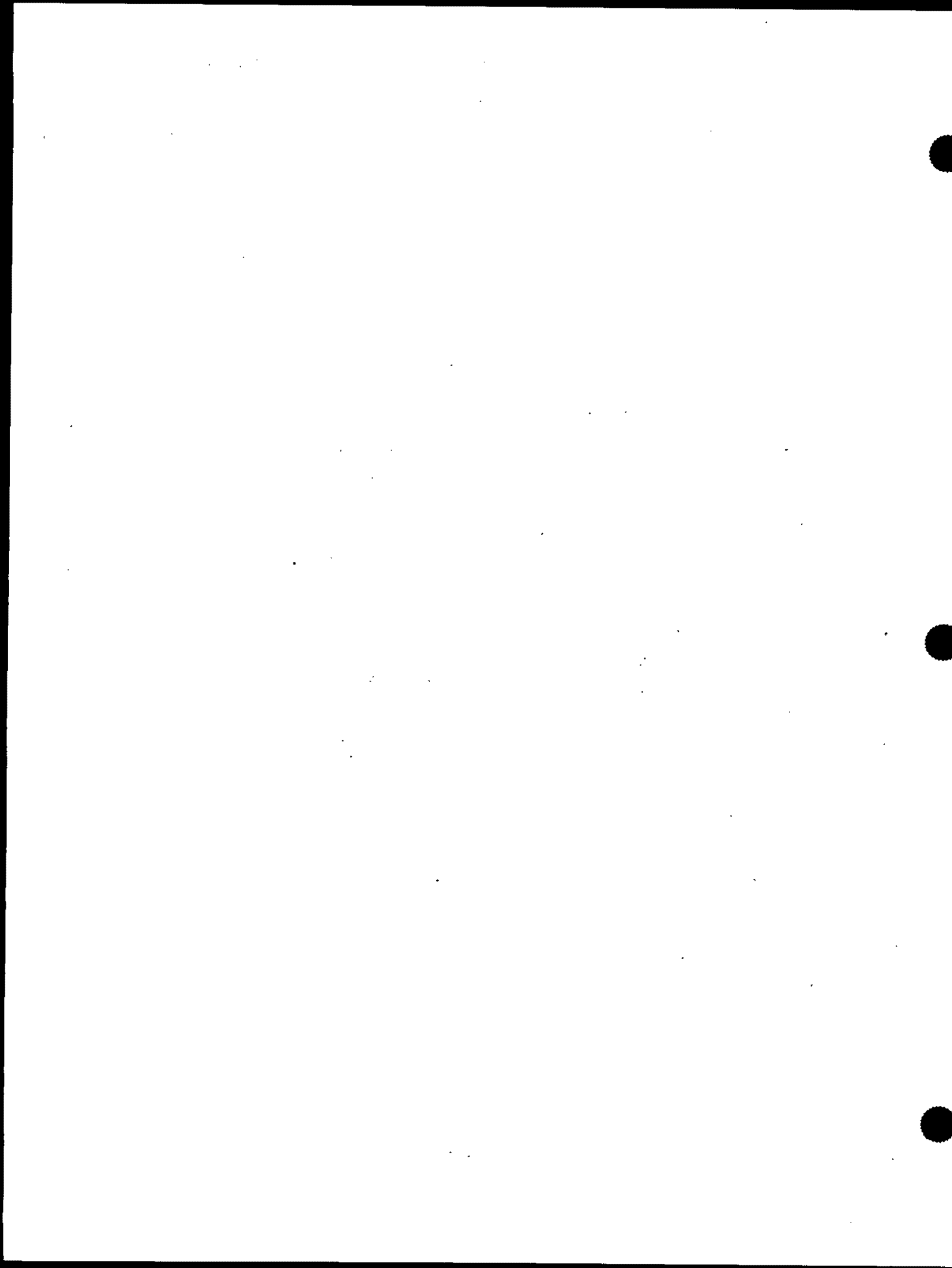
List of all Relevant Documents

(at a minimum list should include the Draft Environmental Impact Assessment, comment letter, Final Environmental Impact Assessment, Record of Decision, and Mitigation Plan)

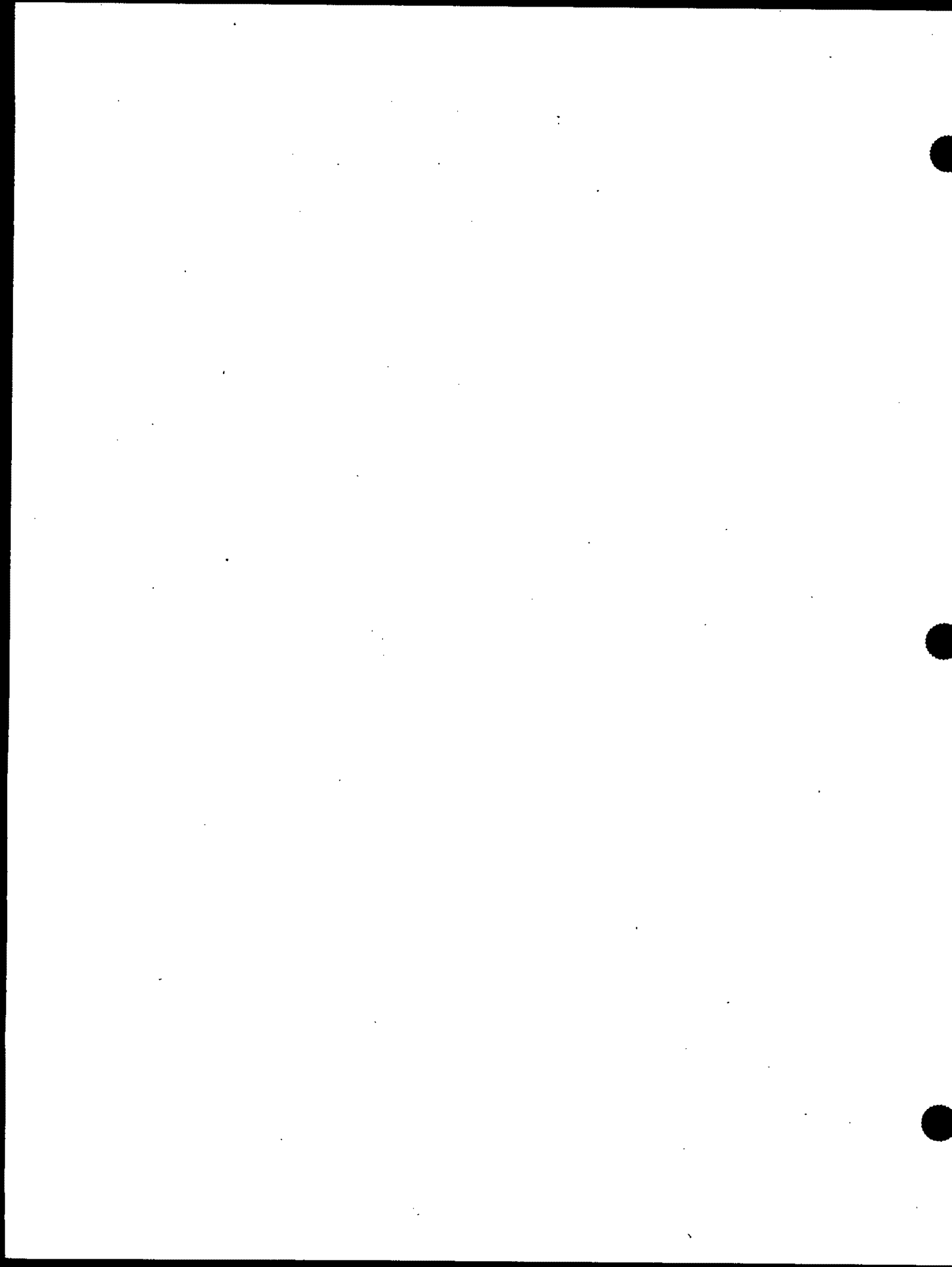
Date	Title	Author
3/31/97	EPA Comment Letter on the Pre-DEIS	Danielle Algazi
3/31/97	US ACE Comment Letter on the Pre-DEIS	Michele Gomez
3/31/97	USFWS Comment Letter on the Pre-DEIS	Dave Sutherland
3/31/97	NMFS Comment Letter on the Alternates Retained	John Nichols
5/97	DEIS	SHA/FHWA
7/18/97	EPA Comment Letter on DEIS	Danielle Algazi
7/17/97	USFWS Comment Letter on DEIS	Dave Sutherland
7/18/97	US ACE Comment Letter on the DEIS	Michele Gomez
7/23/97	NMFS Comment Letter on the DEIS	John Nichols
11/12/97	US ACE Comment Letter on the DEIS	Michele Gomez
2/98	FEIS	SHA/FHWA
3/24/98	Draft Mitigation Concept Plan	SHA
4/98	Draft ROD	FHWA

APPENDIX B

Flipcharts

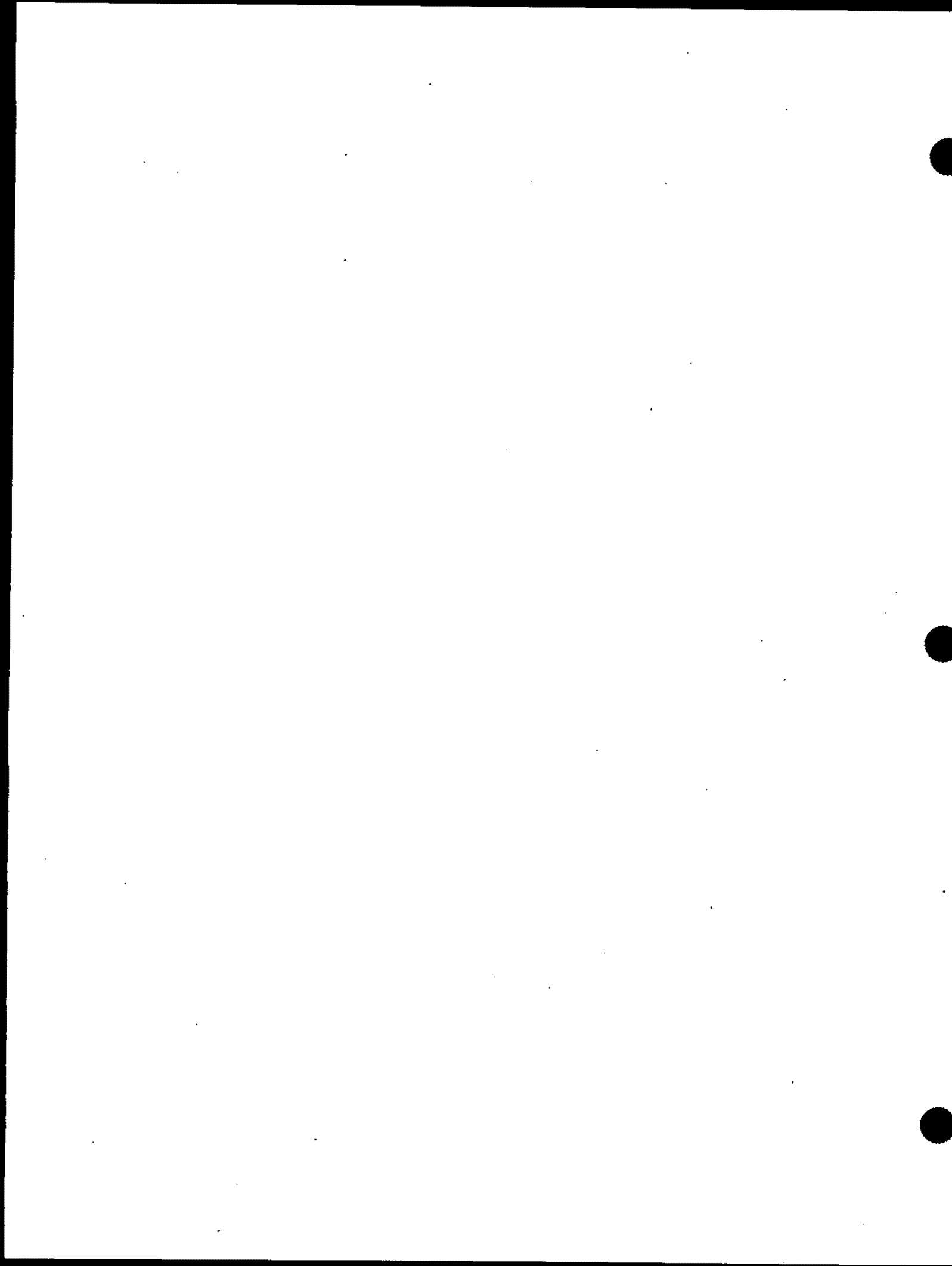


Welcome to
the
Principles
of
Environmental
Impact Assessment
Review
Training

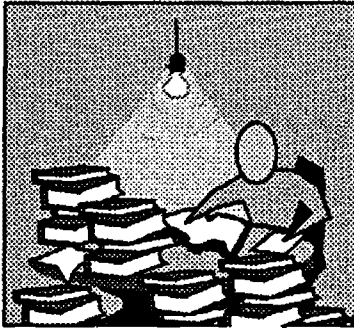


Course Goal

To support your capacity to review environmental impact assessment documents and participate in the environmental impact assessment process.

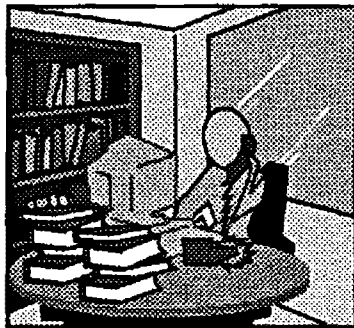


Reviewer Situations



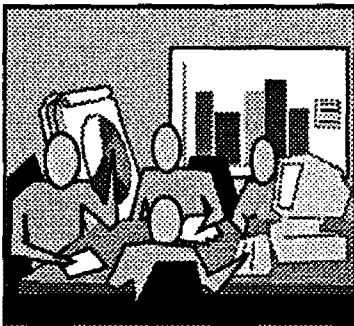
Solo Reviewer

The "solo reviewer" isolated technical review without external assistance, little context information...



Empowered Reviewer

The "empowered reviewer builds own Informal networks and resources... keeps up on environmental, economic and social context information relevant to project and program reviews...uses networks effectively



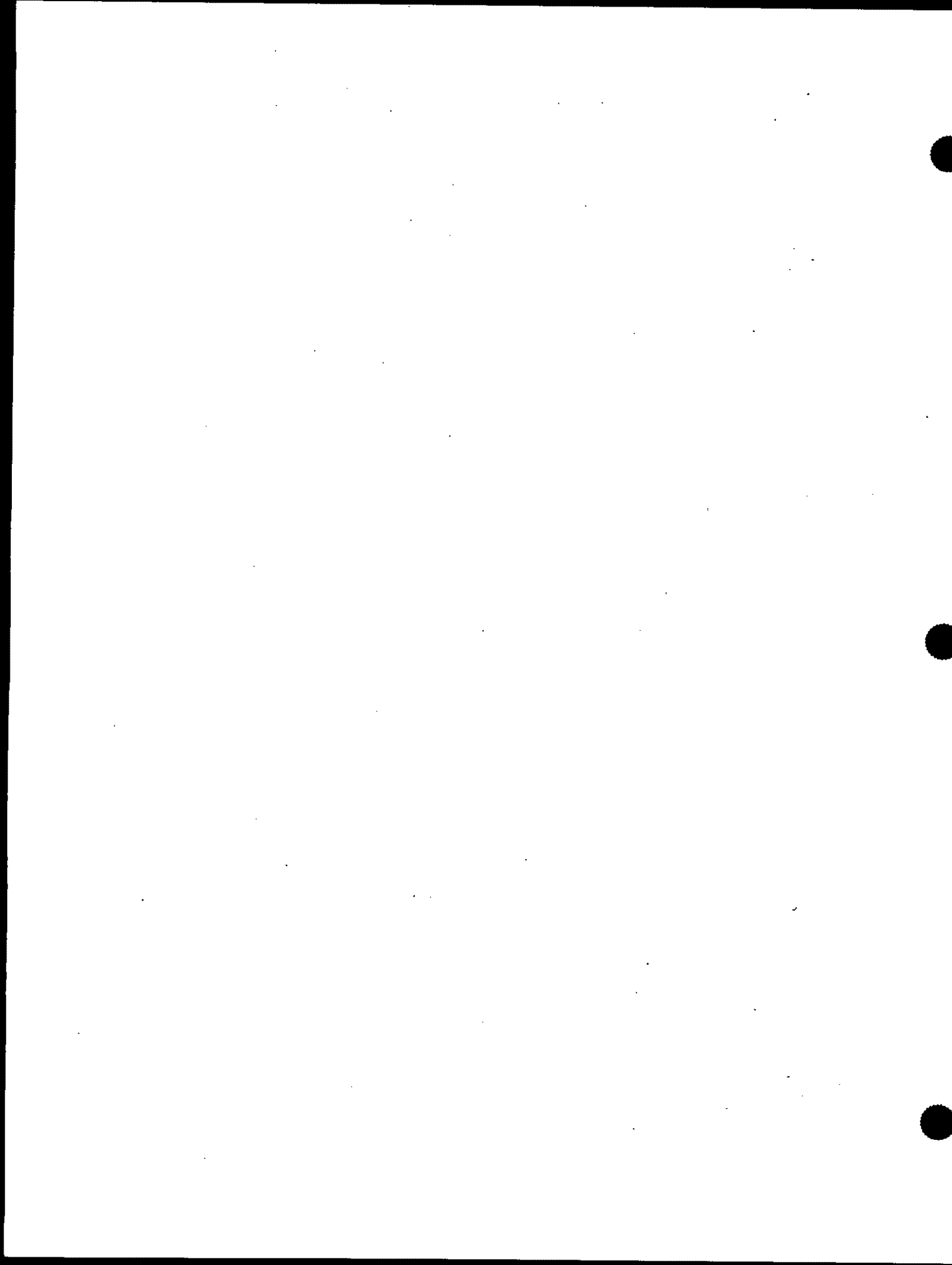
Lead Reviewer

The "lead reviewer" manages... "lead" concept...\$ for experts, provides formal organizational links to experts upon which can draw...needs interpersonal skills and management and communications ability to pull together interdisciplinary team... holistic perspective, timely... gives advice...



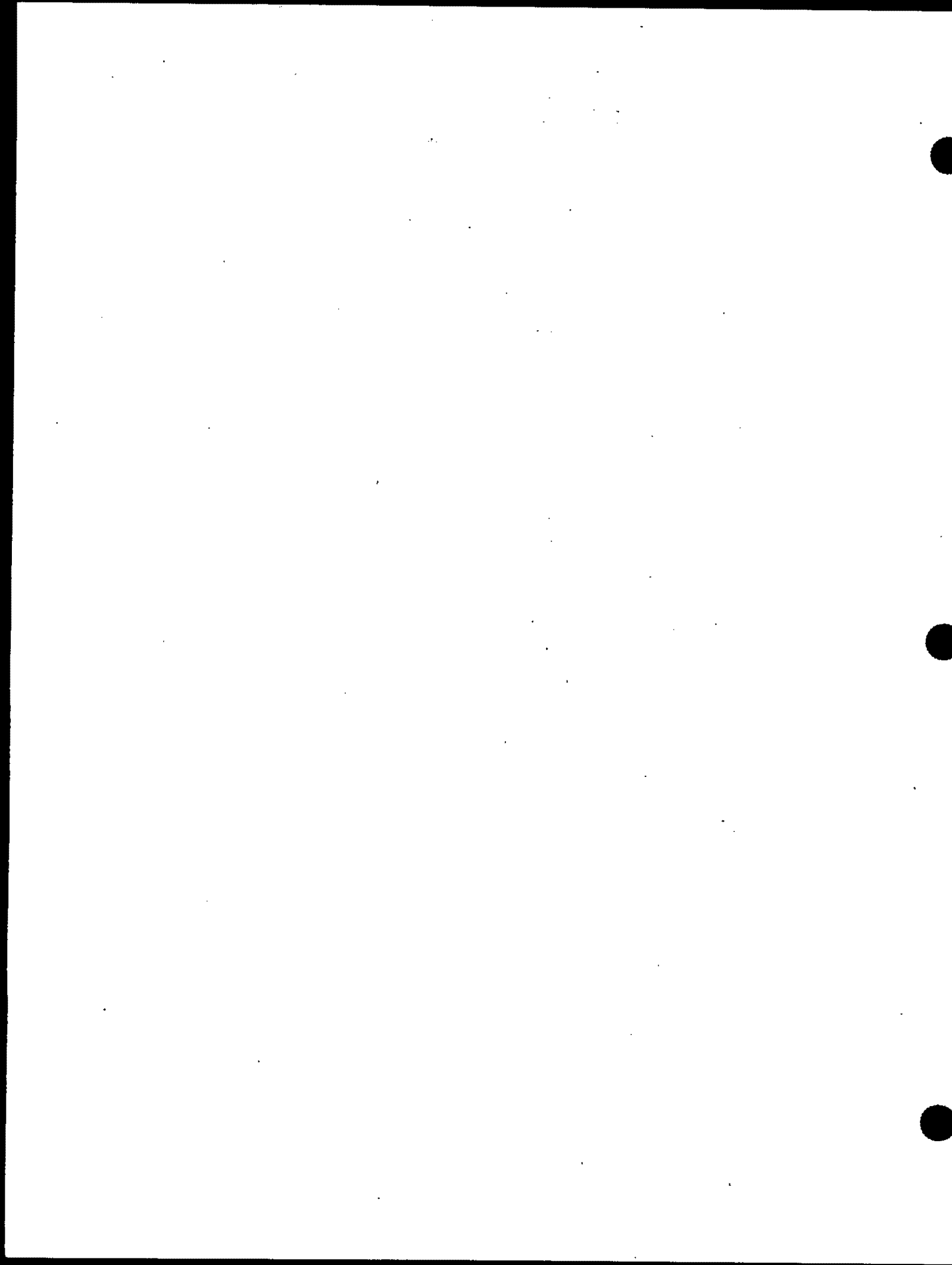
Proactive Reviewer

The "proactive reviewer"...has upfront involvement...attempt to influence document...will review to get best possible...without compromising independence...Can be with a situation "b" or "c"...



Ground Rules

- Listen while others are speaking
- Respect others' opinions
- There are no wrong answers
- Use your imagination
- Timeliness
- Participate



Agenda

Day 1

<i>Registration</i>	8:30
1. Welcome and Introduction	9:10
2. Reviewer's Role (<i>Break included</i>)	10:00
<i>Lunch</i>	12:00
3. Overall Review and Scoping (<i>Break included</i>)	1:00
4. Review of Purpose and Need and Alternatives	3:05
<i>Adjourn</i>	5:00

Day 2

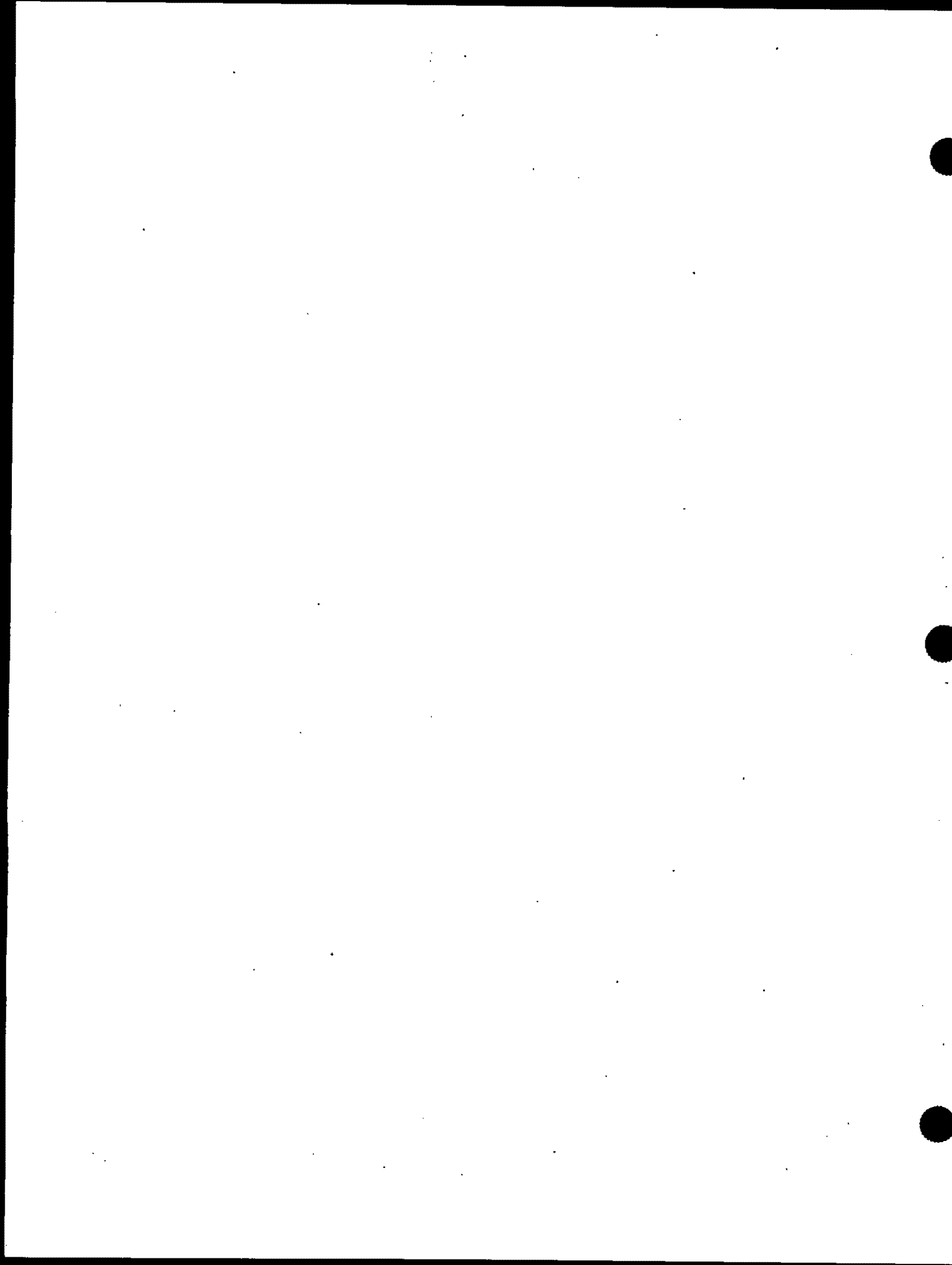
5. Review of Description of the Environmental Setting (<i>Break included</i>)	8:30
6. Review of Potential Environmental Impacts (<i>Lunch included</i>)	10:45
Report Out	1:20
7. Review of Proposed Mitigation (<i>Break included</i>)	2:20
8a. Introduction to Review of the Draft Environmental Impact Assessment	4:00
<i>Adjourn</i>	5:00

Day 3

8b. Preparing and Communicating Reviewer Comments (<i>Break and lunch included</i>)	8:30
Report Out	1:00
Discussion of Public Comment	2:00
9. Final Environmental Impact Assessment Review (<i>Break included</i>)	2:30
<i>Adjourn</i>	5:00

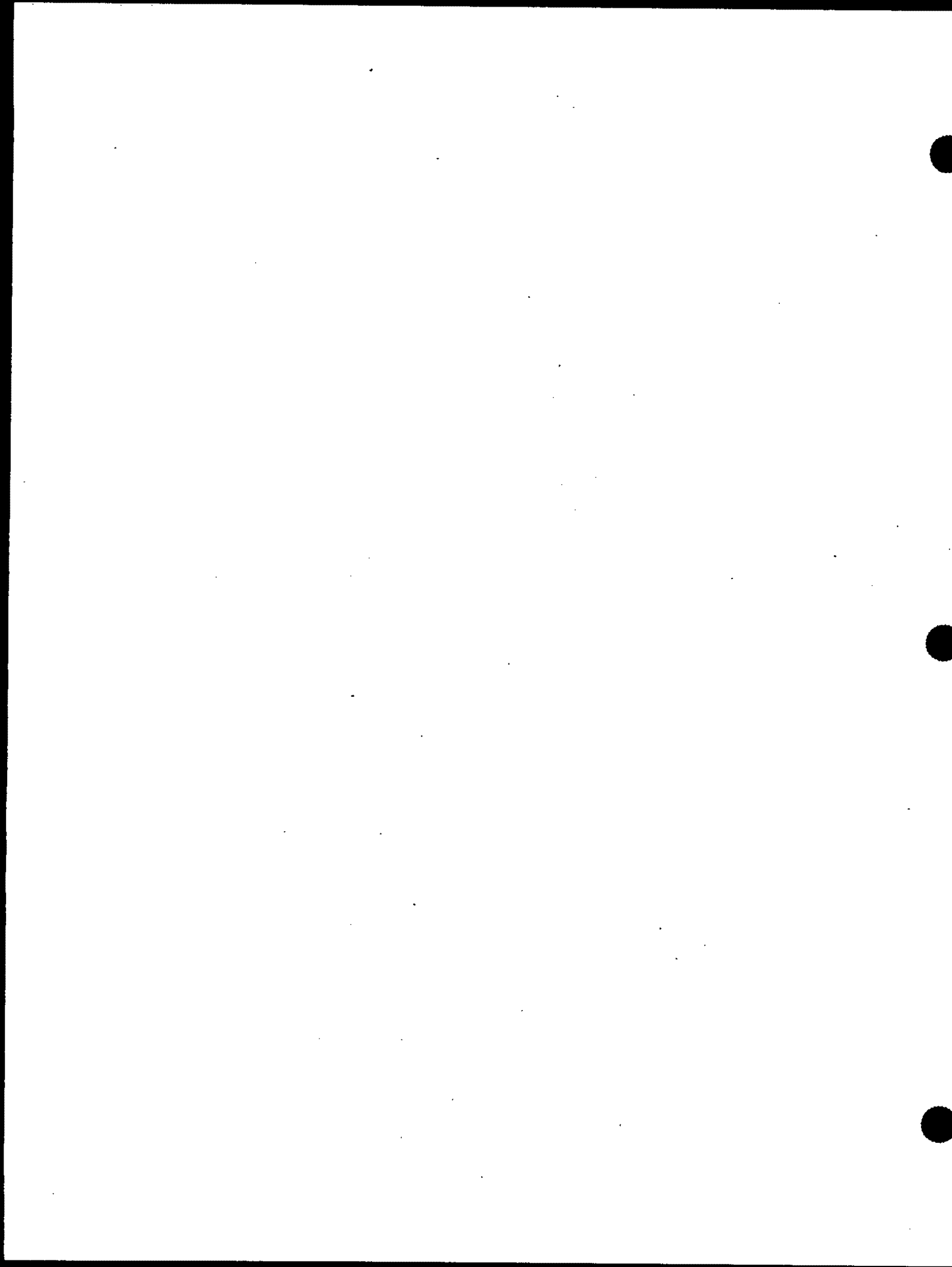
Day 4

10. Prepare a Record of Decision and Mitigation Plan (<i>Break included</i>)	8:30
11. Resources for a Reviewer	10:40
<i>Lunch</i>	12:05
12. Country Specific Applications (<i>Break included</i>)	1:30
Final Wrap-up and Course Evaluation	4:30
<i>Adjourn</i>	5:00

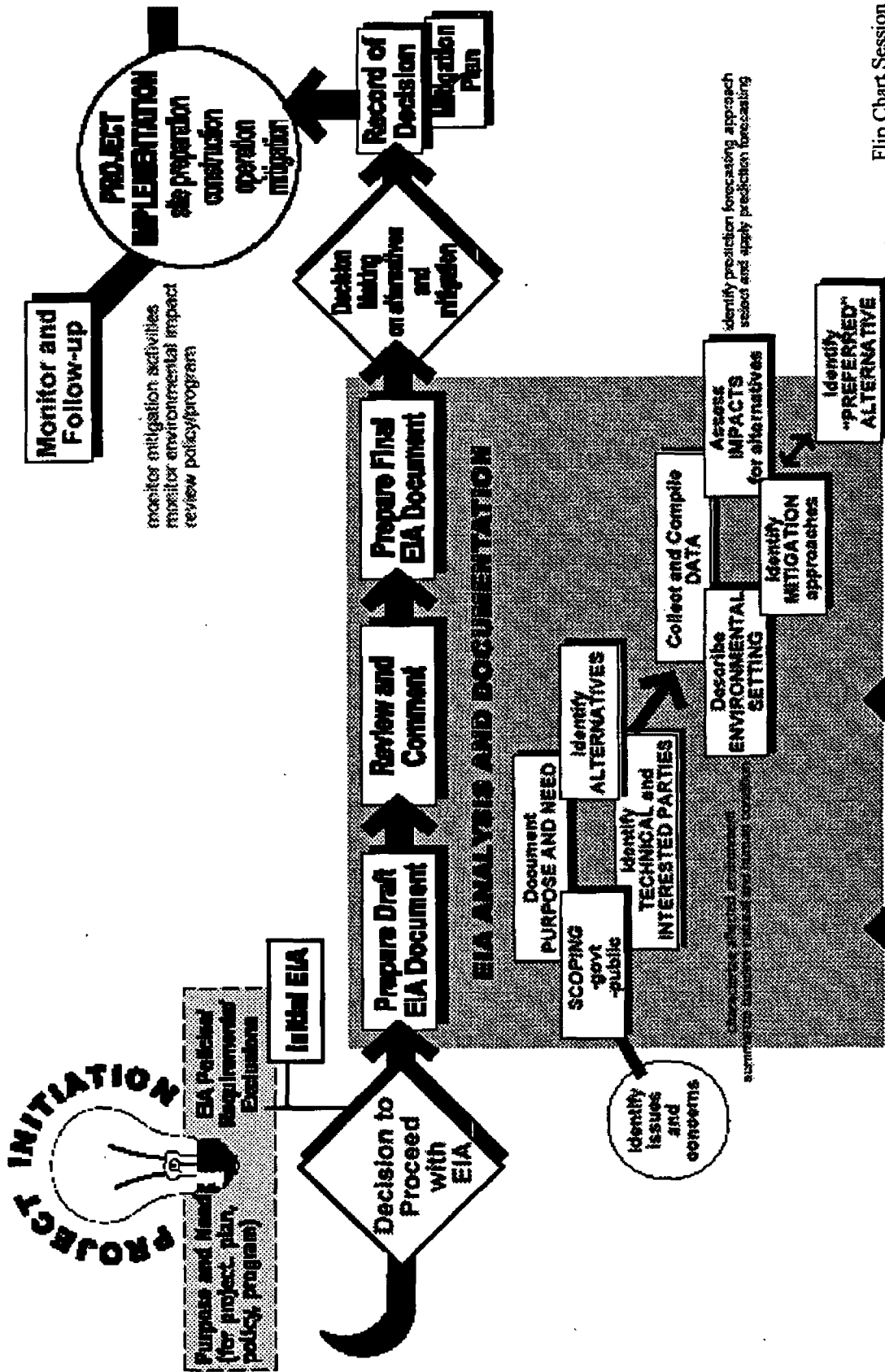


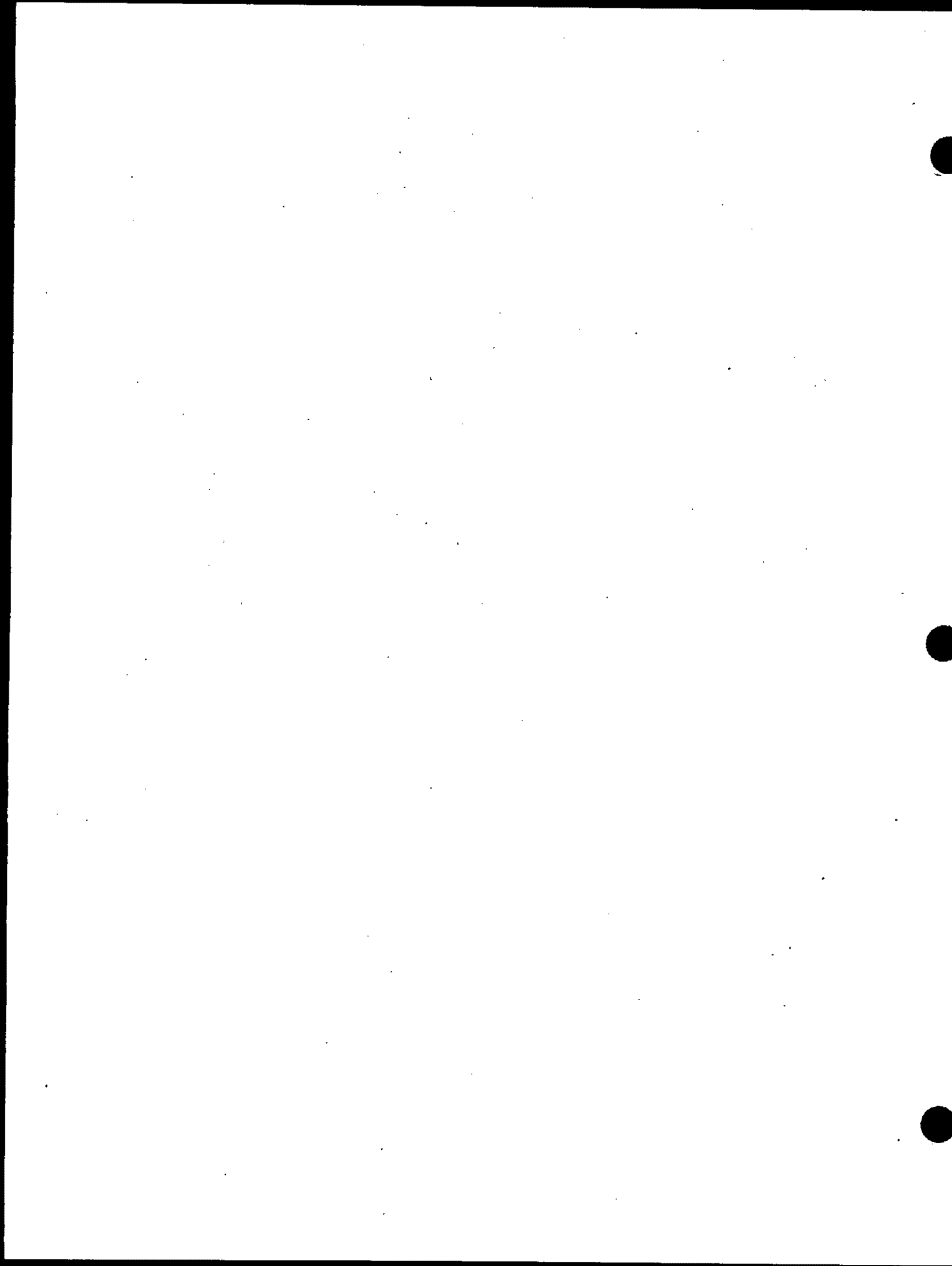
Environmental Impact Assessment Definition

- **Decision-making process**
 - Purpose: Integration of environmental, economic, and social concerns.
 - Decision-oriented: Requires a proposed action and practical alternatives.
 - Scope: Project, program, policy, and/or plan.
- **Systematic, interdisciplinary, reproducible (objective) documented evaluation of potential impacts**
- **Involves all affected stakeholders: public participation is key**



THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

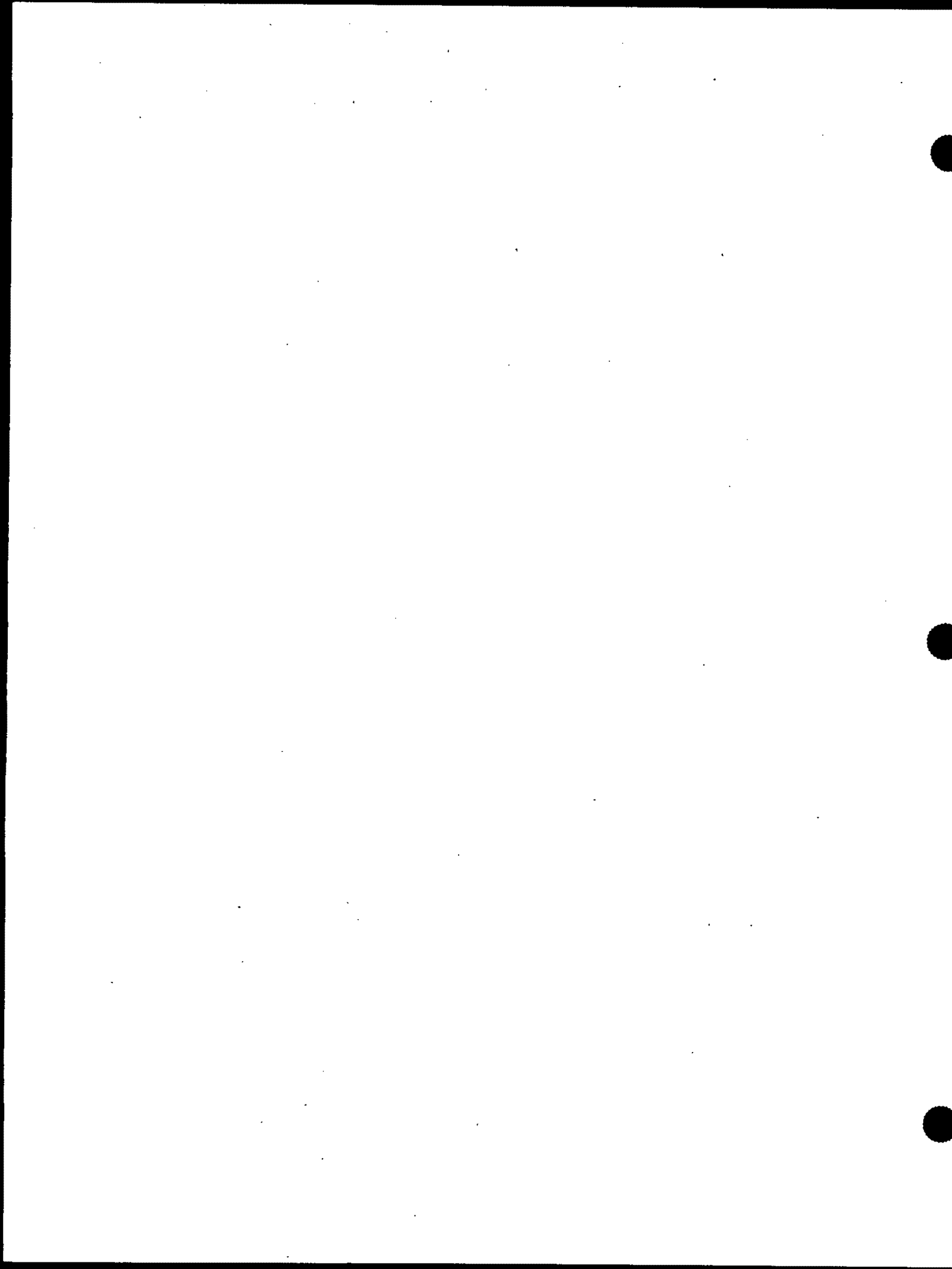




Understanding Context

- Legal

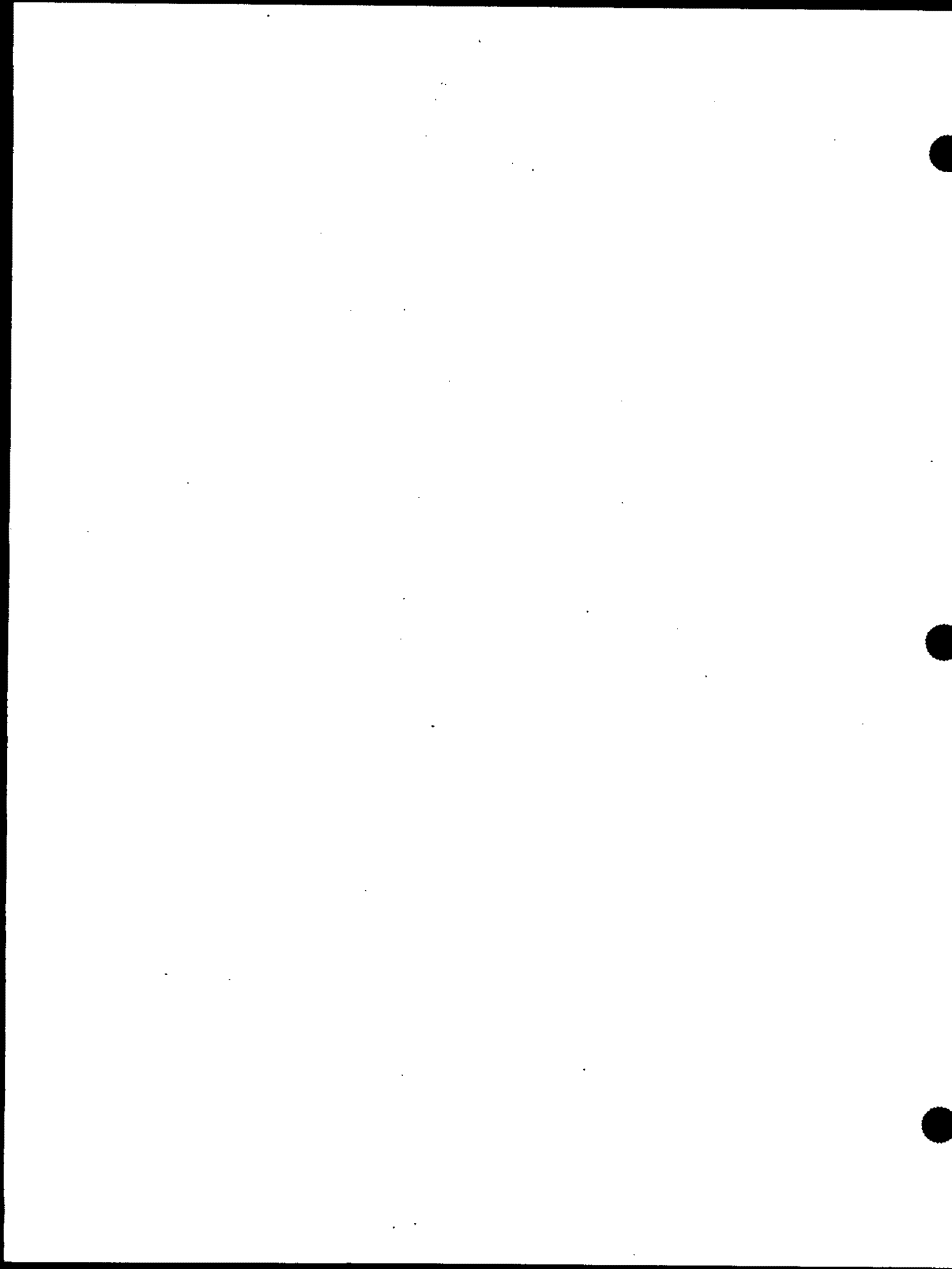
- Institutional



Understanding Context

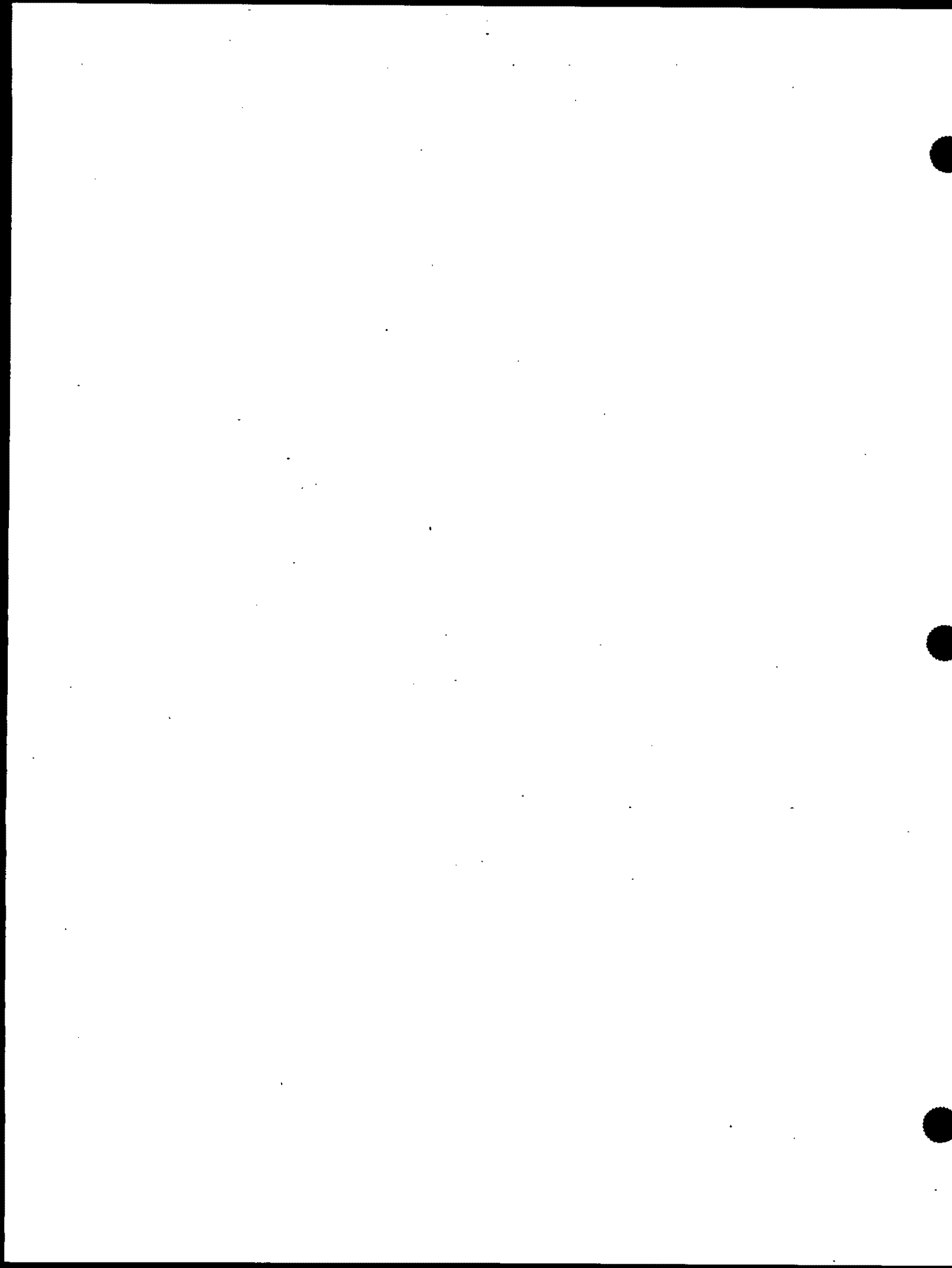
- Organizational

- Personal



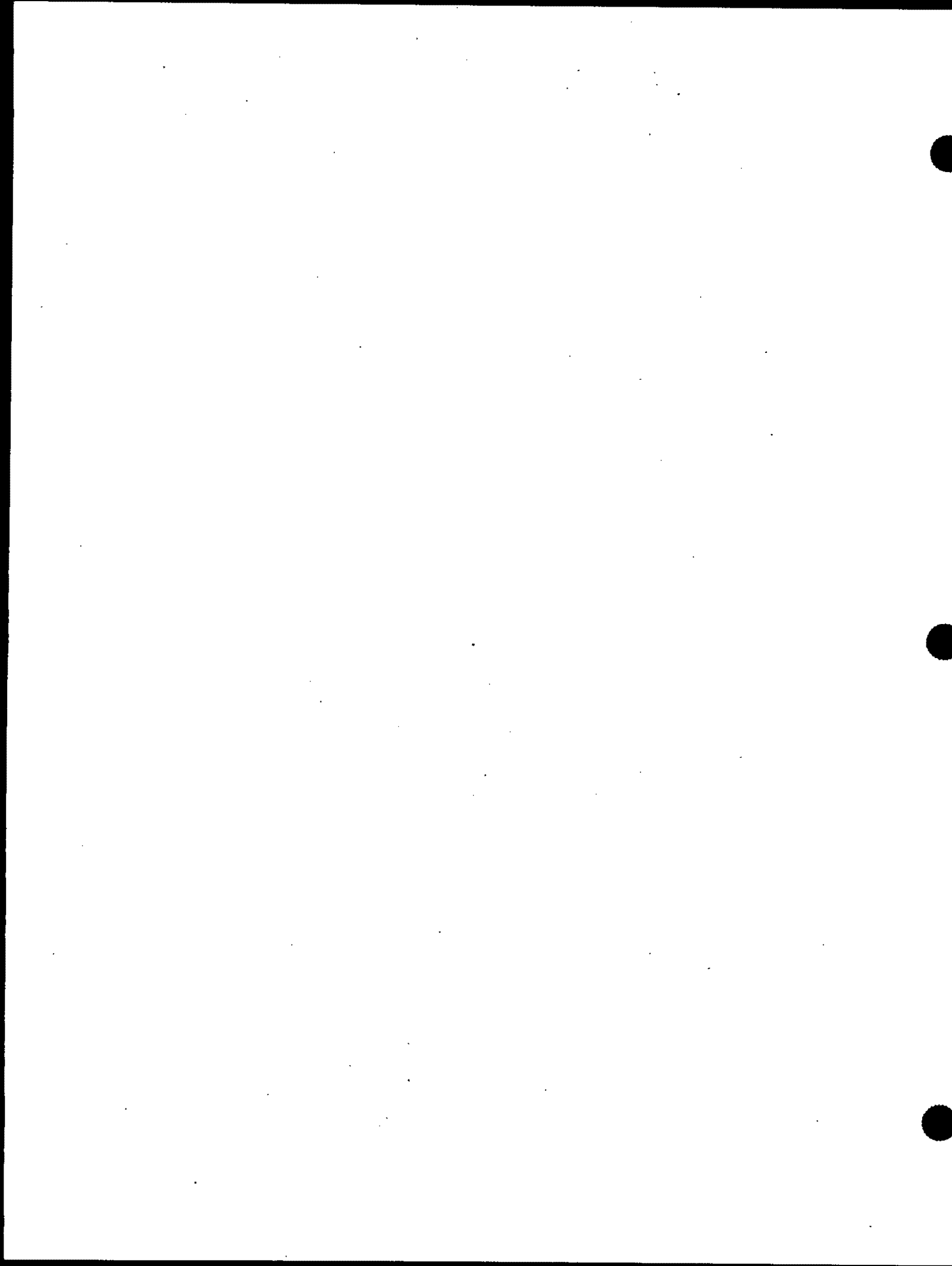
What is the Focus During an Environmental Impact Assessment Review?

- **Completeness - Coverage**
- **Significance**
- **Adequacy**
- **Integrity**
- **Accuracy**
- **Influence**

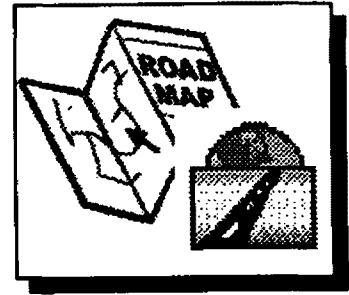


Environmental Impact Assessment Document Contents

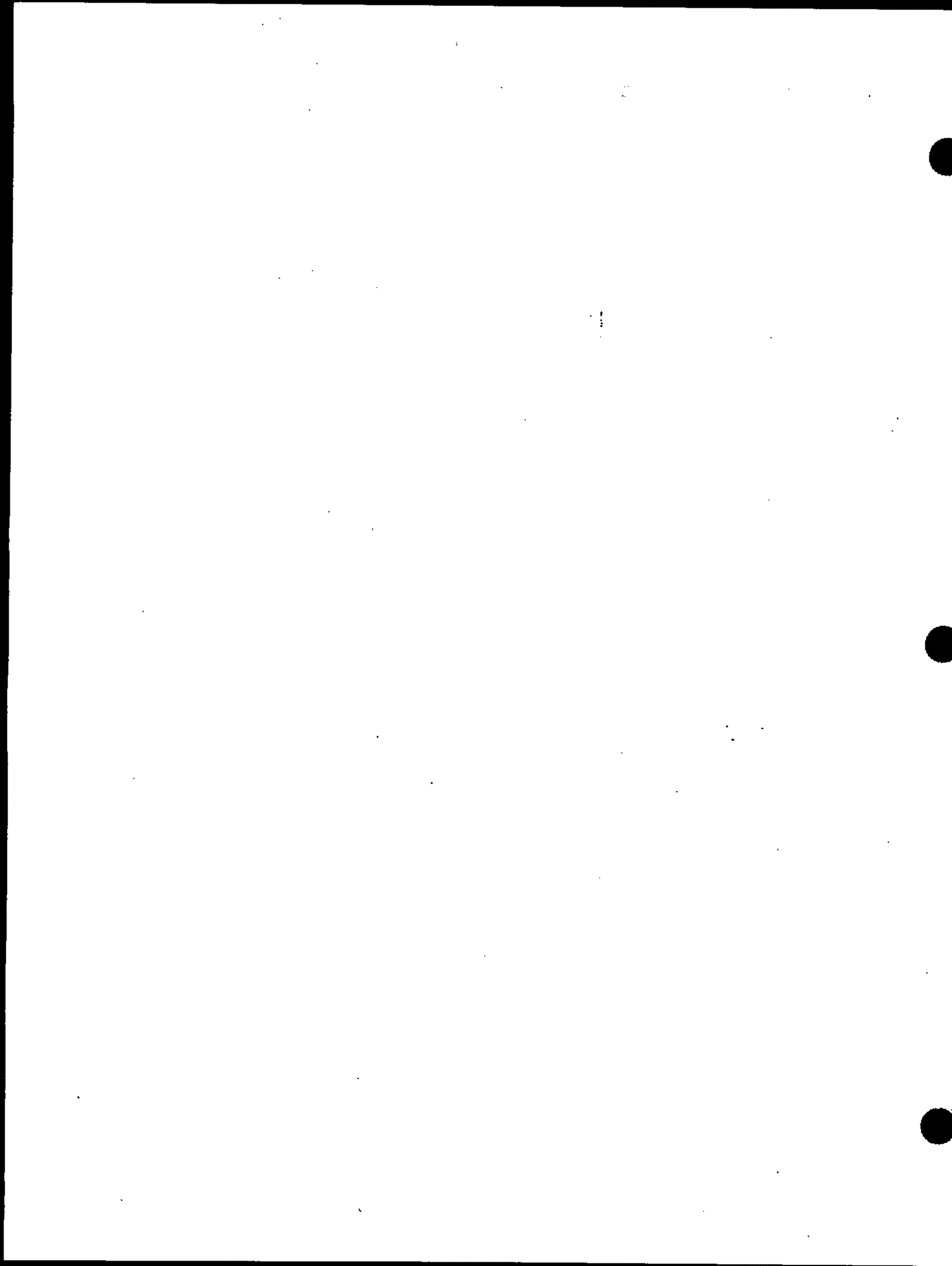
- Cover Page, Summary, Table of Contents
- Purpose and Need
- Scoping
- Alternatives
- Environmental Setting
- Environmental Impacts
- Mitigation
- Lists of Preparers, and Agencies, Organizations, and Persons that Received Copies of the Report
- Index and Appendices



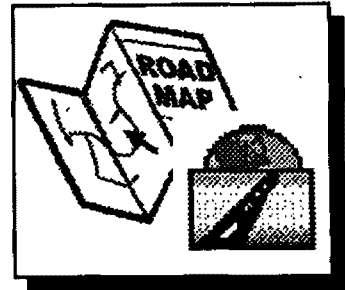
Road Map for Overall Environmental Impact Assessment Document Review (1)



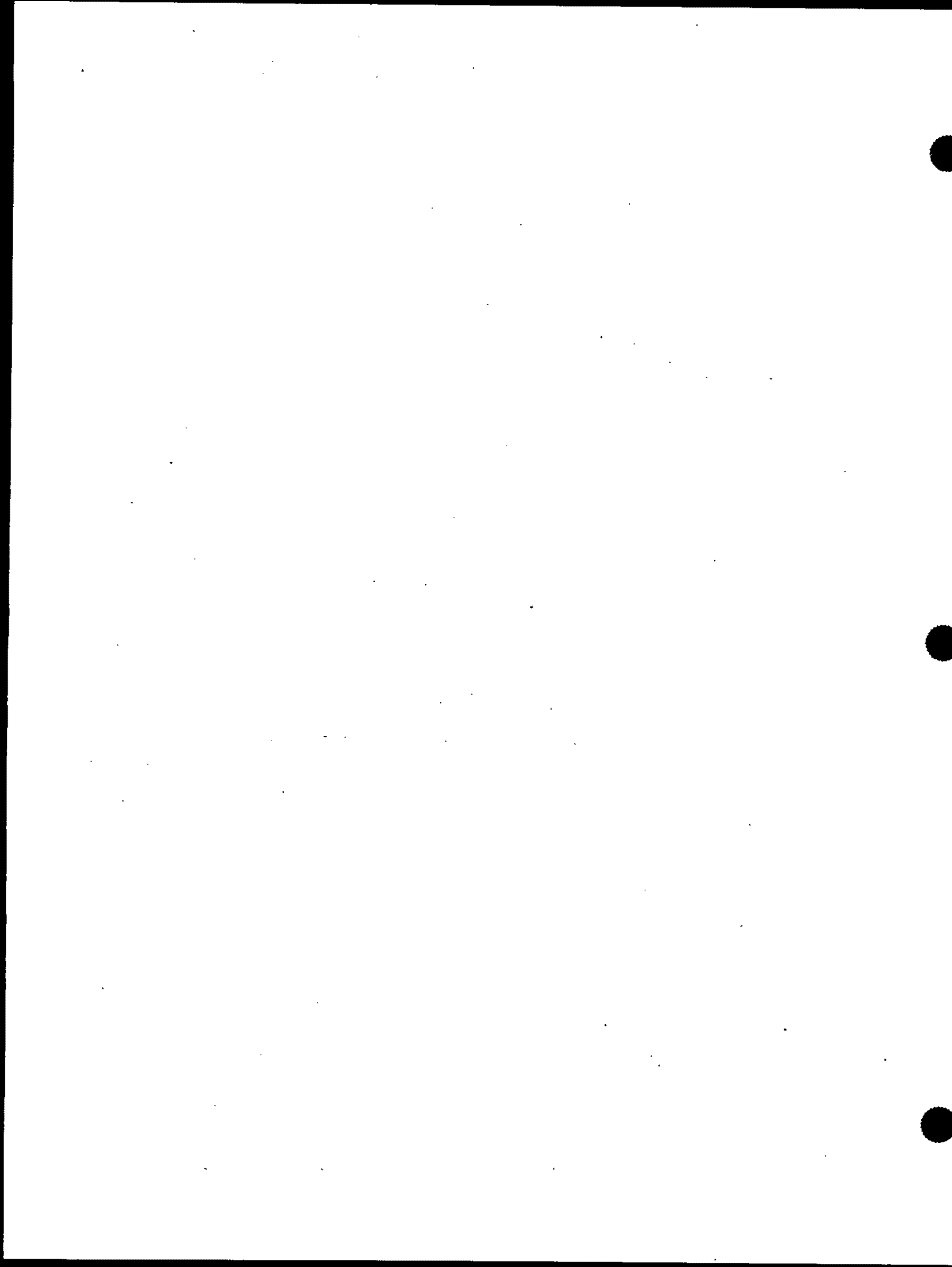
- Review Table of Contents and Executive Summary
- Scan and read the document several times
- Take notes, write down questions
- Go through key environmental impact assessment elements
 - Purpose and Need, Alternatives, Environmental Setting, Impact, Mitigation
- Use checklists where appropriate
- Review the logic and consistency of the document



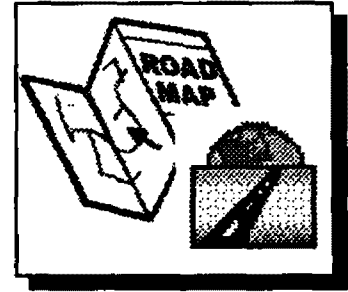
Road Map for Overall Environmental Impact Assessment Document Review (2)



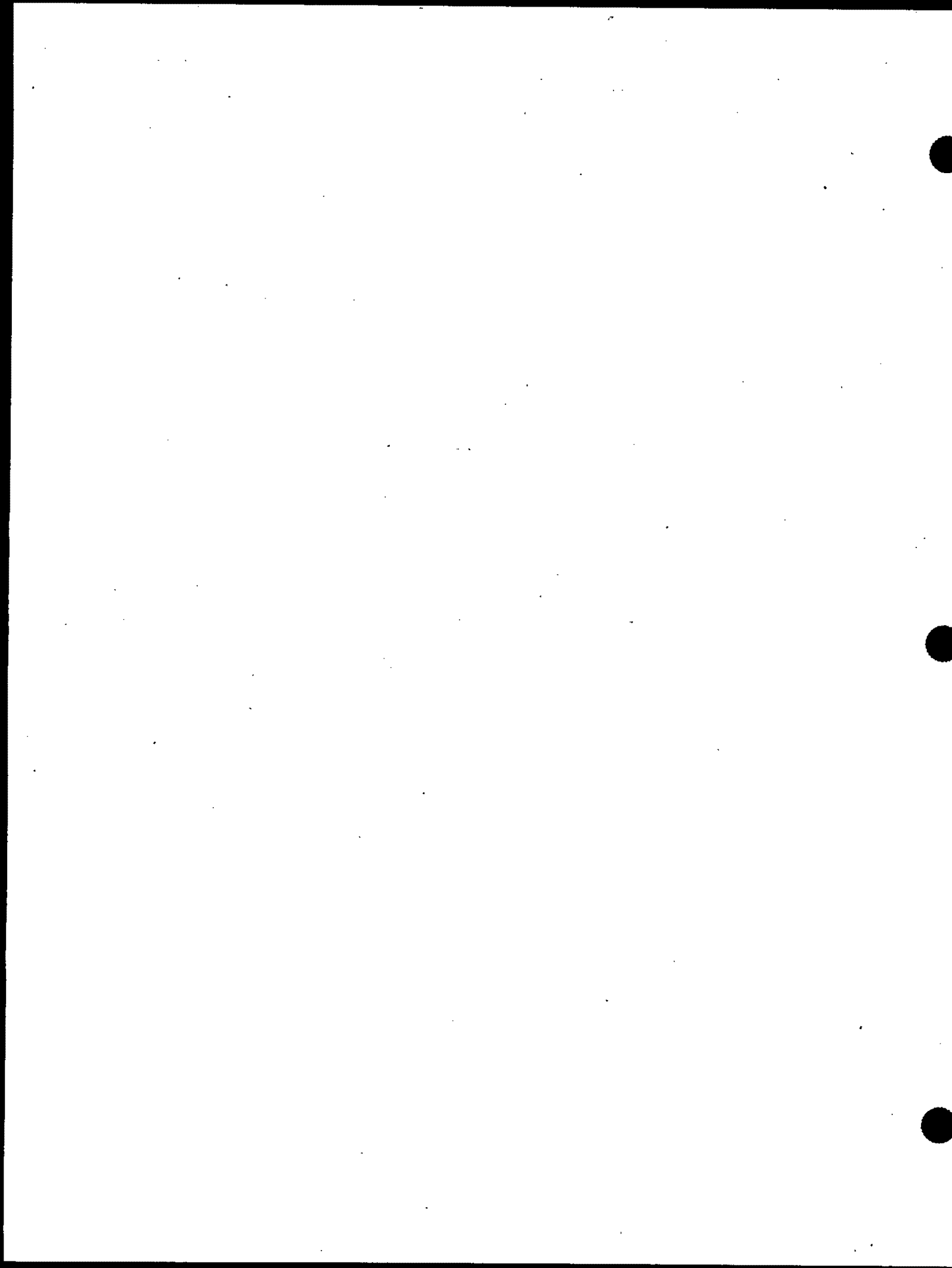
- Use a systematic approach to Identify areas where the assessment is:
 - Incomplete, inadequate
 - Significance unsupported/unclear/ignored
 - Lacks integration
- Identify and adopt perspectives of all interested and affected parties
- Compare document to other environmental impact assessments
- Determine whether the document supports decision-making



Road Map for Scoping Review



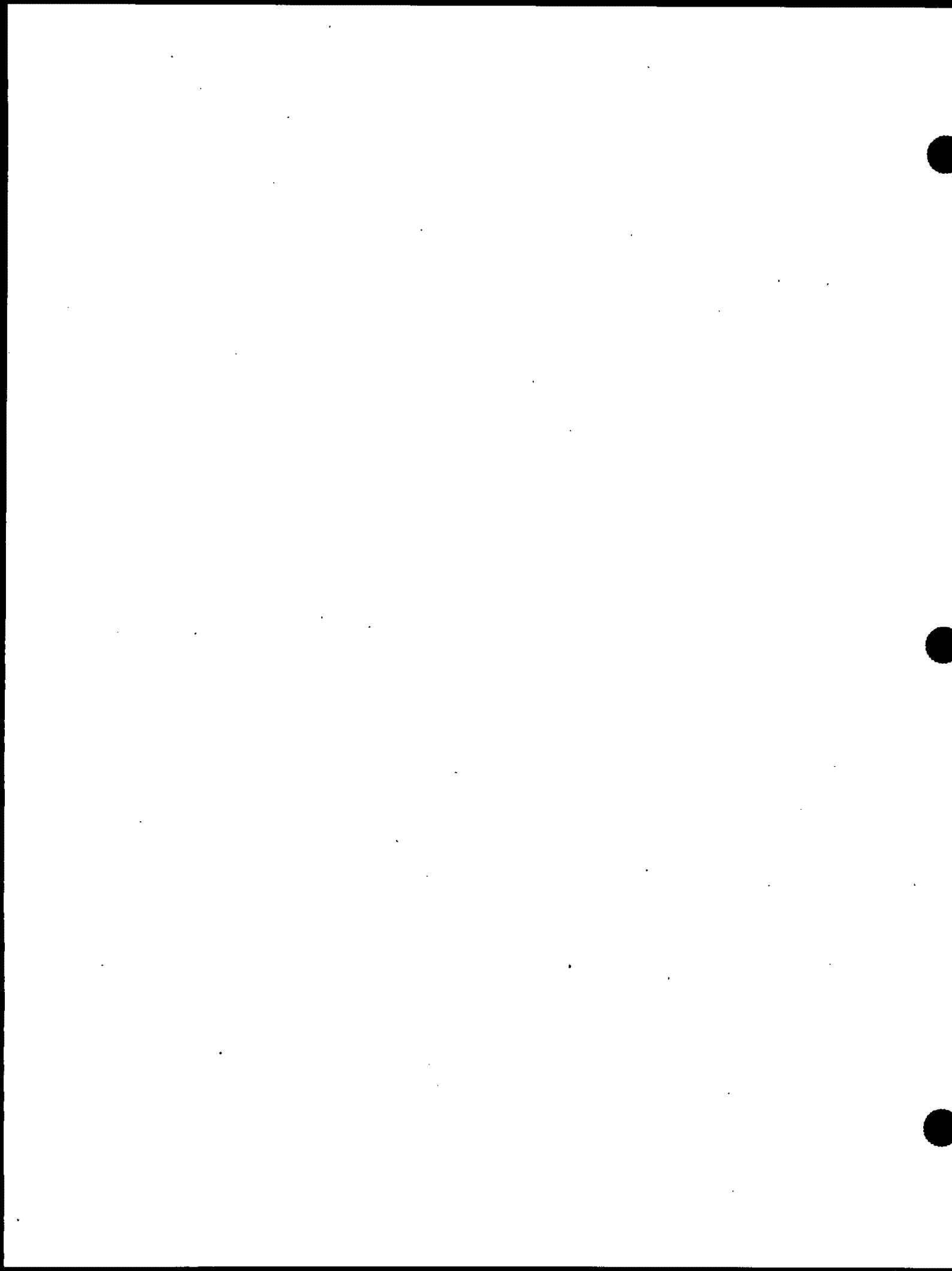
- Scoping was conducted and documented
- Potentially significant issues are identified for natural and human environments
- Insignificant issues are identified and their dismissal justified
- Views of all interested and affected parties are identified and considered
- Sufficient detail provided to define the spatial and temporal scope
- Adequate geographic area considered for the scope
- Omissions are not related to significant issues
- Key issues are brought into focus



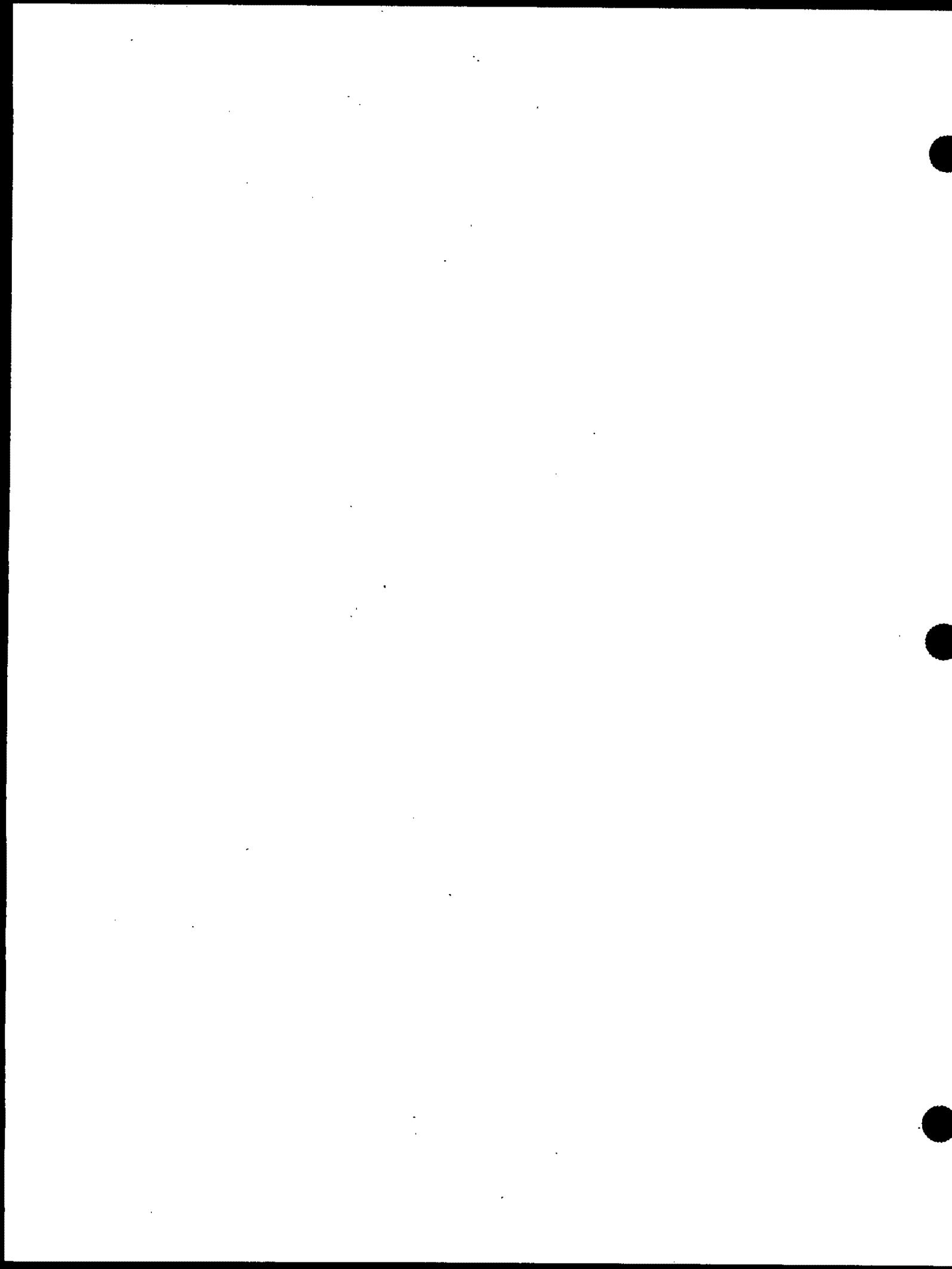


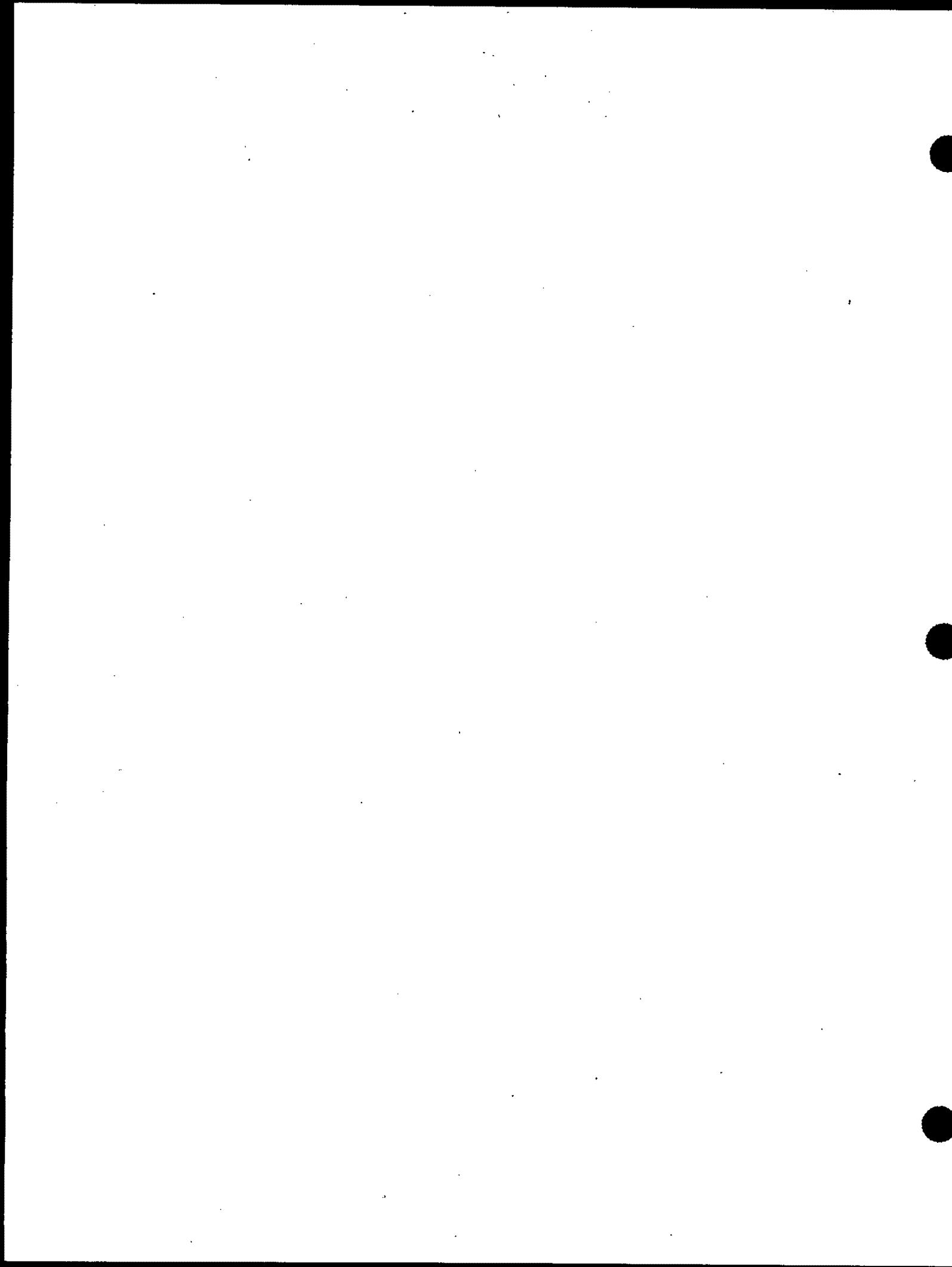
Tools and Techniques

- Information on legal and institutional requirements, policy, and guidance
- Guidelines
- Road Maps
- Checklists
- Student texts
- Library
- Field reconnaissance
- Analytic and predictive models
- GIS maps and overlays
- Environmental impact assessments for similar projects, geographic area, etc.
- Consultation by colleagues/outside experts/academia
- Reviewing other reviewer/public comments



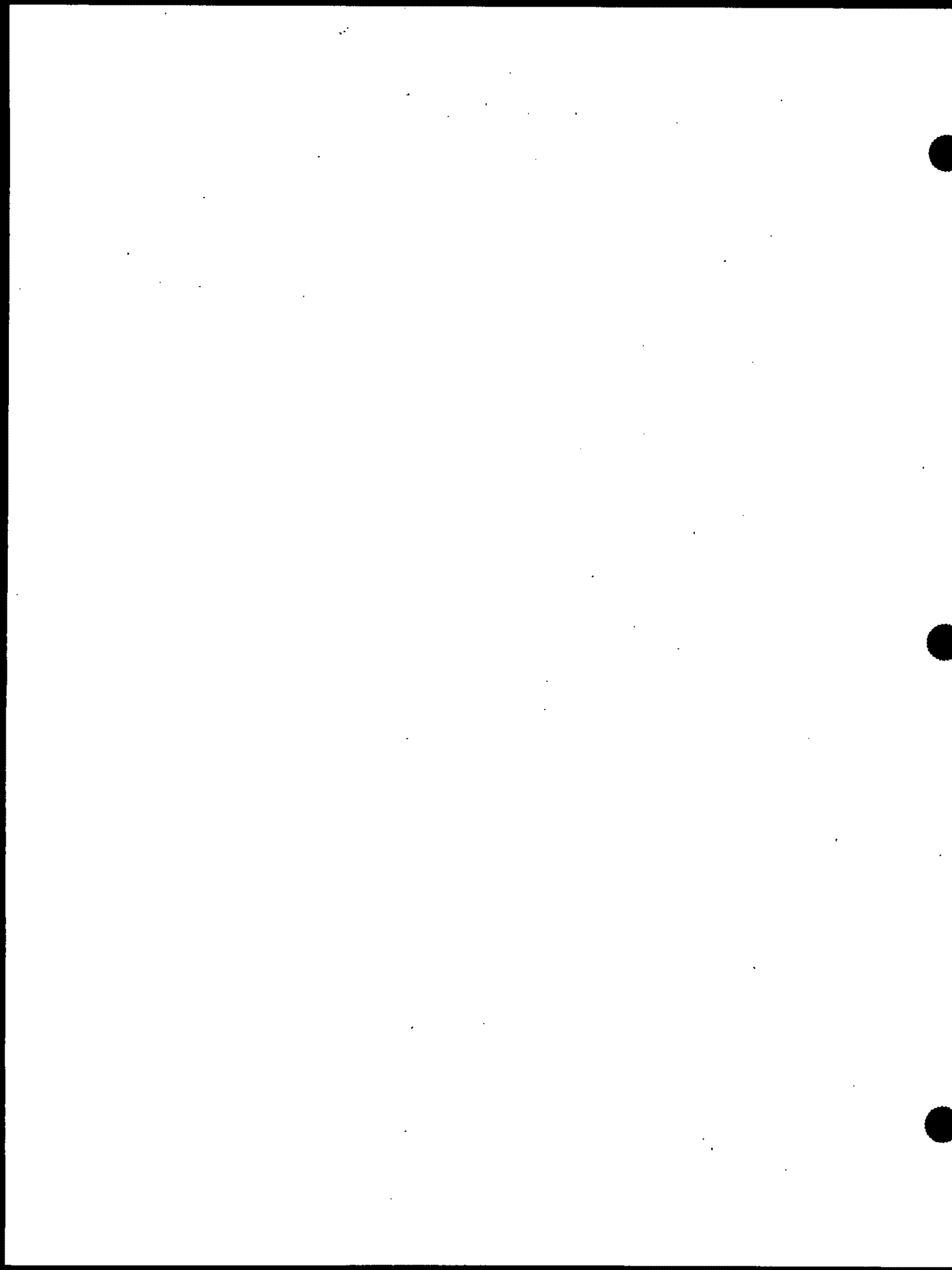
Advice to Reviewers



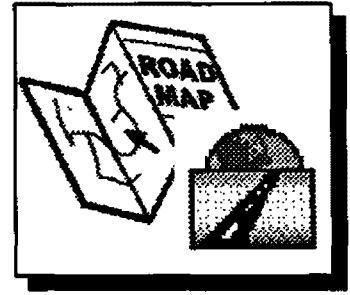


Alternatives

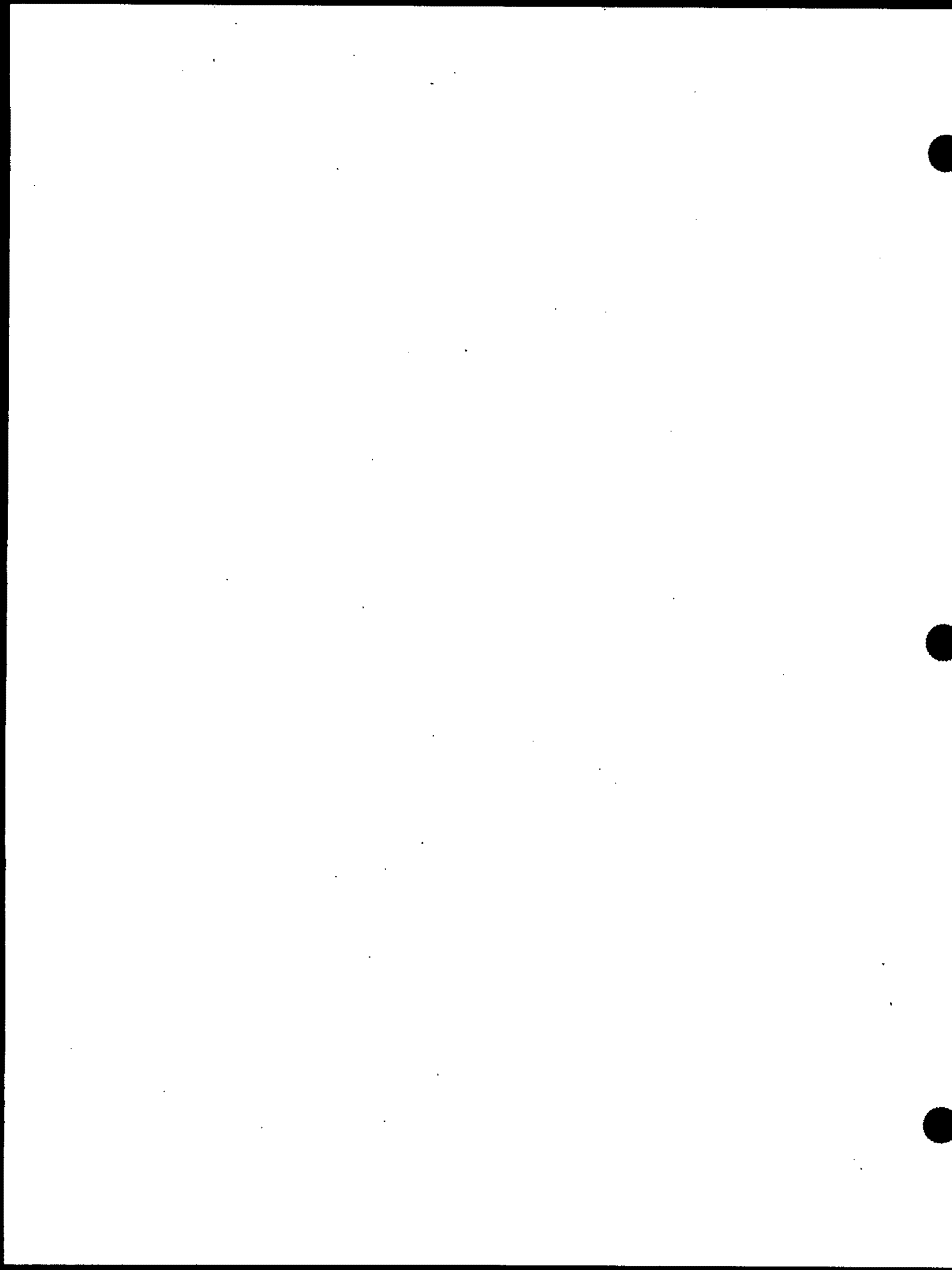
- No Action
- Alternative Sites
- Alternative Designs
- Alternative Controls
- Structural vs Non-structural
- Reallocation of Social Costs & Benefits



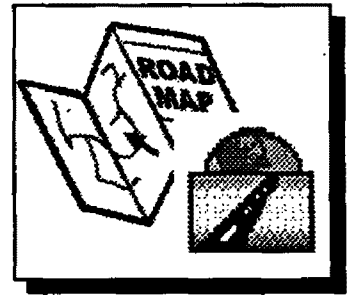
Road Map for Purpose and Need and Alternatives Review (1)



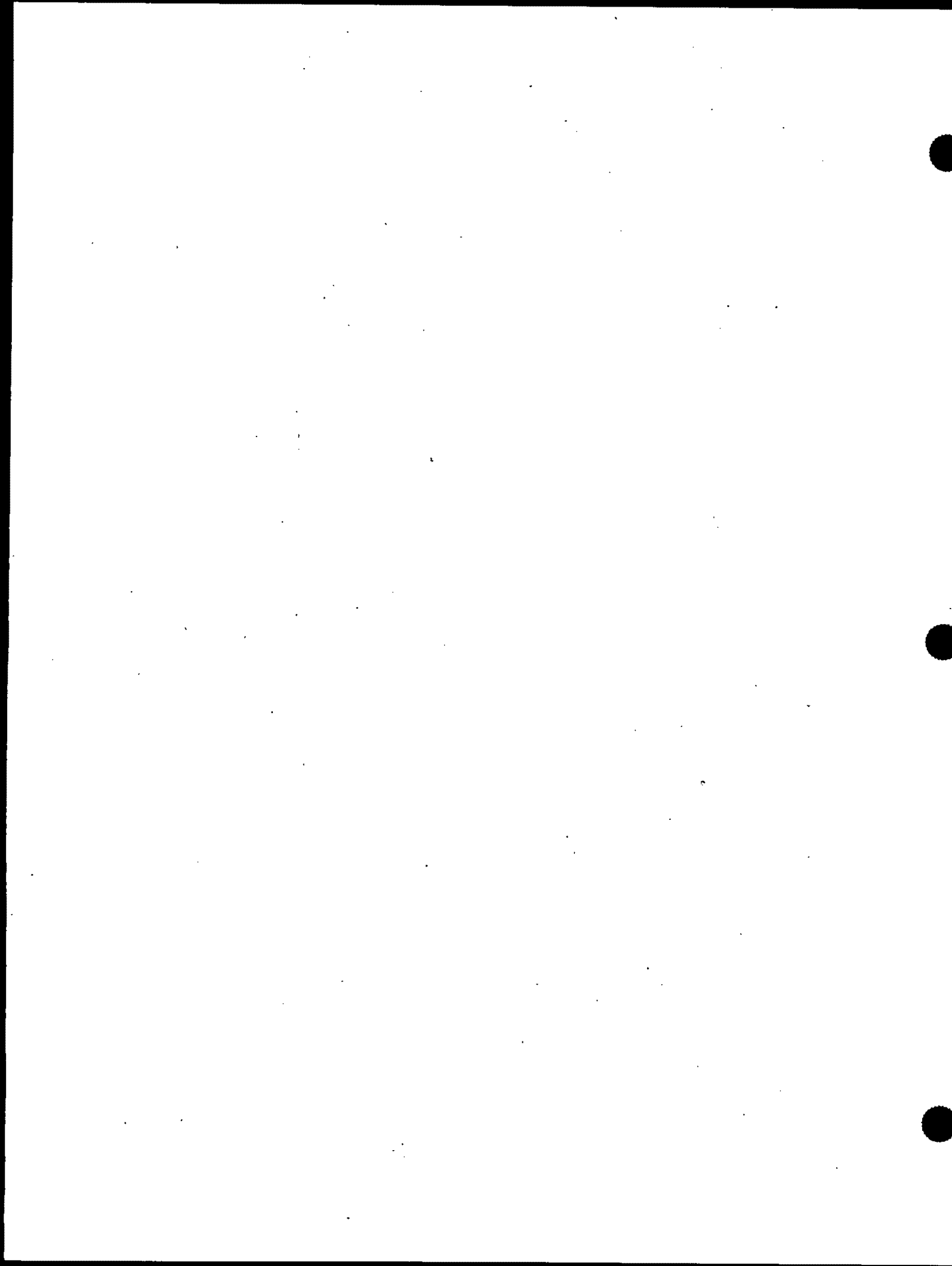
- Describes the purpose and need of the proposed project
- Demonstrates how purpose and need would be met by the proposed project
- Adequately describes the project
 - Maps project site, surrounding land use, and natural features
 - Who and what would benefit; who and what would be affected
 - Phases; site preparation, construction, operation, and closure
 - Time frames, including when project begins and ends



Road Map for Purpose and Need and Alternatives Review (2)

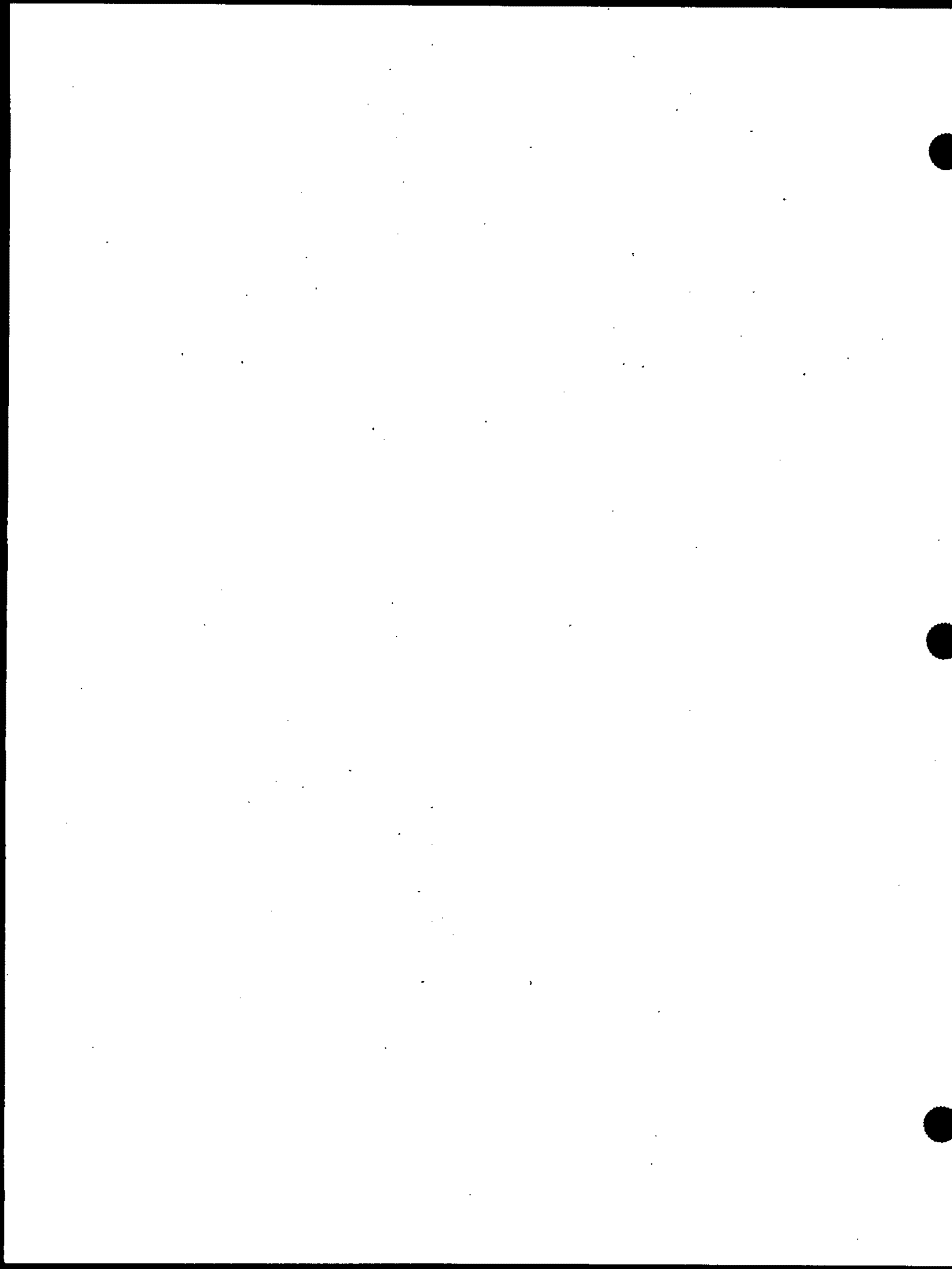


-
- Considers the full range of alternatives to meet purpose and need
 - No action
 - Alternative sites, designs, controls
 - Structural vs non-structural
 - Reallocation of social costs and benefits
 - Reasonable, feasible
 - Reflective of the range of choices
 - Meet the purpose and need of the proposed project
 - Preferred alternative satisfies purpose and need better than alternatives with less environmental impact



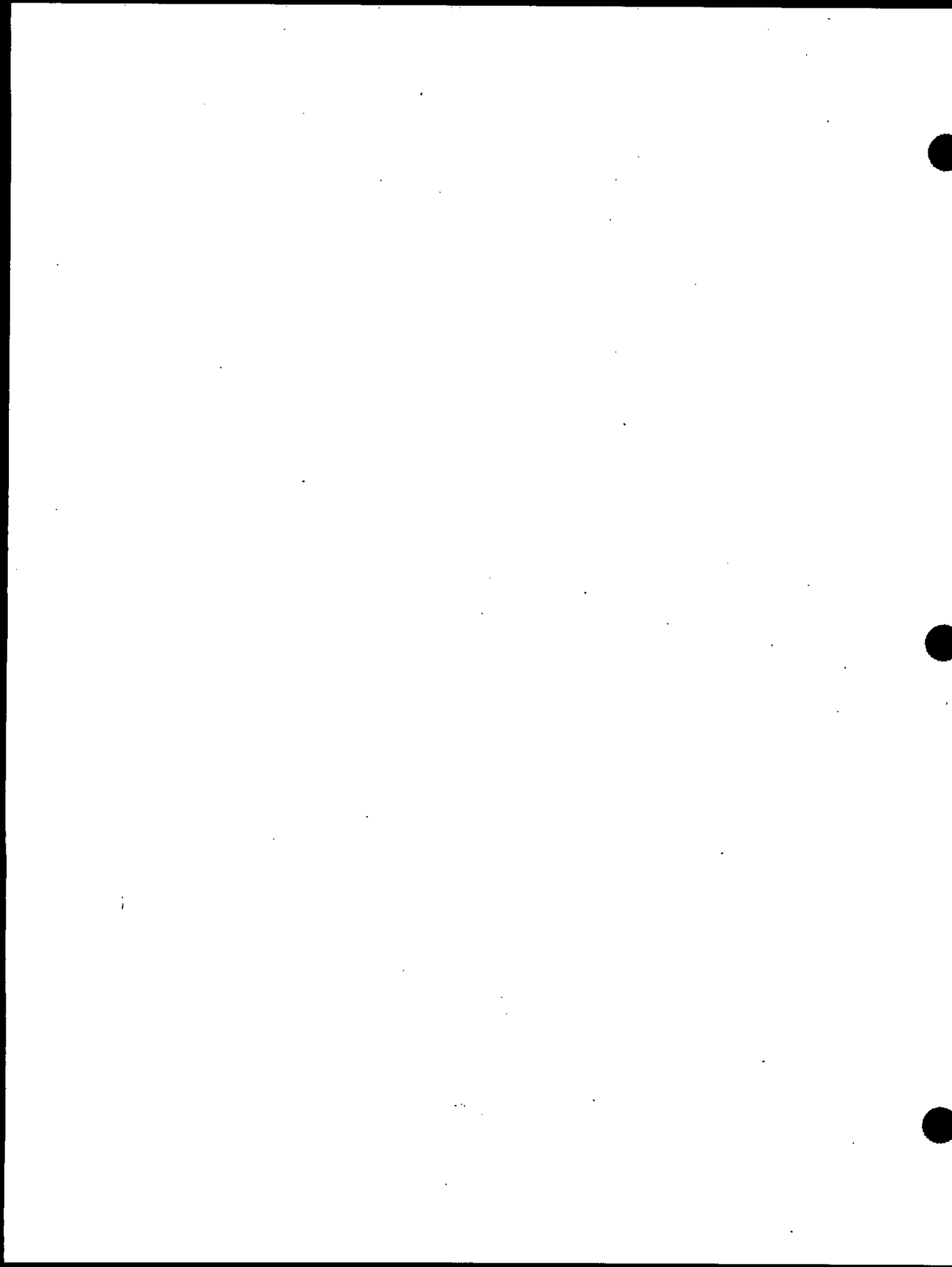
Environment Types

Natural	Human (Socioeconomic)
<ul style="list-style-type: none"> • Air Resources • Water Resources <ul style="list-style-type: none"> -Surface Water -Ground Water • Soils and Geology • Biological Resources <ul style="list-style-type: none"> -Wildlife and Vegetation -Community and Habitat Characterization -Ecologically Significant Factors 	<ul style="list-style-type: none"> • Land Use • Population Statistics and Housing • Community Services • Economic Activity and Employment • Transportation • Cultural or Historical Resources • Health and Safety • Aesthetics



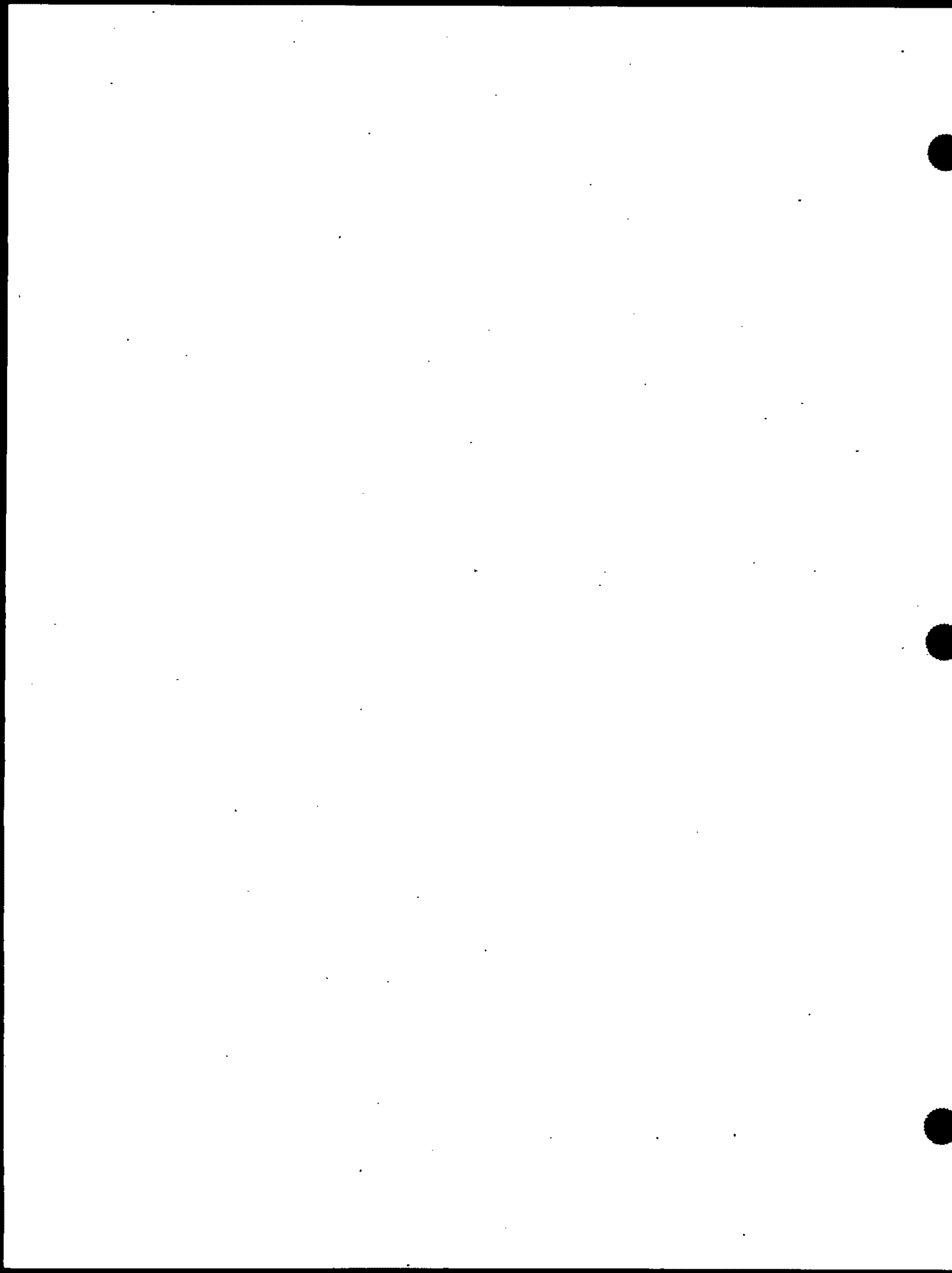
Kinds of Data

- Meteorological Data
- Ambient Air Quality Data
- Data On Sources of Air Pollution
- Water Quality and Flow Data
- Data on Sources of Water Pollution
- Data On Surface Topography and Soils
- Information On Biological Communities
- Data On Waste Management and Pollution Prevention
- Socioeconomic Data (including land use, population and housing, economic activity, etc.)

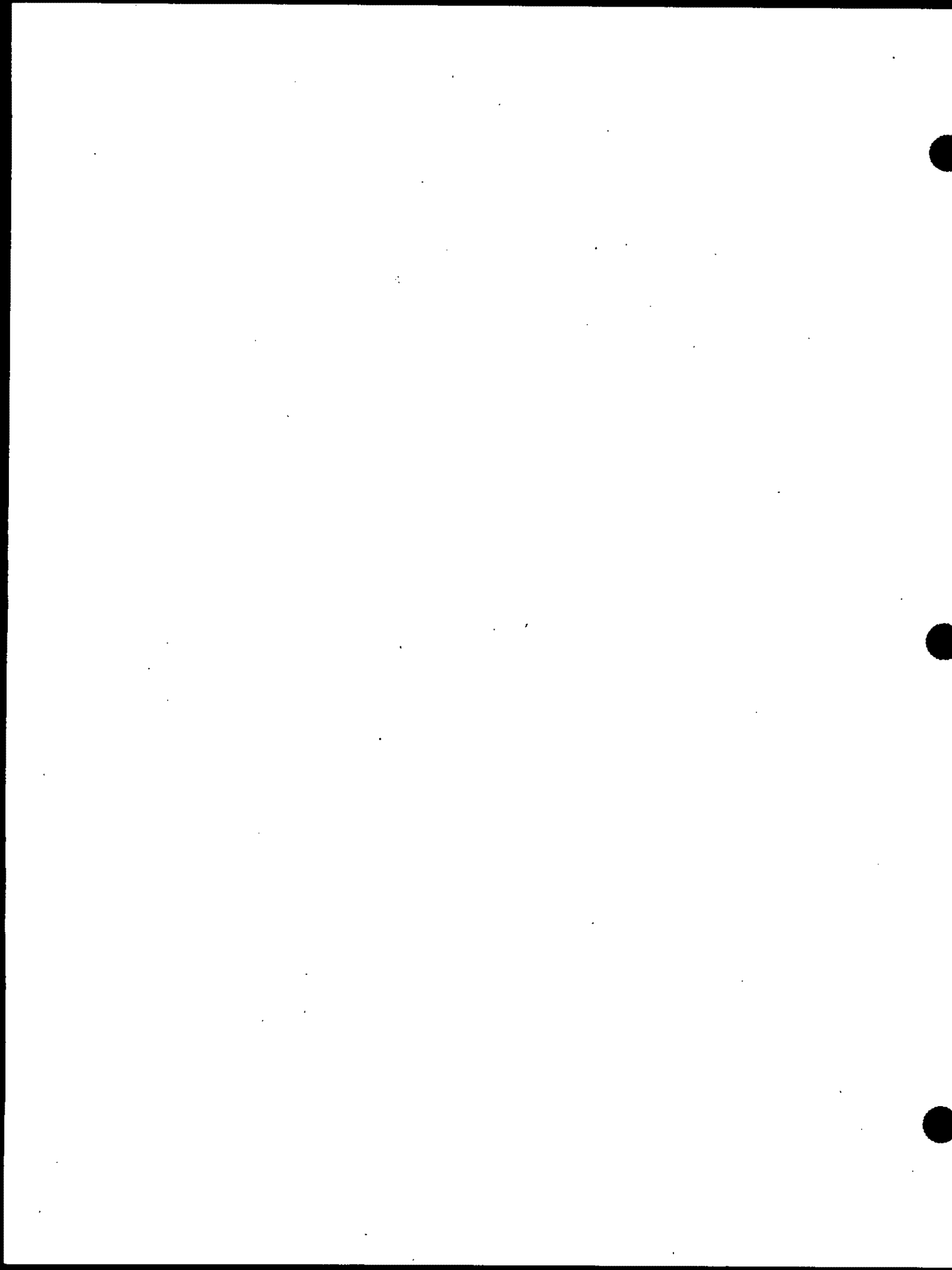


Sources of Data

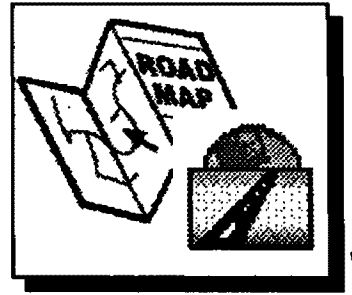
- Existing In-house Literature
- Relevant Government Agencies
- Relevant Research Organizations
- Field Surveys
- Monitoring Programs
- Topographic Maps
- Land Use Maps
- Geographic Information Systems
- Local Specialists



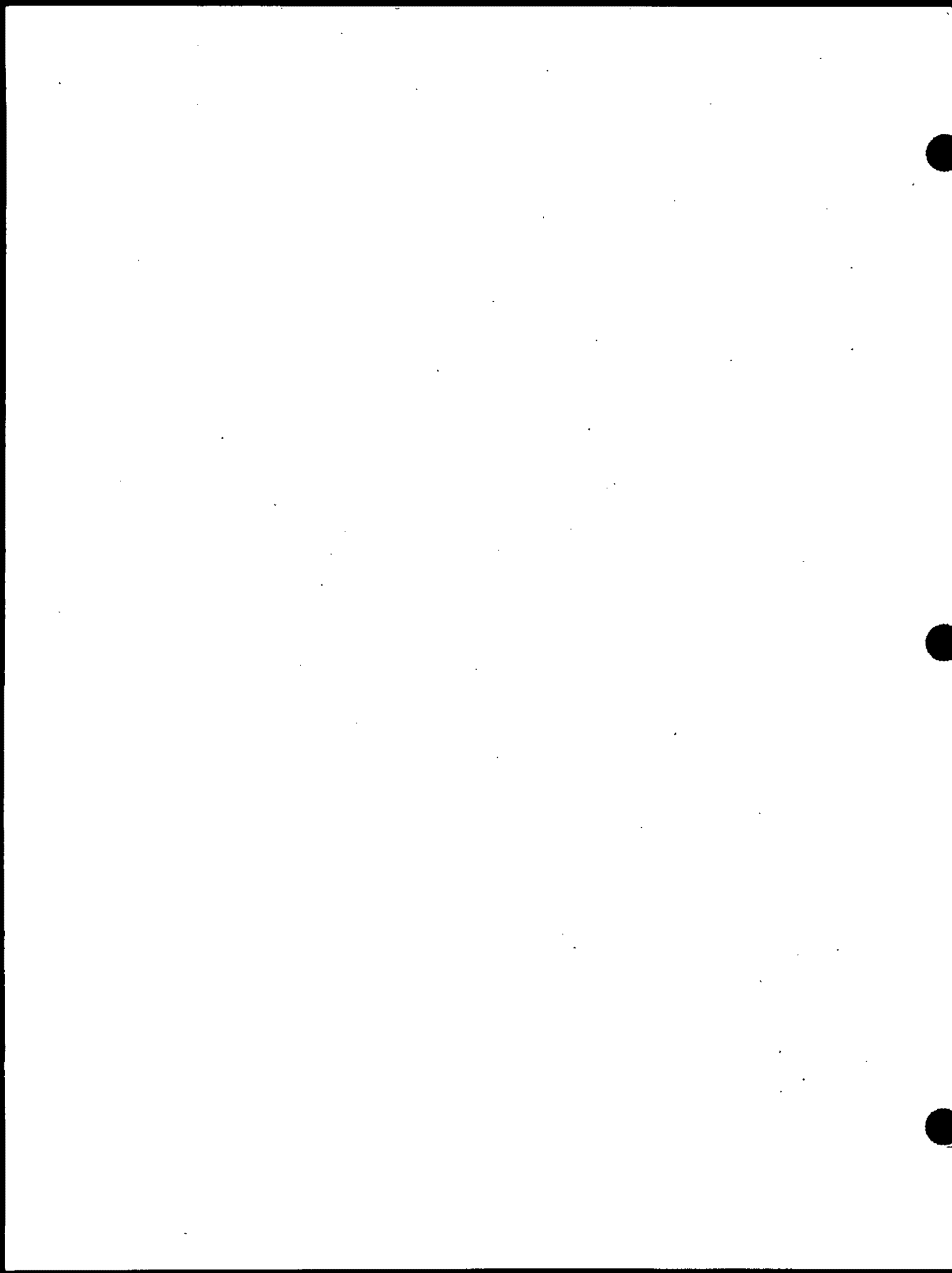




Road Map for Environmental Setting Review



- All relevant types of natural and human environmental issues are addressed
- Affected area or community is adequately and accurately defined
- Environmental impact area and surrounding features are adequately mapped
- Baseline is established to measure environmental impact
- Appropriate information and data are documented and used appropriately
- Information is linked back to project description, purpose and need, alternatives
- Levels of detail are appropriate to significance
- Information and data are of acceptable quality and relevance
- Section is internally consistent



Types of Environmental Impacts

- **Primary Impact**

A primary impact occurs at the same time and place as the action. It is usually associated with construction, operation, or maintenance of a facility or activity and is generally obvious and quantifiable.

- **Secondary Impact**

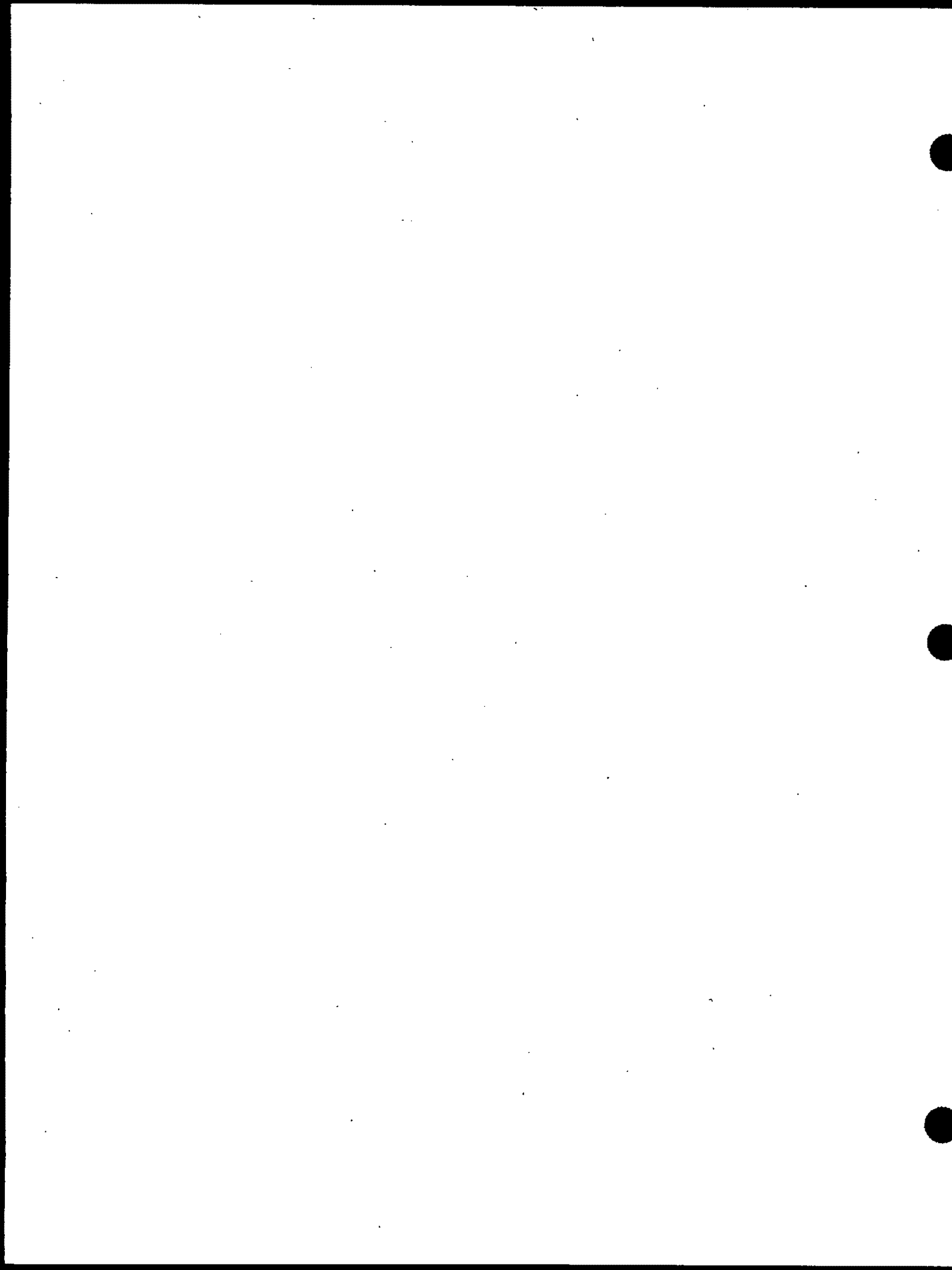
Secondary impacts occur later in time, or at a different place from the initial action. These impacts are indirect or induced changes in the environment, population, economic growth, and land use.

- **Cumulative Impacts**

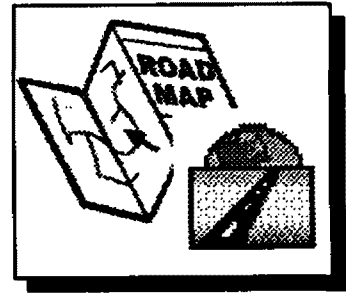
Cumulative impacts result from the incremental impact of the proposed action on a common resource when added to other impacts from past, present, and reasonably foreseeable future actions. These include the collective effects of individually minor actions over a period of time.



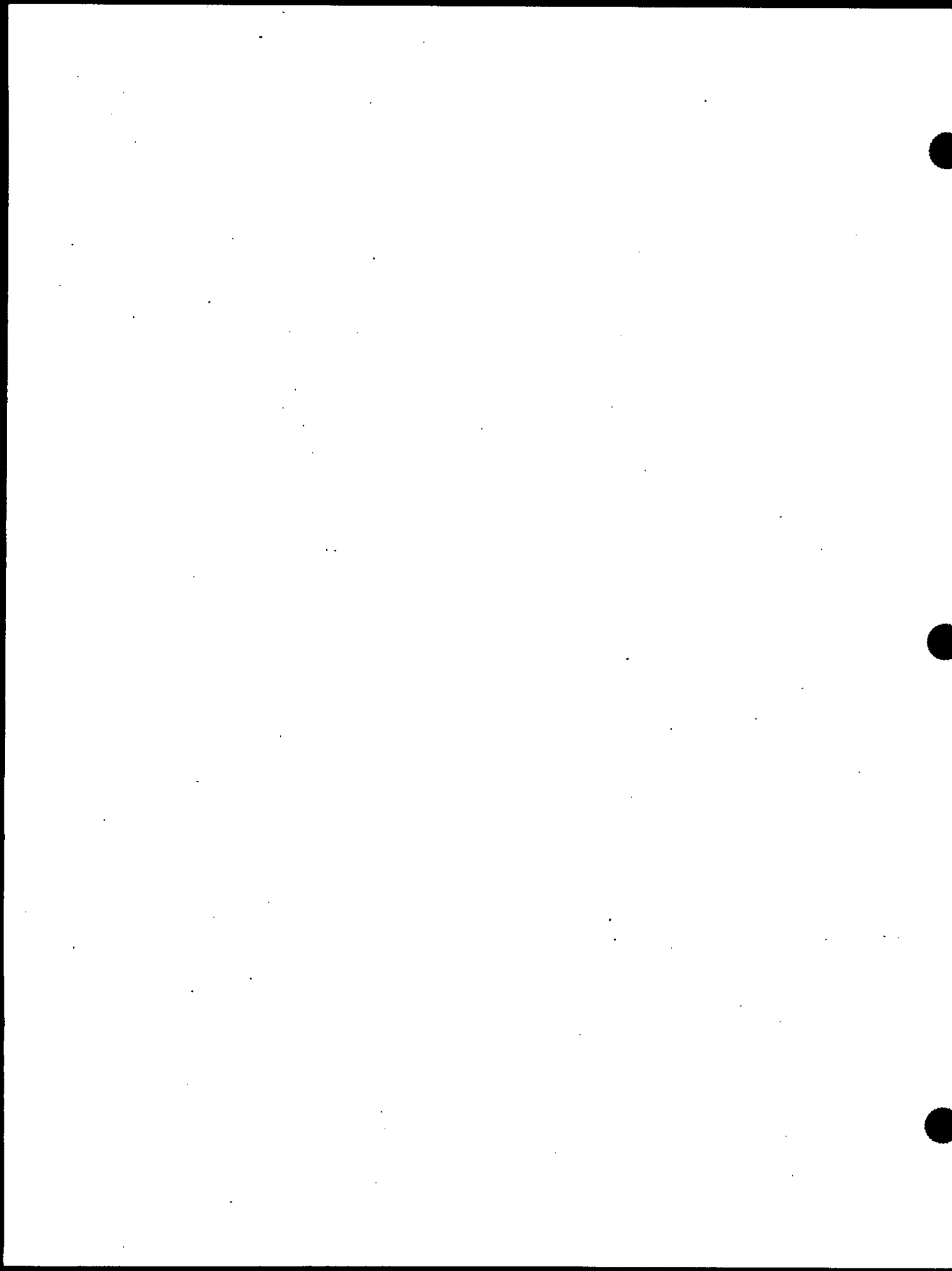
Examples of Environmental Impacts



Road Map for Environmental Impact Review

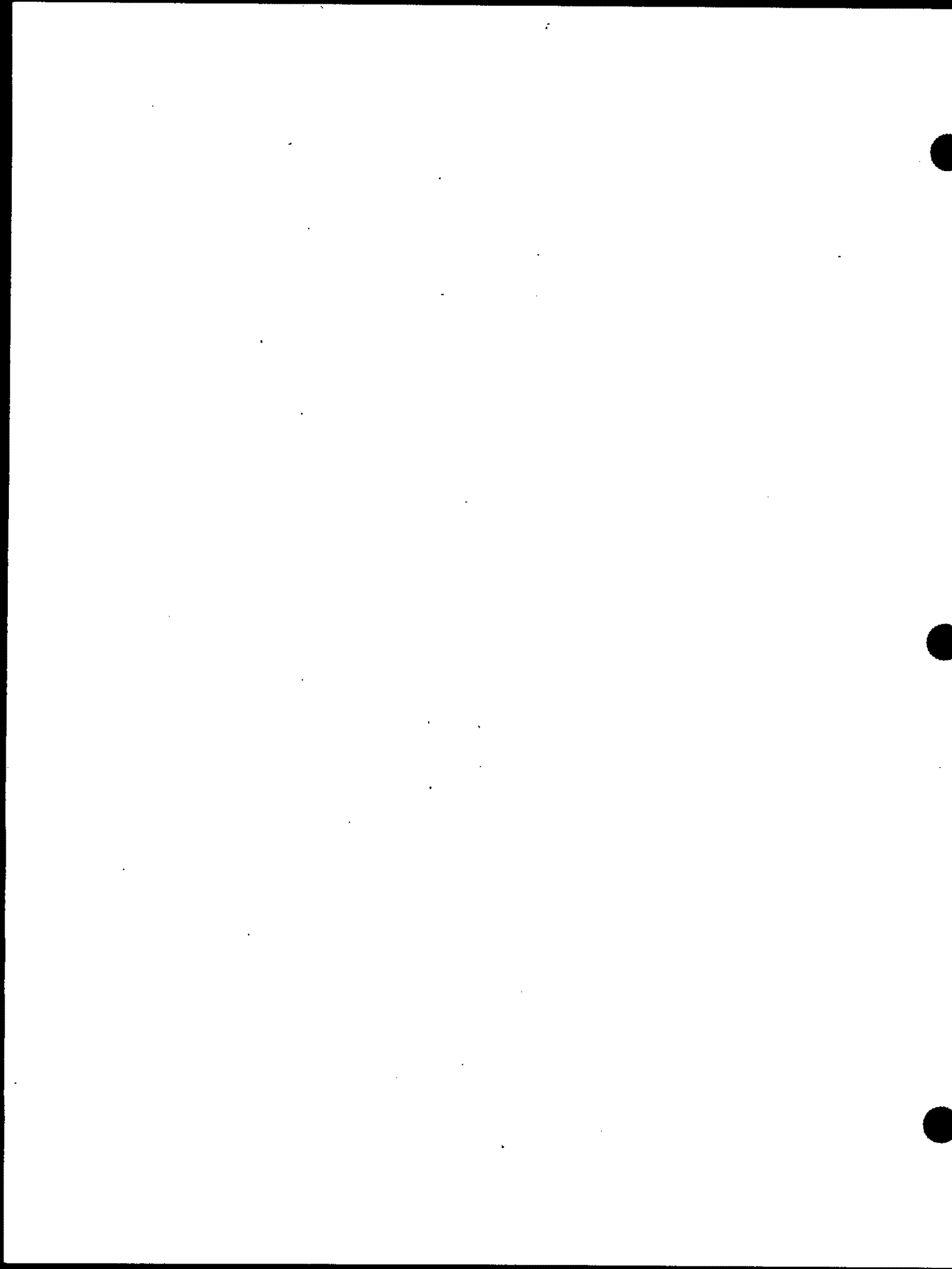


- All natural and human (socioeconomic) environmental impacts are identified
- Types of impacts include primary, secondary, and cumulative
- Detail on impacts is balanced among reasonable and feasible alternatives
- Both beneficial and adverse environmental impacts are identified
- Potential environmental impacts are identified for all phases of the proposed project
- Models, experts, and criteria accurately used to project the significance of impacts are valid for appropriate circumstances
- Data, information and key assumptions are representative, accurate, and current
- Appropriate criteria are used to assess significance

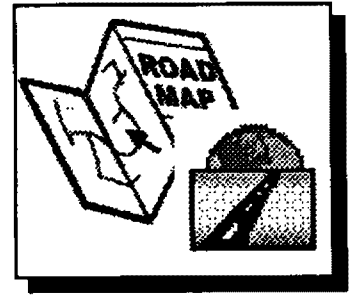


Hierarchy of Mitigation Types

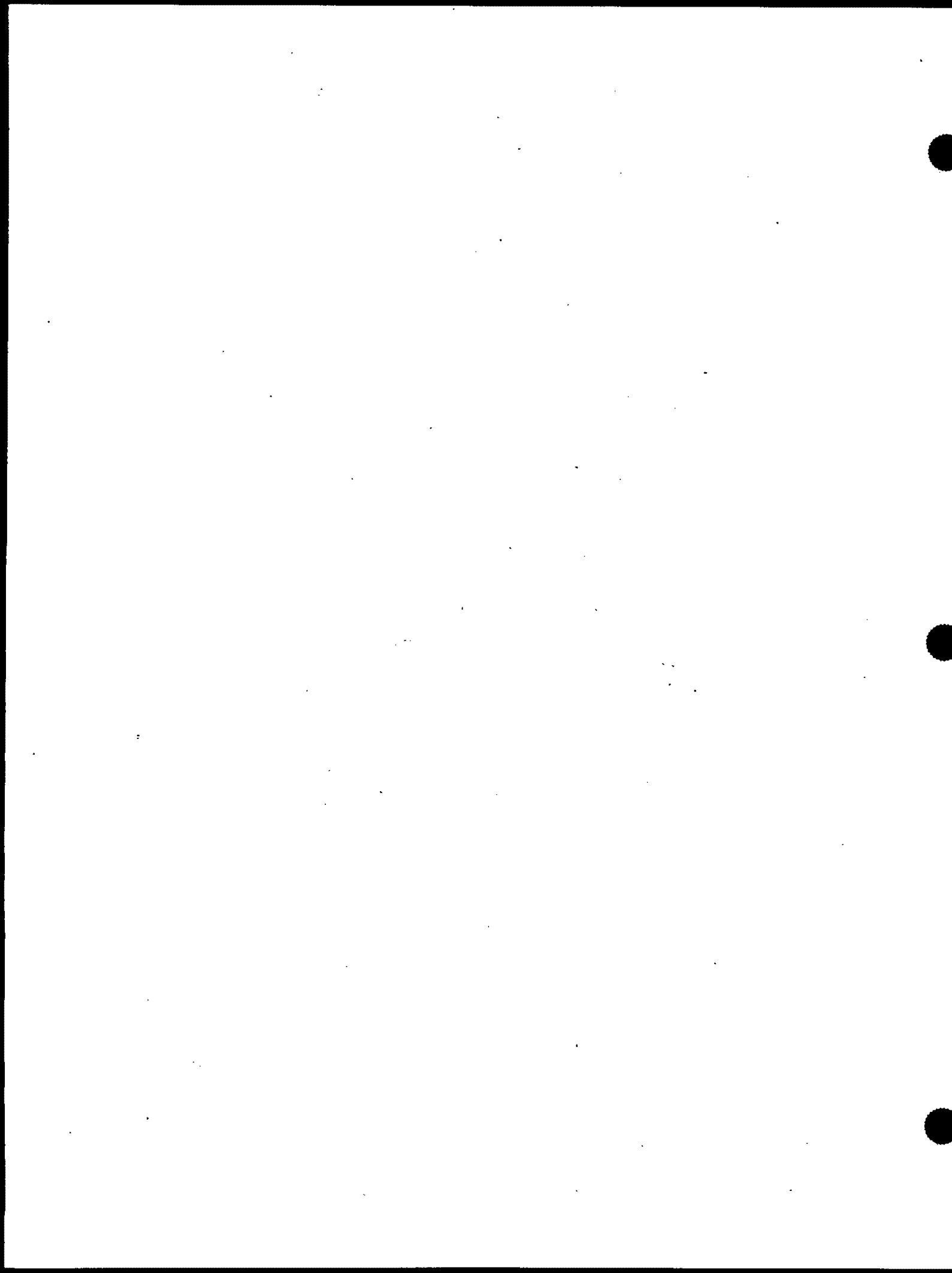
- **Avoid or prevent an environmental impact**
- **Minimize an environmental impact**
- **Reduce or eliminate an environmental impact over time**
- **Correct an environmental impact**
- **Compensate for an environmental impact**



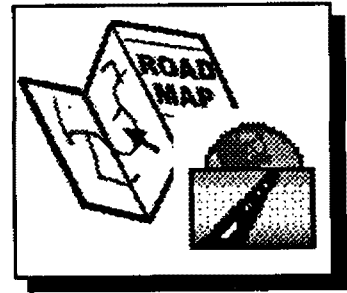
Road Map for Mitigation Review (1)



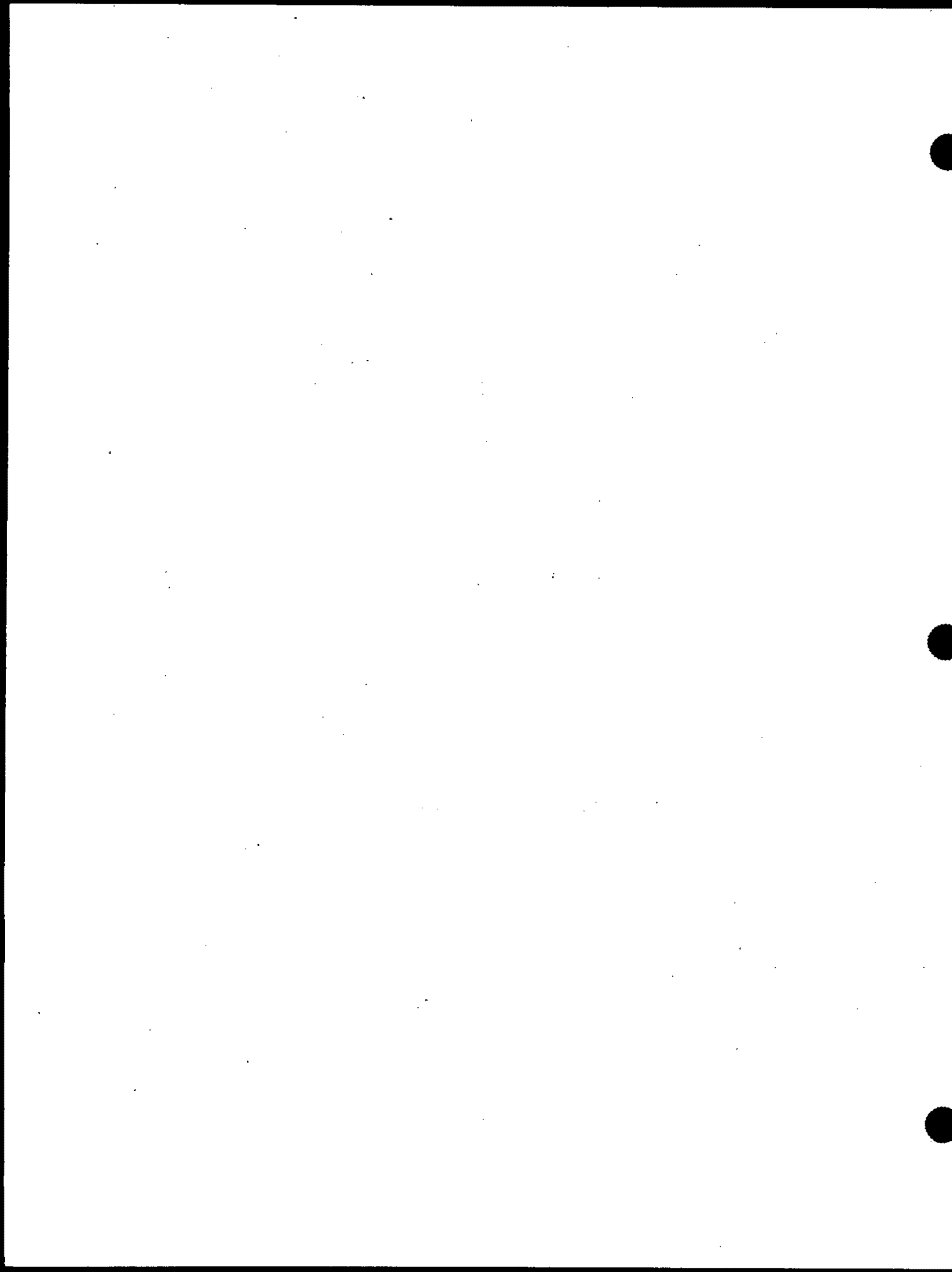
- Specific mitigation measures are proposed
- All significant adverse environmental impacts are addressed by the mitigation plan
- Measures are proposed for:
 - All types of environmental impacts
 - All phases of the project
 - All environment types
- Preferred mitigation measures at the top of the mitigation type hierarchy are considered
- Mitigation measures are described in sufficient detail relative to the significance of impact



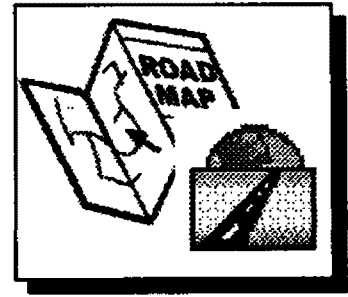
Road Map for Mitigation Review (2)



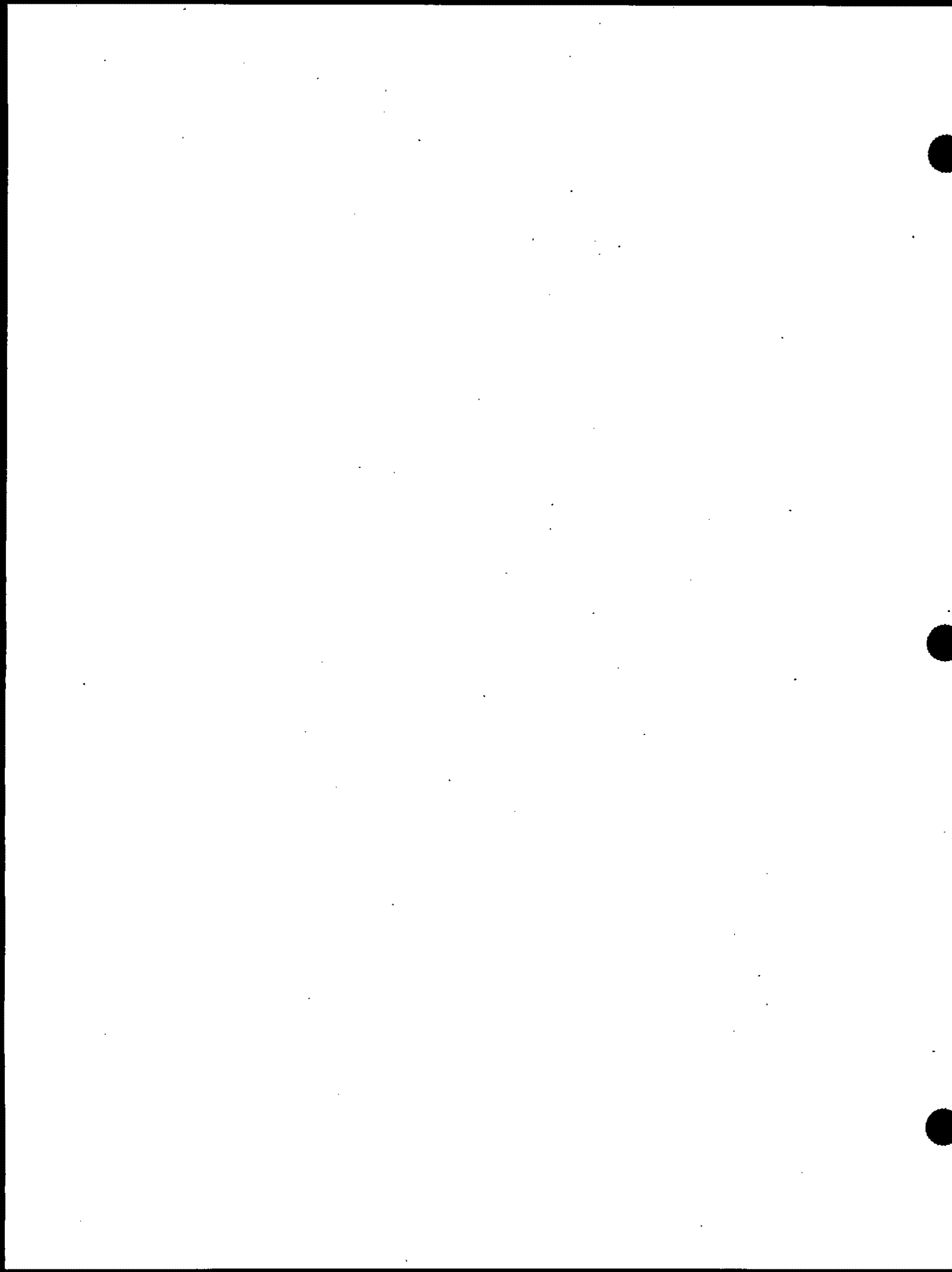
- Mitigation measures are:
 - Technically and financially feasible with adequate financial and non-financial resources to implement the measures
 - Socially and culturally acceptable
- Implementation plans include schedules and interim milestones and timing is consistent with other factors presented in the assessment of impact
- Responsible parties are identified and committed to implementation



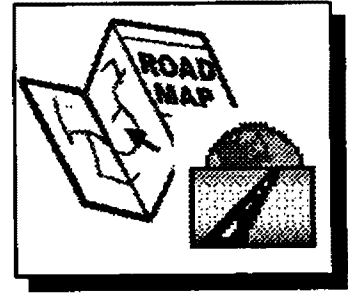
Road Map for Draft Environmental Impact Assessment Review



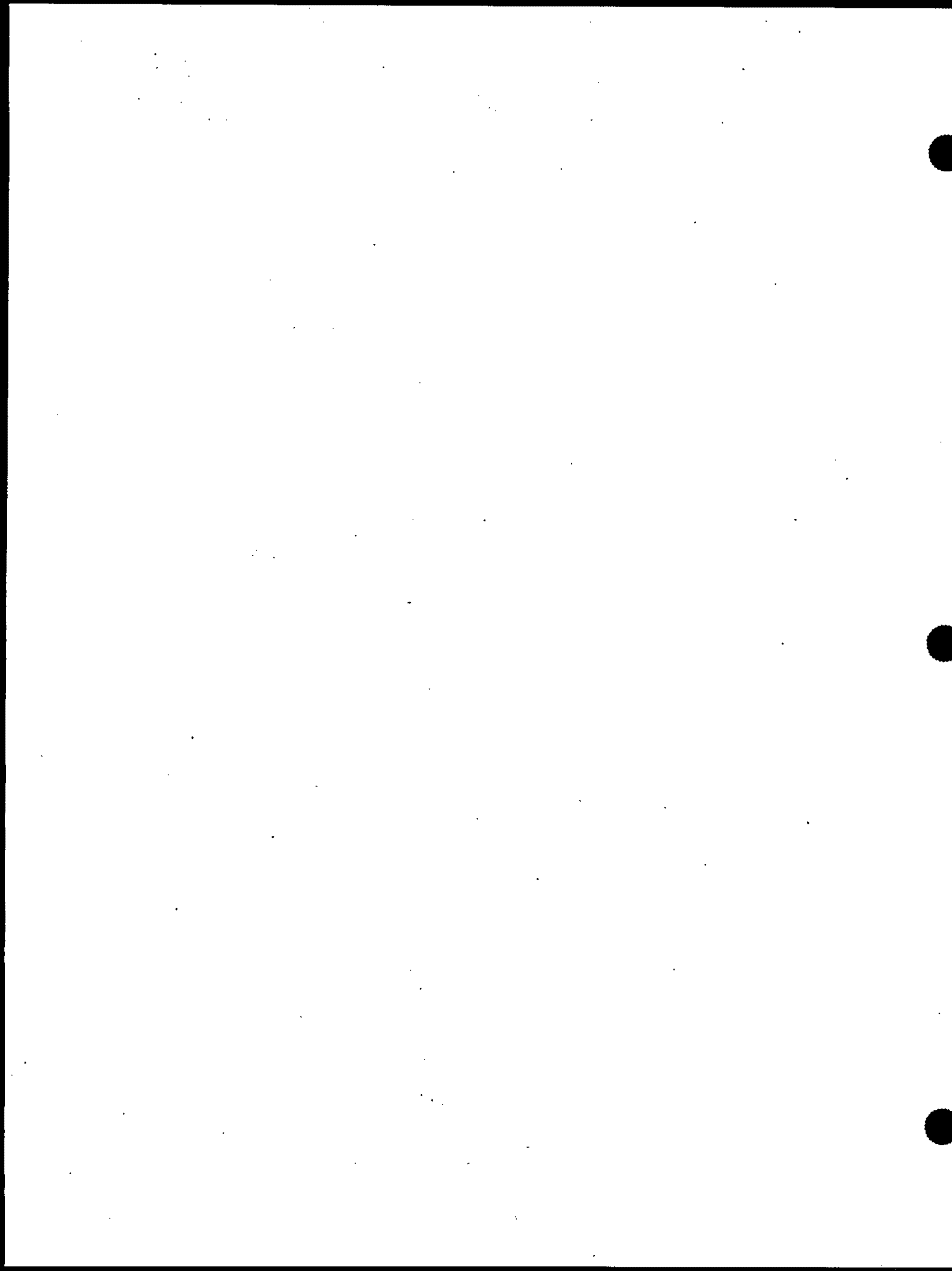
- Establish a management approach:
 - Establish lead reviewer
 - Assign roles
 - Establish a schedule
 - Conduct review
- Consolidate reviewers' comments:
 - Identify most significant issues
 - Determine the significance of each comment
 - Establish common threads
 - Resolve any discrepancies
- Draft a comment letter:
 - Maintain neutrality, objectivity and professionalism
 - Provide clear and concise comments
- Anticipate and Respond to Public Comment



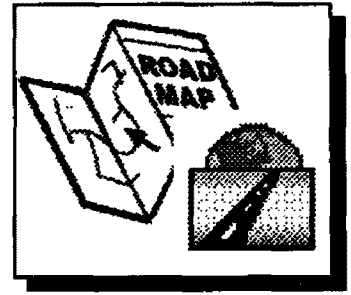
Road Map for the Communication Letter



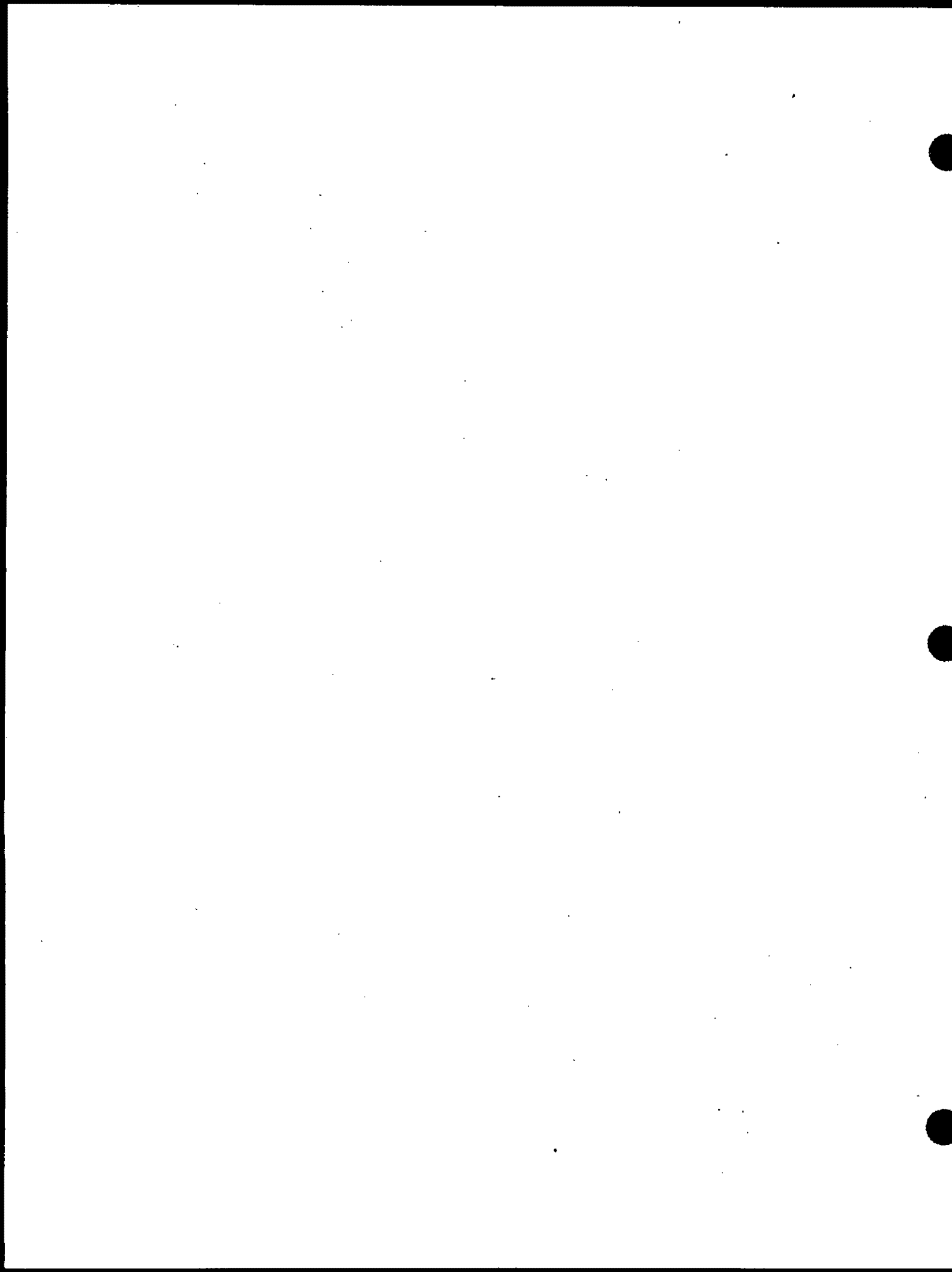
- State bottom line including major recommendations up front and clearly
- Describe proposed project context
- If the purpose and need of the proposed project is in question, develop the link to the environmental concerns
- Distinguish what is mandatory, what is significant
- Provide a description of the substantive and/or procedural concerns
- Demonstrate sensitivity to all stakeholders' interests and the affected community
- Provide recommendations for addressing the concerns



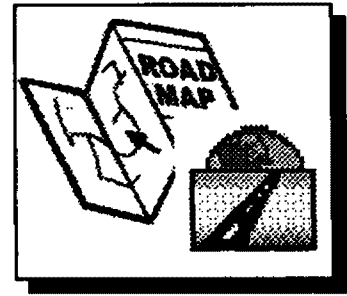
Road Map for Final Environmental Impact Assessment Review



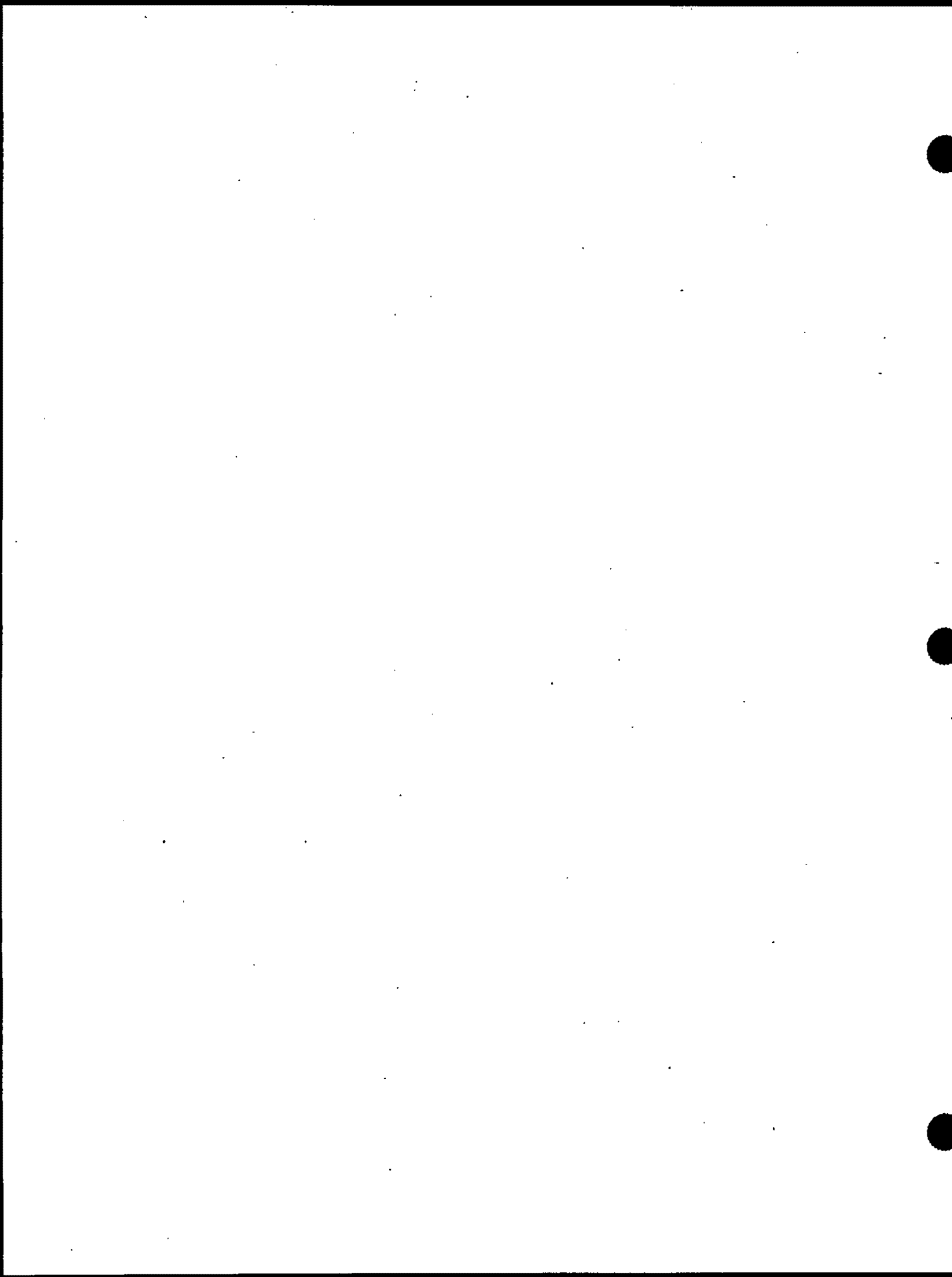
- Establish a management approach
- Determine if basic assumptions and information are the same for draft and final documents
- Assess impacts of any changes on alternatives, impacts and proposed mitigation
- Verify that comments were acknowledged and addressed
- Review the relationship and consistency among responses to individual comments
- Consolidate comments and prepare the final comment letter



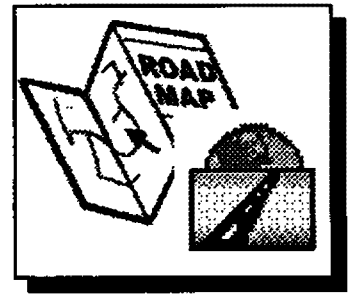
● Road Map for Final ● Environmental Impact ● Assessment Review(2)



- Determine whether responses change fundamental reviewer findings:
 - Acceptability of environmental impact
 - Needed mitigation
 - Adequacy of environmental impact assessment document and process
 - Who needs to be involved and consulted
- Decide actions to increase chance of correcting remaining deficiencies
- Anticipate use by decision maker
- Anticipate use to establish mitigation requirements
- If appropriate, prepare final comment letter



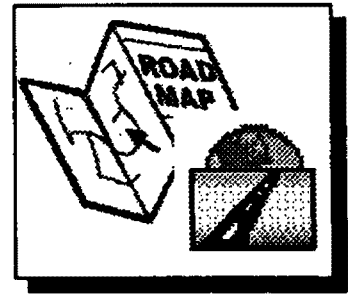
Road Map for Record of Decision Preparation



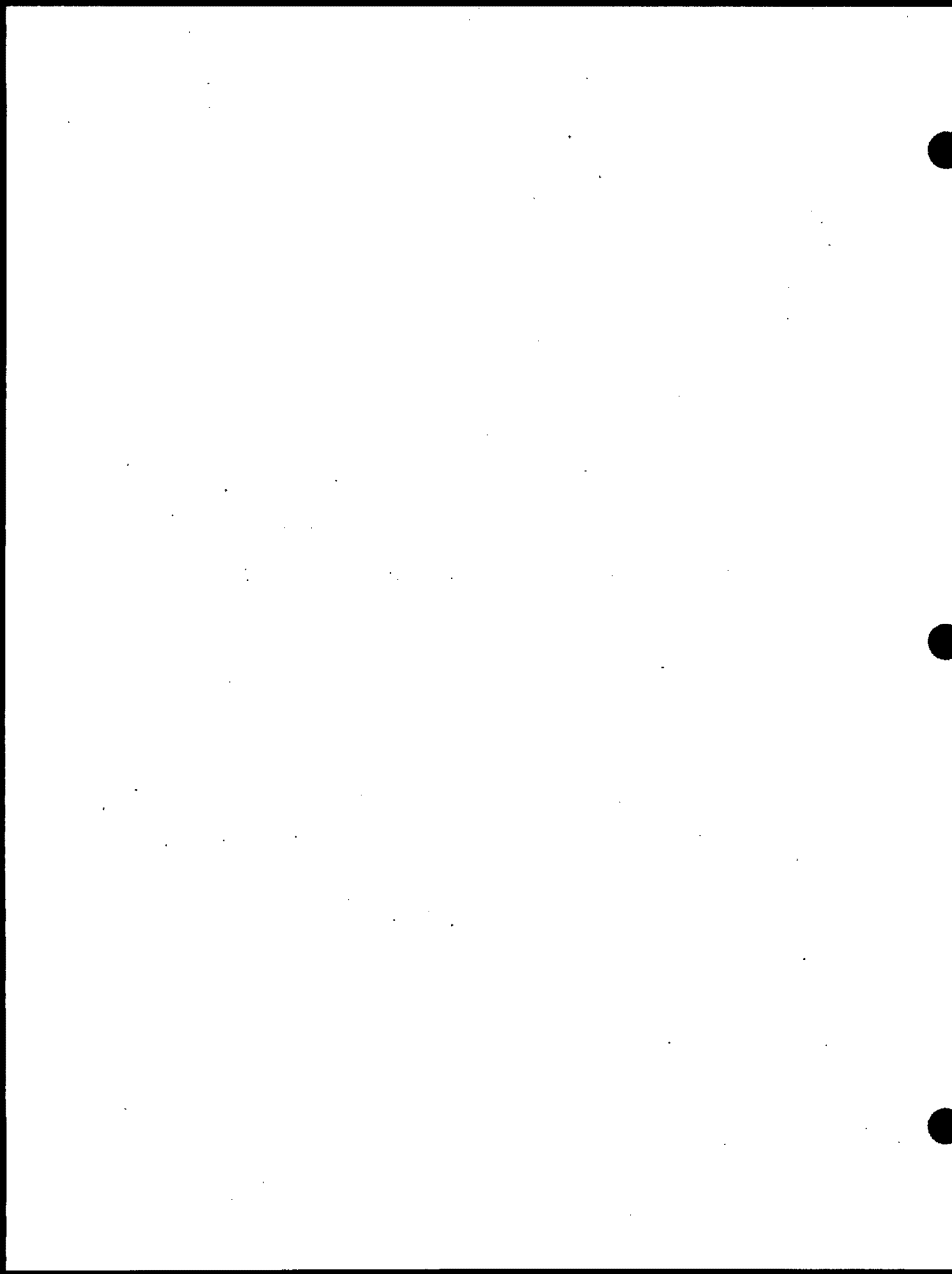
- Re-state the purpose and need
- Support preferred alternative and justify
 - Meets purpose and need
 - Either preferred environmentally or meets purpose and need better than other alternatives
 - Meets legal requirements
- Demonstrate that all potentially adverse environmental impacts from the selected alternative were fully considered
- Demonstrate that the benefits of proposed project outweigh adverse environmental impacts
- Demonstrate that implementation of the project will be environmentally acceptable
- Address mitigation and continuing responsibilities



Road Map for Mitigation Plan Preparation

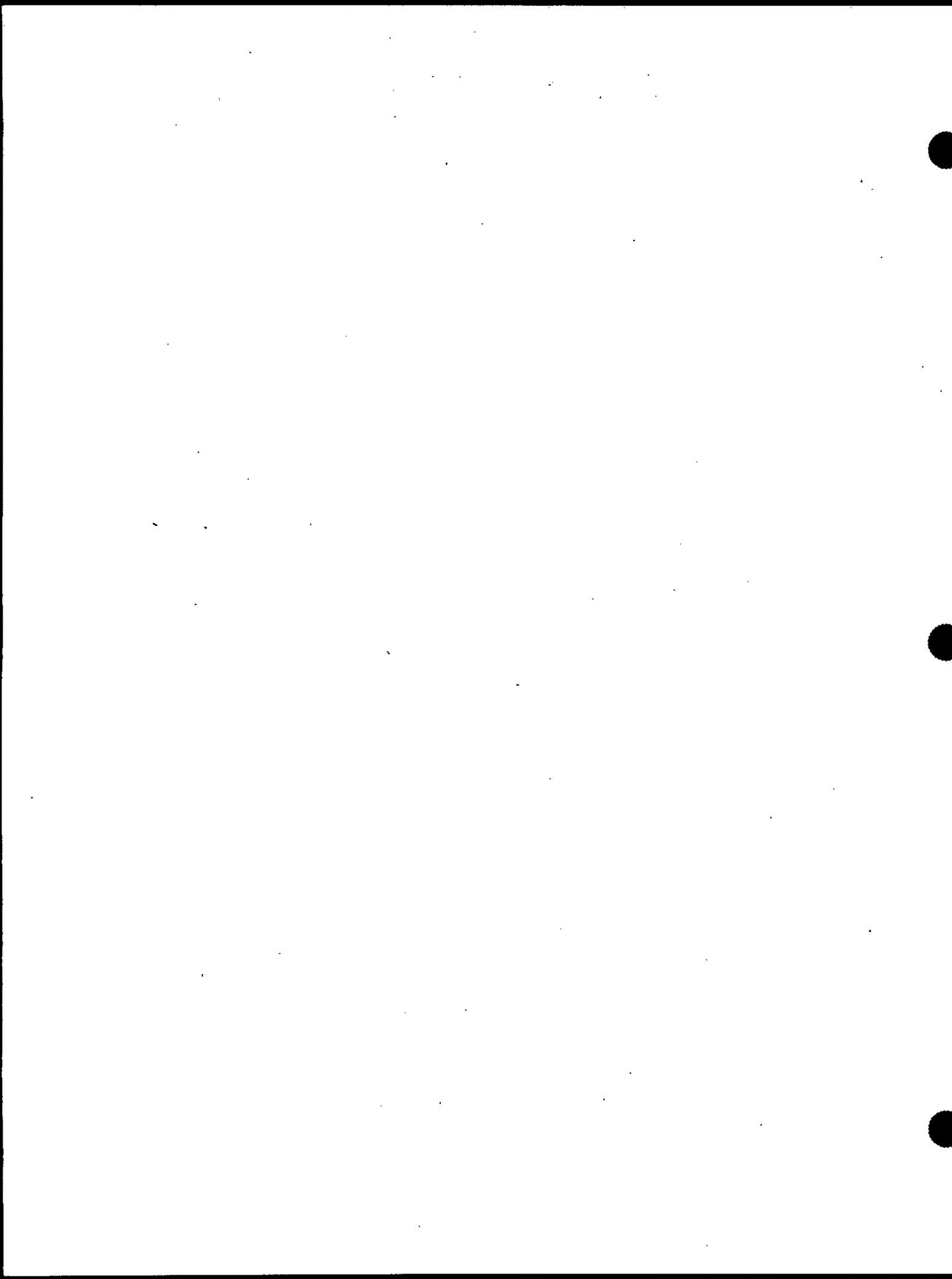


- Proposes specific mitigation measures:
 - All (significant) adverse impacts
 - All primary, secondary, cumulative adverse environmental impacts
 - All phases of the project
 - All relevant environment types (natural and human)
- Where appropriate, proposes mitigation measures most desirable in hierarchy
- Provides sufficient detail relative to the significance of each environmental impact
- Includes technically and financially feasible measures
 - Financial/other resources
 - Socially and culturally acceptable
- Includes implementation plans, schedules and interim milestones, and timing consistent with other factors
- Identifies responsible parties committed to implement



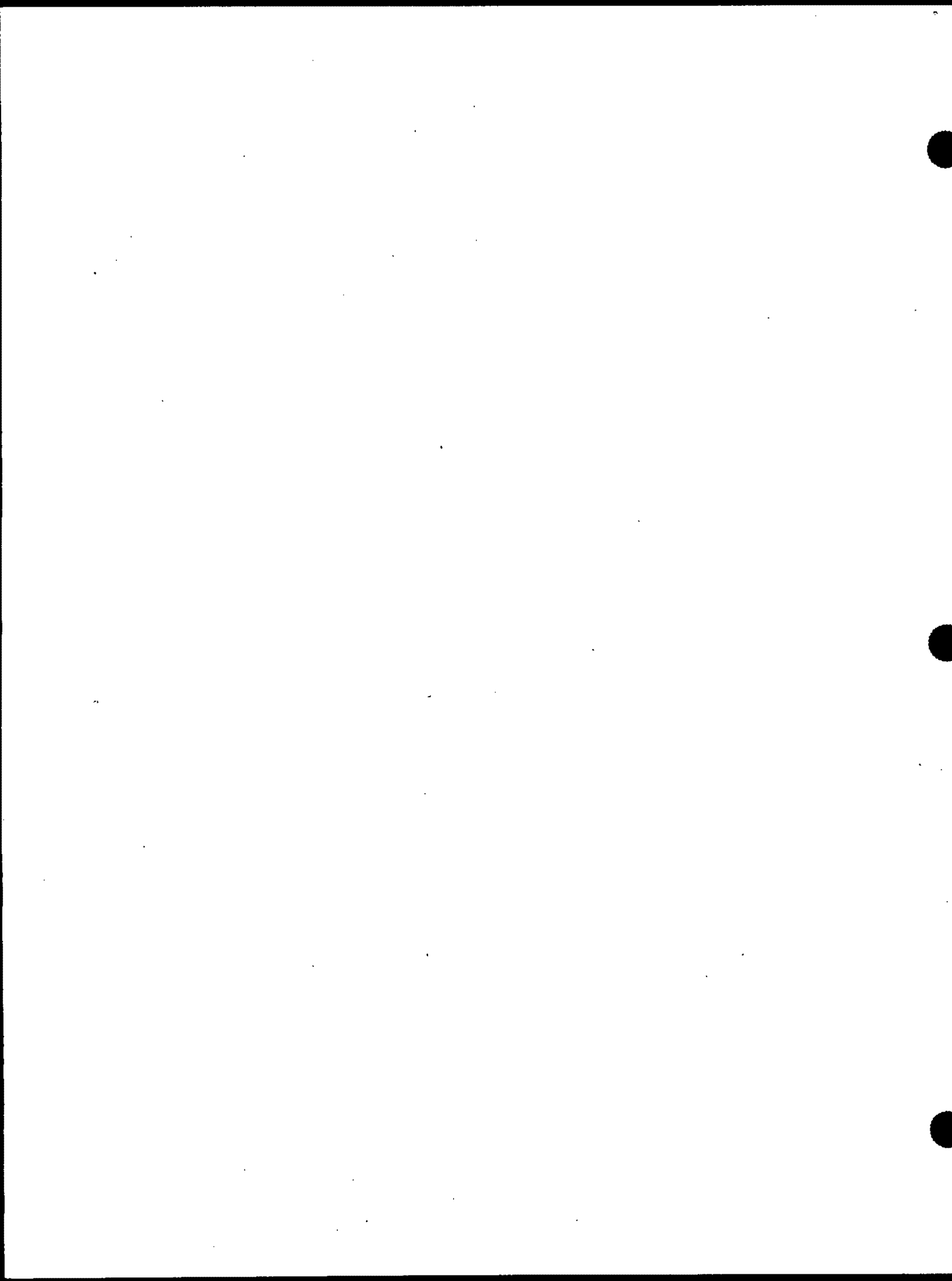
Resources for a Reviewer

- Colleagues
- Student Texts
- Resource Manual
- CD-ROM - "Environmental Assessment Resource Guide"
- CD-ROM - "Diamond Chuitna Coal Mining Project - Case Study"
- Example Environmental Impact Assessments
- Internet Sites
- International Organizations, and Academic, Government and other Non-Governmental Institutions



Country-Specific Contexts

- Legal
- Institutional
- Organizational
- Personal



Reviewer's Code

I am a reviewer of proposed projects, policies, or programs.

I facilitate informed decision-making and follow up to help ensure that all opportunities for avoiding, minimizing, preventing, eliminating, reducing, restoring, and/or compensating for adverse environmental and socioeconomic impacts and enhancing the environment are pursued.

I am a reviewer of environmental impact assessment documents to ensure they are complete, accurate, and identify the significant environmental, social and economic issues.

I maintain the integrity of the environmental impact assessment process by ensuring that the requirements of the environmental impact assessment process have been met, and that the perspectives of affected stakeholders and interested parties have been considered.

I bring to my job professionalism, objectivity, and a systematic, interdisciplinary approach that keeps me focused on doing my job despite the strongly held views of those involved with the project, policy or program.

My job requires me to be resourceful in drawing upon multiple sources of information and disciplines including knowing how to find relevant documents, networks of experts, and background information on the affected communities and environment.



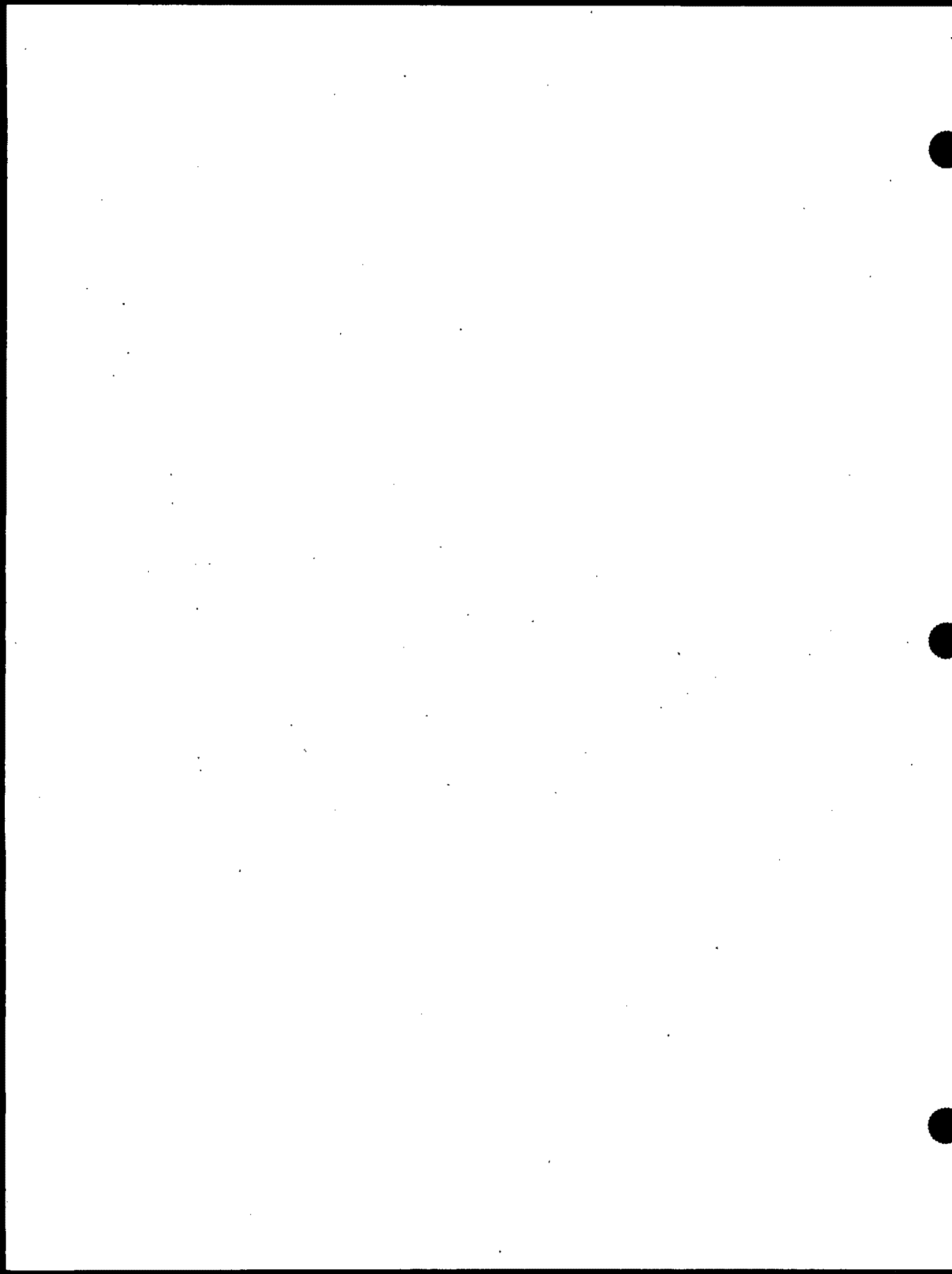
APPENDIX C

Handouts

The following handouts need to be specifically prepared for each course:

- **Participants List**
- **Certificates of Completion**

In addition, the Supplemental Table of Contents for Case Studies and Selected Public Comments for Case Studies have not been included in this Appendix. They are included in Appendix A or need to be specifically developed if new case studies are substituted.



[illegible]

Principles for Environmental Impact Assessment Review

List of Course Participants

[illegible]

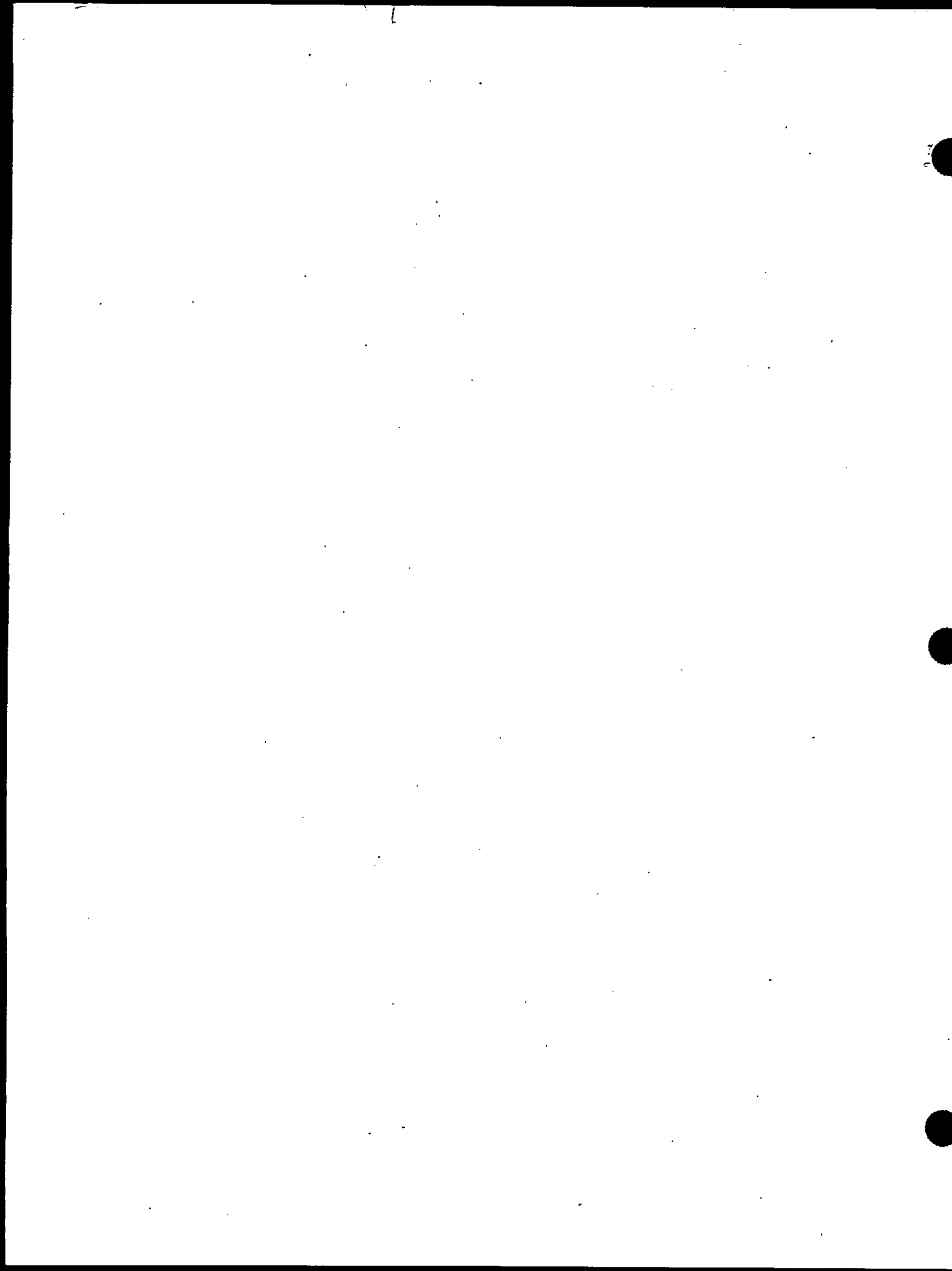
Principles for Environmental Impact Assessment Review

List of Course Participants

Facilitators			
Observers			

Abbreviations (e.g., Agency acronyms, addresses):

•
•
•
•



Principles of Environmental Impact Assessment Review Training Agenda

<u>Day 1</u>	
Registration	8:30
Session 1: Welcome and Introduction	9:10
Session 2: Reviewer's Role <i>(Break included)</i>	10:00
Lunch	12:00
Session 3: Overall Review and Scoping <i>(Break included)</i>	1:00
Session 4: Review of Purpose and Need and Alternatives	3:05
Adjourn	5:00
<u>Day 2</u>	
Session 5: Review of Description of the Environmental Setting <i>(Break included)</i>	8:30 10:45
Session 6: Review of Potential Environmental Impacts <i>(Lunch included)</i>	1:20
Report Out	2:20
Session 7: Review of Proposed Mitigation <i>(Break included)</i>	4:00
Session 8: Introduction to Review of the Draft Environmental Impact Assessment	5:00
Adjourn	
<u>Day 3</u>	
Session 8: Preparing and Communicating Reviewer Comments <i>(Break and lunch included).</i>	8:30
Report Out	1:00
Discussion of Public Comment	2:00
Session 9: Final Environmental Impact Assessment Review <i>(Break included)</i>	2:30
Adjourn	5:00
<u>Day 4</u>	
Session 10 Prepare a Record of Decision and Mitigation Plan <i>(Break included)</i>	8:30 10:40
Session 11 Resources for a Reviewer	12:15
Lunch	1:30
Session 12 Country Specific Applications <i>(Break included)</i>	4:30
Session Wrap-up	5:00
Adjourn	

COURSE EVALUATION

PRINCIPLES FOR ENVIRONMENTAL IMPACT ASSESSMENT REVIEW

Please evaluate the course based on your opinion of how useful the course was to you.

I. COURSE CONTENT

Do the course materials and training style convey the following (rate each topic using a scale of 1 -5; 1=poor and 5=excellent)?

TOPIC	RATING	COMMENTS
About the job of Environmental Impact Assessment Review		
How to review for completeness		
How to review for adequacy		
How to review for significance		
How to review for the integrity of the process		
How to influence decision-making and project outcomes		
How to ensure professionalism and objectivity		
How to review various sections of a typical Environmental Impact Assessment document <ul style="list-style-type: none"> • Scoping • Purposes and Need • Alternatives • Environmental Setting • Impact Assessment • Mitigation 		
Tools and techniques available for conducting a review		

How would you rate each session of the course (use a scale of 1 - 5; 1=poor and 5=excellent)?

SESSION	COURSE MATERIAL	CLARITY OF PRESENTATION	USEFULNESS OF SMALL GROUP EXERCISES	AVAILABILITY OF SUFFICIENT TIME (YES OR NO)
Introduction and Welcome				
Reviewer's Role in the Environmental Impact Assessment Process				
Approaches to Overall and Scoping Review				
Review of Purpose and Need, and Alternatives				
Review and Description of the Environmental Setting				
Review of Environmental Impacts				
Review of Proposed Mitigation				
Preparing and Communicating Review Comments on a Draft Environmental Impact Assessment				
Reviewing a Final Environmental Impact Assessment for Response to Comments				
Preparing and Supporting a Record of Decision				
Preparing and Supporting a Mitigation Plan				
Resources for a Reviewer				
Country-Specific Applications				

How would you rate the documents that the course was based upon (using a scale of 1 - 5; 1 = poor and 5 = excellent)?

TOPIC	ENVIRONMENTAL IMPACT ASSESSMENT CASE STUDIES				RESOURCE MANUAL	STUDENT TEXT
	1	2	3	4		
Relevance to the topic						
Level of technical information						
Length of document						
Breadth of applicability in other courses/countries						
Appropriate for a good learning experience						
Introduction of interesting and appropriate issues						

II. ADDITIONAL COMMENTS

- Has the course given you greater confidence in performing reviews of environmental impact assessments?
- Has the course provided you with more capacity for performing the job effectively?

- **How will you apply the things you have learned in the course of you job?**

- **Do you have any additional comments on specific sessions?**

- **Was the course at the appropriate level for you?**

- **How much experience should a reviewer have to get the most out of this course?
(please circle one and/or provide comments in the space below): A lot of experience.
A moderate amount of experience. Little or no experience.**

- **Are there general environmental impact assessments topics that you believe would be relevant for future training courses?**

- **Are there specific case studies you would like to recommend for use in future courses?**

- **Do you have any additional comments (e.g., which parts of the course did you like the best, which would you modify)?**

DEFINITIONS

ALTERNATIVES TO THE PROPOSED ACTION: Alternatives are different means of meeting the general purpose and need of a proposed action, including:

- not proceeding with the action
- carrying out the action in a different location or facility
- implementing a non-structural solution
- alternatives *within* an action, such as different designs or materials, are not usually considered alternatives

CUMULATIVE IMPACTS: Cumulative impacts result from the incremental impact of the proposed action on a common resource when added to other impacts from past, present, and reasonably foreseeable future actions. These include the collective effects of individually minor actions over a period of time.

ENVIRONMENT IMPACT ASSESSMENT: Environmental impact assessment is the systematic, reproducible, and interdisciplinary consideration of the potential effects of a proposed action and its reasonable alternatives on the physical, biological, cultural, and socioeconomic attributes of a particular geographical area. It is a decision making process designed to help integrate economic, social and environmental concerns and to help to mitigate the adverse environmental impacts of activities related to projects, plans, programs or policies. Involvement of the public and interested parties is important to obtaining complete information on impacts and ensuring sound results.

IMPACT: A change in the environment brought about by implementation of a project or alternative.

INITIAL ENVIRONMENTAL IMPACT ASSESSMENT: Initial Environmental Impact Assessments consider the significance of environmental impacts in sufficient detail to make one of two determinations:

- 1) no significant impact is expected; or
- 2) significant impacts are expected.

MITIGATION: Mitigation is a set of actions designed to reduce the undesirable impacts of a proposed action on the affected environment in one or more of five categories (in order of desirability):

- Avoidance
- Minimization
- Rectification
- Reduction
- Compensation

NO-ACTION ALTERNATIVE: The no-action alternative is the option of not engaging in the proposed action, project, or program. It considers the potential long-range outcomes resulting from no action.

PREFERRED ALTERNATIVE: The preferred alternative is that alternative that best meets the purpose and need of the action, project, or program while keeping environmental impacts to a practicable minimum. Selection often considers three perspectives:

- 1) engineering feasibility and requirements
- 2) economic viability, and
- 3) environmental soundness

PRIMARY IMPACT: A primary impact occurs at the same time and place as the action. It is usually associated with construction, operation, or maintenance of a facility or activity and are generally obvious and quantifiable..

PUBLIC PARTICIPATION: Public participation is the involvement of citizens and citizens groups in the Environmental Impact Assessment process for the purpose of balancing any decision between policy makers and those who are affected by the policy.

PURPOSE AND NEED: The purpose and need of a project is the justification for undertaking the action and may originate from legislation, administrative decisions, or private enterprise. It must be defined before the Environmental Impact Assessment process can proceed.

SCOPING: The early, open, and documented process of considering the issues and choices of alternatives to be examined in the Environmental Impact Assessment for a particular action, policy, or program. Scoping includes:

- determining the range of issues to be addressed,
- determining the significance of these issues,
- eliminating issues that are not significant,
- securing participation of all technical experts and interested parties
- assigning responsibilities for Environmental Impact Assessment preparation and review,
- identifying other related planning decisions.

SCREENING: The initial screening considers all possible impacts to the action, project, or program. It identifies whether significant impacts are expected or not.

SECONDARY IMPACT: Secondary impacts occur later in time, or at a different place from the initial action. These impact are indirect or induced changes in the environment, population, economic growth, and land use.

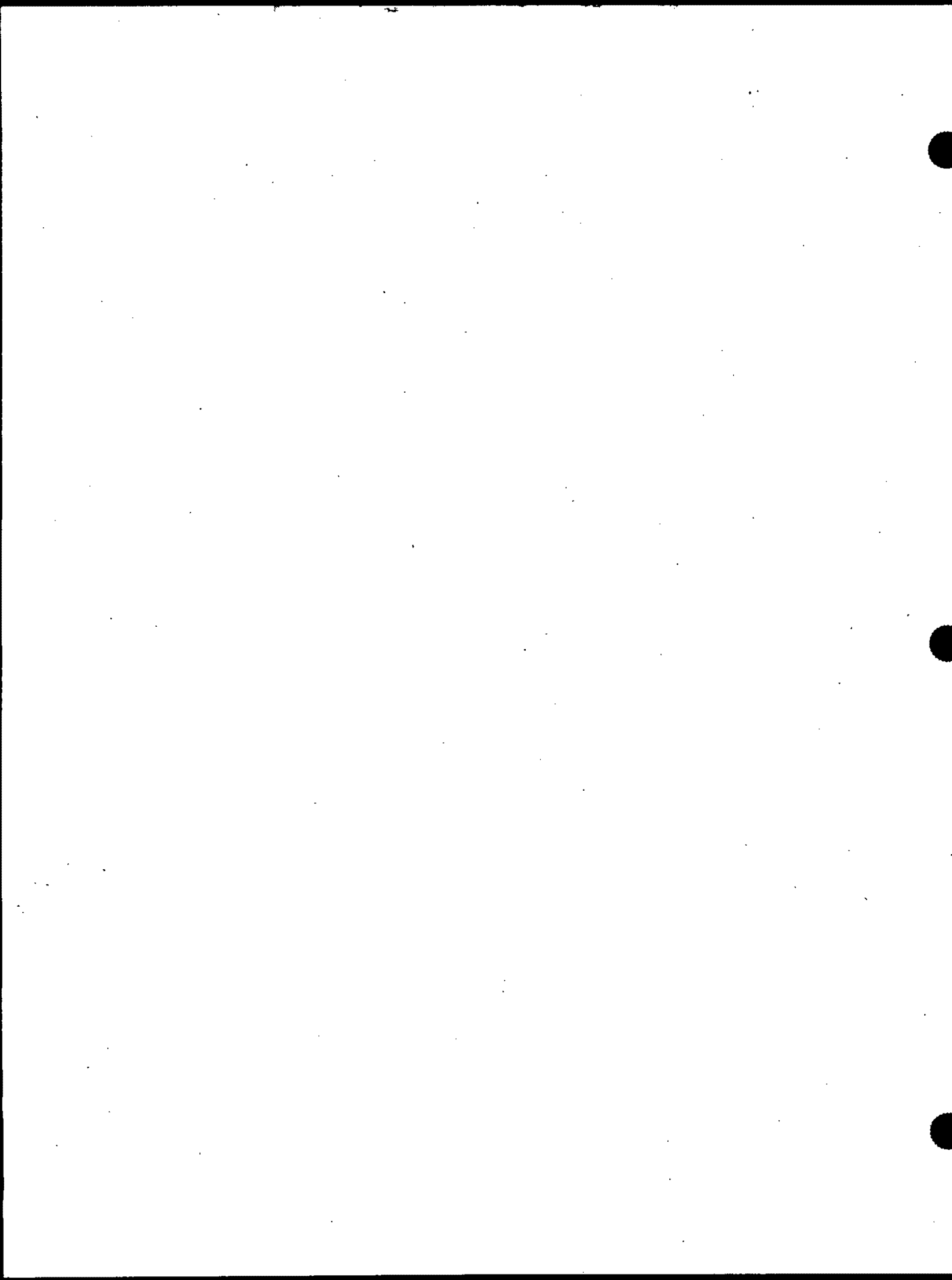
SIGNIFICANT IMPACT: A significant impact alters the properties of a natural or man-made resource in a way considered important. The importance is based on a relative change to an area, and the human perspective on the change.

REVIEWER'S ROLES

ELEMENT OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS	Group Number									
	1	2	3	4	5	6	7	8	9	10
1. Project initiation	x									
2. Deciding whether to proceed with an environmental impact assessment	x									
3. Review or preparation of an initial environmental impact assessment	x						x			
4. Scoping		x							x	
5. Public participation			x						x	
6. Preparation of a draft environmental impact assessment: Purpose and need documentation Scoping Identification of alternatives Identification of technical and interested parties Describing the environmental setting Assessment of impacts for alternatives mitigation				x						
7. Review and comment on a draft environmental impact assessment	x	x	x	x			x		x	x
8. Identification of the preferred alternative				x				x		
9. Review of a final environmental impact assessment				x				x		
10. Decision-making					x					
11. Preparation of a record of decision					x					
12. Review of a record of decision					x					
13. Preparation of a mitigation plan						x				
14. Review of a mitigation plan						x				
15. Monitoring and follow up						x				x

WORKSHEET FOR REVIEWER ROLES

Environmental Impact Assessment Process Element/ Roles	Differences for Different Situations			
	Solo	Empowered	Lead	Proactive
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				



INSTRUCTIONS FOR OVERALL AND SCOPING REVIEW

In this exercise, you will conduct a brief review of your assigned environmental impact assessment document by: 1) scanning it for significant issues, and 2) reviewing how scoping was done by the preparer of the environmental impact assessment.

Time Allotted

You will have 45 minutes to complete this review exercise. Spend the first 15 minutes conducting your own individual overall and scoping review. Spend the last 30 minutes in your small group conducting a review of scoping.

Key Questions to Address/Tasks to Complete

Individual Review

Develop a general sense of the whole document and identify the potentially significant issues posed by the proposed project and adequacy of scoping. Try not to focus exclusively on one section for all of the available time. Assume that scoping is a required element and that it must be documented in the review.

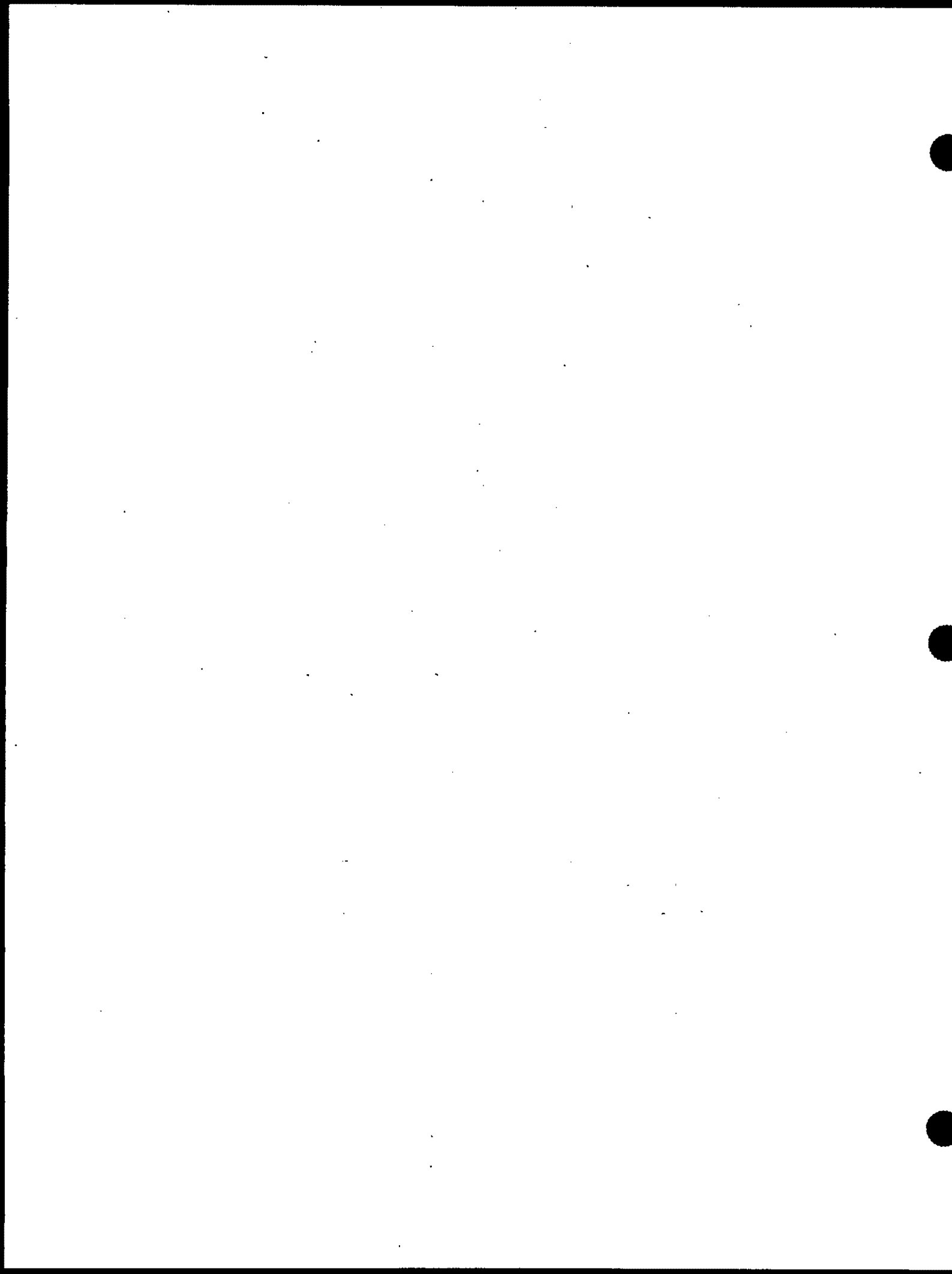
Group Review

As a group, review the scoping portion of the environmental impact assessment document. Keep the Road Map discussed earlier in mind and focus on addressing issues raised by the Road Map. Ten minutes before the end of the exercise, summarize your findings on a blank flipchart. Five minutes before the end of the exercise, elect a spokesperson to present your report.

The key questions your report should answer:

- What do you think are the significant environmental issues posed by this proposed project?
- Was scoping addressed?
- Are the major issues identified? Which ones were ignored?
- Were the issues you identified the same as the ones identified in the document?
- Are less significant issues identified?
- Who has been identified as an interested or affected party?
- Were there any obvious omissions in issues identified? In the parties identified?

Each group will have THREE MINUTES to present its answers to the above questions, so prepare to offer only your basic findings. If time remains at the end of your review process, you may take a break until the class reconvenes.



INSTRUCTIONS FOR PURPOSE AND NEED AND ALTERNATIVES REVIEW

In this exercise, your small group must review the purpose and need and alternatives portions of the environmental impact assessment document assigned to you.

Time Allotted

You will have a total of 45 minutes to conduct this review of the project description, purpose and need, and alternatives.

Key Questions to Address/Tasks to Complete

Individual Review

Your small group will need to determine how much time you will need as individuals to review the document, and you will each need to use that time to individually review and analyze the document. You should spend no more than 25 minutes on your individual review to allow time for group consensus building and report preparation.

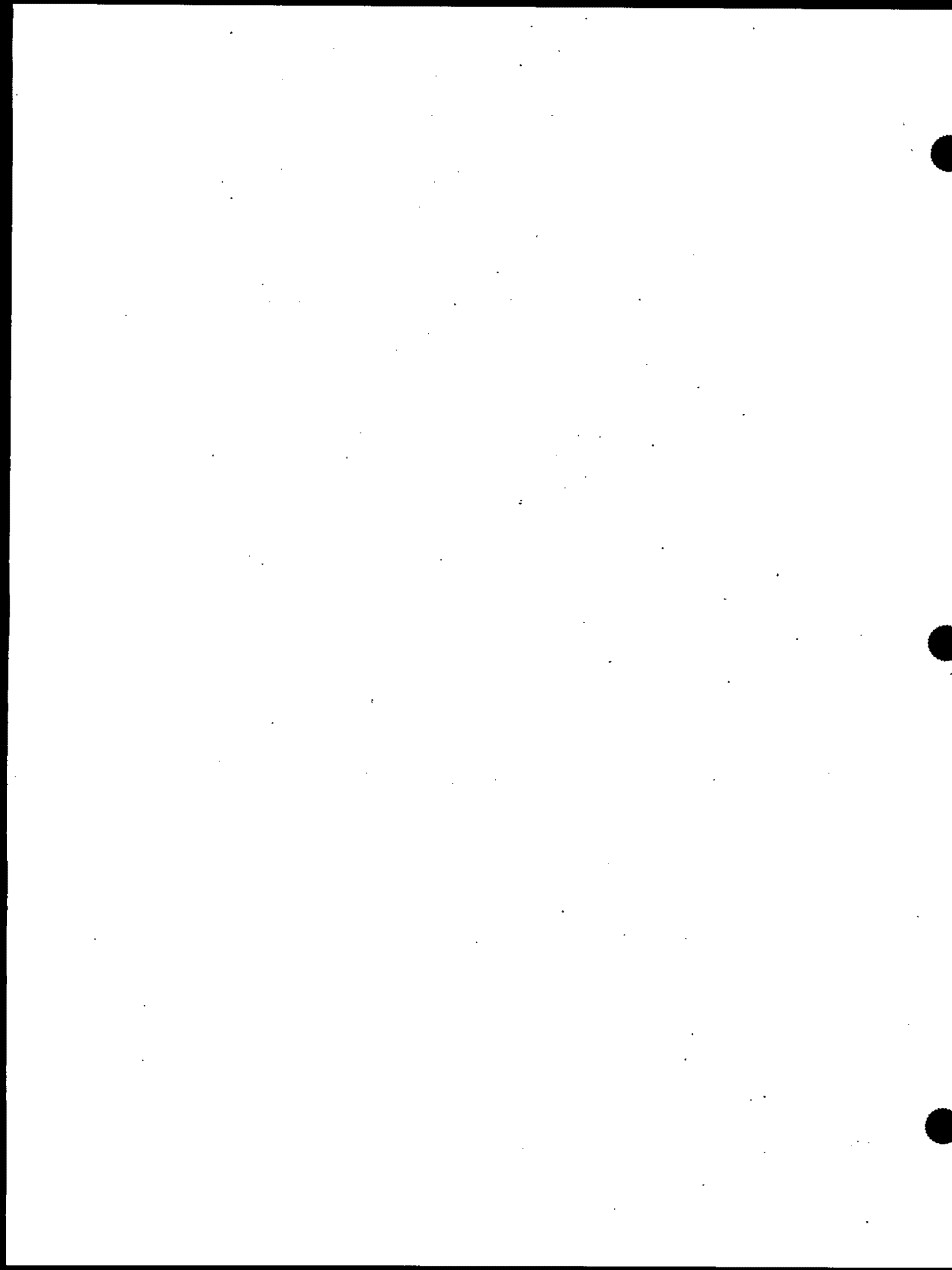
Group Review

Your small group will need to convene and discuss your observations and questions. Your group will also need to prepare a group report on major points you want to make about your review. Ten minutes before the end of the exercise, summarize your findings on a flipchart. Five minutes before the end of the exercise, elect a spokesperson to present your report.

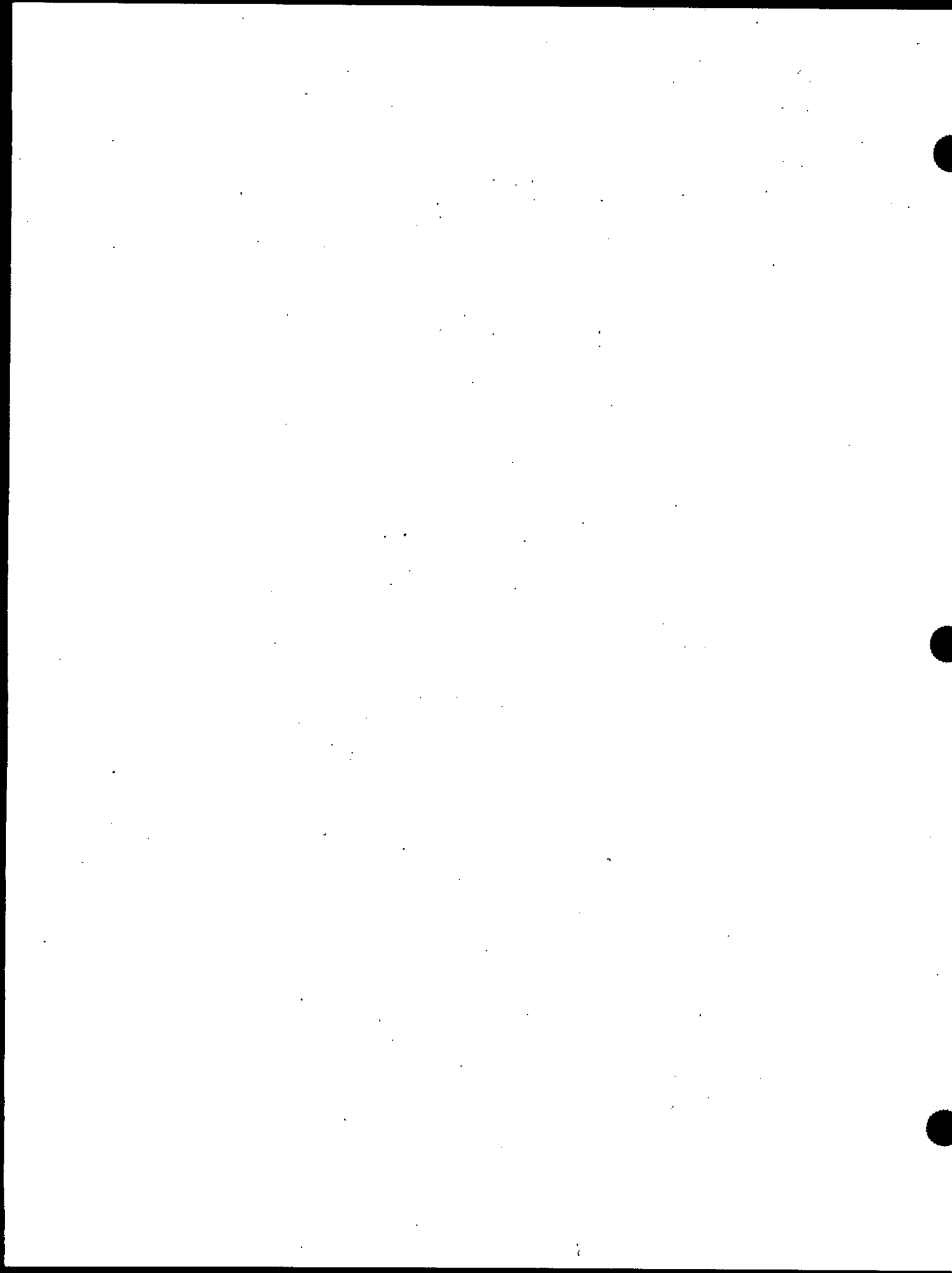
The key questions your report should answer are whether the environmental impact assessment document:

- Describes the purpose and need of the proposed project
- Demonstrates how purpose and need would be met by the proposed project
- Adequately describes the proposed project
- Considers the full range of alternatives to meet purpose and need (no action; alternative sites, designs, controls; structural vs non-structural; reallocation of social costs and benefits; reasonable, feasible; reflective of the range of choices; meet the purpose and need of the proposed project
- Preferred alternative satisfies purpose and need better than alternatives with less environmental impact.

Each group will have **THREE MINUTES** to present its findings on the above questions, so prepare to offer only your basic findings.



Environment Type	Information Sources	Data Gaps	How to Fill the Gap



ENVIRONMENTAL SETTING - DOCUMENT EXCERPTS

As a reviewer, are you satisfied with these statements? If not, what questions are raised by each statement? What additional information, if any, would you expect to see in an environmental impact assessment to support these statements?

ASSESSMENT BOUNDARY

- "The Sanco Municipal boundary closest to the proposed wastewater treatment facility was utilized to define the assessment area."

INFRASTRUCTURE

- "The Town of Binghamton's solid waste landfill has been recently constructed and is under utilized."

FLORA AND FAUNA

- "Flora and fauna along the route of the proposed Blue Ridge Highway are thought to be generally characteristic of the Southeastern United States."

ENDANGERED SPECIES

- "No endangered species has been observed at the proposed site in the past three years."

DEMOGRAPHICS

"Only 10 percent of the population use the river for fishing"

SOCIO-ECONOMICS

- "The local economy in Western Alberta is entirely dependent on agriculture, mining, and tourism."

INSTRUCTIONS FOR ENVIRONMENTAL SETTING REVIEW

In this exercise, you will review the description of the environmental setting portion of your assigned environmental impact assessment case study document.

Time Allotted

You will have a total of 50 minutes to conduct this review of the description of the environmental setting.

Key Questions to Address/Tasks to Complete

Two of the four case study review groups will receive a checklist to review the description of the environmental setting. If you received this checklist, use it as much as possible to guide your review. Whether or not you received the checklist, feel free to use any of the tools and techniques that have been described during this course.

Individual Review

Your small group will need to determine how much time you will need as individuals to review the document, and you will each need to use that time to individually review and analyze the document. You should spend no more than thirty minutes on your individual review to allow time for group consensus building and report preparation.

Group Review

Your small group will need to convene to discuss your observations and questions. Your group will also need to prepare a group report on major points you want to make about your review of this element. Ten minutes before the end of the exercise, you should summarize your findings on a flipchart. Five minutes before the end of the exercise, you should elect a spokesperson to present your report.

In preparing your report, focus on evaluating whether the environmental setting portion of your assigned environmental impact assessment document met the criteria in the Road Map for Environmental Setting Review. Each group will have **THREE MINUTES** to present its report, so prepare to offer only your basic findings.

Environmental Setting Checklist

Issue and Text Reference	N/A	Adequately Covered	Not Adequately Covered	Comments
DESCRIPTION OF THE ENVIRONMENTAL SETTING				
1. Region of Concern defined, including boundary areas (p. 4-12)				
2. Physical-Chemical Environment (p. 4-12)				
a. Air Resources (p. 4-13)				
1) meteorological data (e.g., temperature, wind)				
2) ambient air quality (e.g., particulates, ozone)				
3) stationary sources of emissions (e.g., power plants)				
4) mobile sources of emissions (e.g., cars and trucks)				
b. Water Resources (p. 4-14)				
Surface Water:				
1) location and type (e.g., estuaries, streams, lakes, and their position relative to the site)				
2) water quality information (e.g., dissolved oxygen, temperature, nutrients)				
3) existing pollutant sources (location and amount of discharges)				
4) future uses				
5) discussion of flooding events				
Ground Water:				
6) description of key factors (e.g., depth to water table, overlying soils, geologic features)				
7) water quality information (e.g., pH, solids)				
c. Soils and Geology (p. 4-16)				
1) topography				
2) soil structure				
3) ground water movement				
4) erosion potential				
5) subsidence				
6) seismic activity (e.g., proximity to faults, history of earthquakes and volcanic eruptions)				
7) mineral resources (e.g., locations of deposits, types and quantities, ownership of mining rights)				
2. Biological Conditions				

Issue and Text Reference	N/A	Adequately Covered	Not Adequately Covered	Comments
a. Wildlife and Vegetation (p. 4-18)				
1) description and listing of aquatic, wetland, and terrestrial flora and fauna (e.g., species lists, abundances)				
2) description and listing of native species of wildlife and vegetation present				
3) description and listing of particularly invasive exotic species of wildlife and vegetation				
4) description and listing of rare and threatened species				
b. Community and Habitat Characterization (p. 4-22)				
1) maps and descriptions of the aquatic, wetland, and terrestrial communities found in and around the project site				
c. Ecologically Significant Features (p. 4-24)				
1) support of broader ecosystems by the project site (e.g., if located along a flyway or other biological corridor)				
2) important ecological functions of the project site (e.g., nutrient source through flooding, stormwater retention)				
3) characterization of relevant disturbance regimes, natural and project-induced (e.g., floods, fire, potential impact of logging)				
4) description of hydrologic processes (e.g., ground and surface water flows and durations)				
5) description of important biotic interactions (e.g., interdependence of plants and animals at the site and with other sites)				
4. Waste Management and Pollution Prevention (p. 4-27)				
a. Locations of expected waste disposal or discharge				
b. Description of waste management techniques (e.g., treatment, storage, transport, recycling)				
c. Projected waste characteristics (e.g., types, quantities, toxicity)				
5. Socioeconomic Environment (p. 4-28)				
a. Land Use (p. 4-29)				
1) description of present and historic land use				
2) map of present and historic land use				
b. Population and Housing (p. 4-29)				

Issue and Text Reference	N/A	Adequately Covered	Not Adequately Covered	Comments
1) demographic information (e.g., average household size, average age, age/sex distributions, ethnic composition, and community cohesion)				
c. Economic Activity (p. 4-30)				
1) description of present economic activity (e.g., number and type of businesses, annual revenues, ownership patterns)				
2) description of unique features of business community (e.g., high seasonality of trade, high outflow of profit, declining of trade, or downtown revitalization)				
3) consideration of interplay among economic activity, capacity of public services, and fiscal ability of community to respond to capacity needs				
d. Community Services and Public Finance (p. 4-31)				
1) description of existing public facilities and services within vicinity of project, including existing level of use and remaining capacity to accommodate growth				
e. Transportation (p. 4-32)				
1) description of all relevant forms of transportation for facility				
2) current traffic volumes				
3) current traffic capacity				
4) provision of public transportation				
5) assessment of the adequacy of the systems for meeting peak demands during construction and operation				
f. Health and Safety (p. 4-32)				
1) description of present health and safety issues (e.g., statistics on industrial accidents, emissions data from prior and existing facilities, present levels of noise)				
2) identification of special populations or areas more likely to be exposed to adverse impacts				
6. Cultural Resources (p. 4-33)				
a. Archaeological sites in relation to the project				
b. Paleontological sites in relation to the project				
c. Historic sites in relation to the project				
d. Educational, religious, scientific, or cultural sites in relation to the project				

ENVIRONMENTAL IMPACT EVALUATION DOCUMENT EXCERPTS

As a reviewer are you satisfied with these statements? If not, what questions are raised by each statement? What additional information, if any, would you expect to see in an environmental impact assessment to support these statements?

PREDICTIVE MODEL

- "One year of historical water quality data, from an existing U.S. Geological Survey monitoring station, was entered into the Persistence model. The results of the application of the model indicate that the water body adjacent to the proposed shopping center would not be affected by its construction and operation."

EXTRAPOLATION/TREND ANALYSIS

- "The population of Sanco County has grown at an annual rate of approximately 5 percent over the past 10 years and is expected to continue to grow at this rate for the next 10 to 15 years. The County's current community service plans are sufficient to accommodate this growth. "

EXPERT OPINION

- "A recognized transportation expert reviewed the results of a 1993 traffic study and determined that there would be no impact from the proposed soccer stadium on the flow of traffic within the city."

SEGMENTATION

- "No potentially significant impacts that require mitigation have been identified for operation of the proposed power plant."

Environmental Impact Checklist

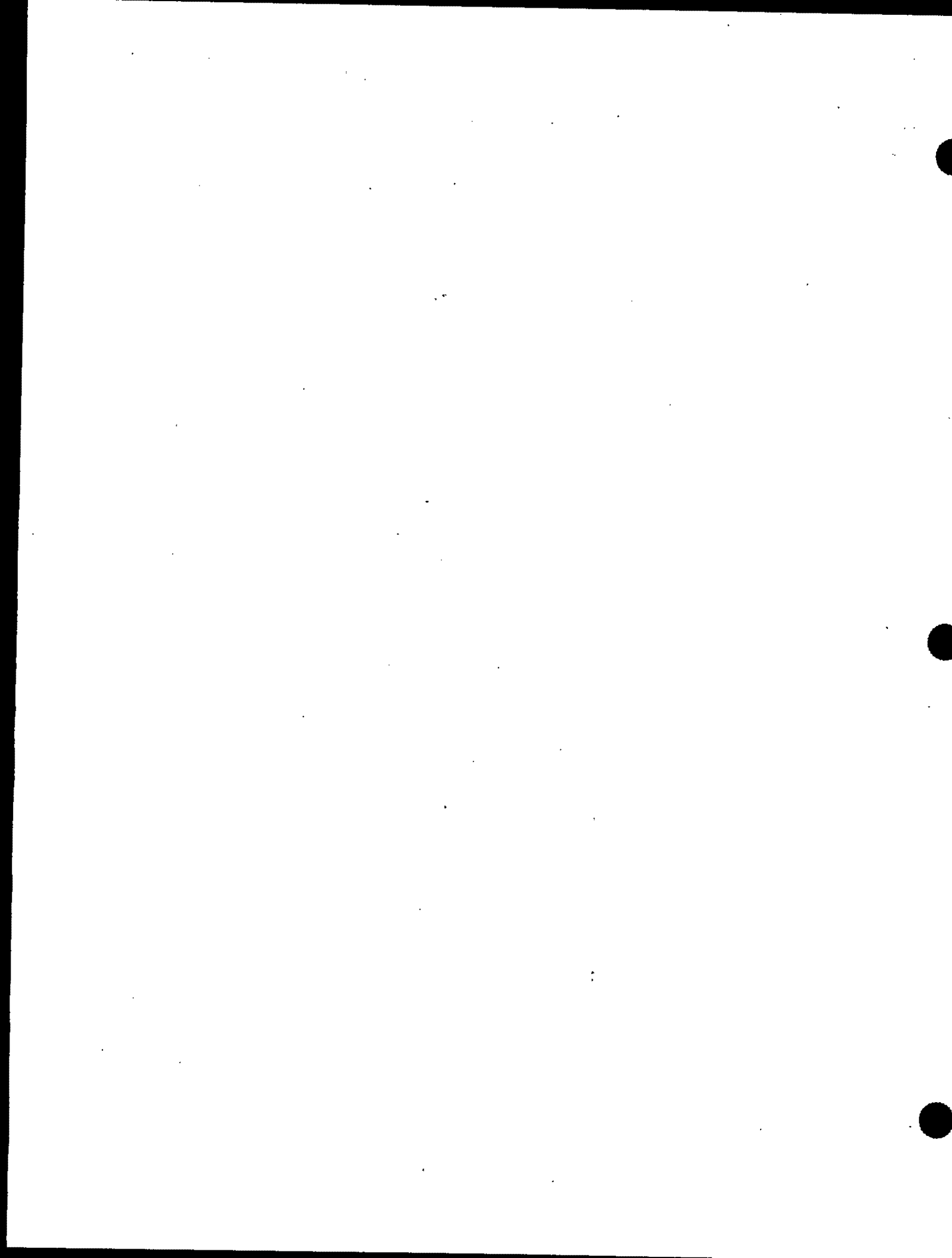
Issue and Text Reference	N/A	Adequately Covered	Not Adequately Covered	Comments
ASSESSMENT OF POTENTIAL ENVIRONMENTAL IMPACTS				
The Environmental Impact Assessment discusses primary, secondary, and cumulative impacts during all stages, including initial site preparation and construction; facility operation, and post-facility or site closure for the following (p. 4-36):				
1. Pollutant Generation, Transport, and Receptors (p. 4-40)				
a. Air Resources (p. 4-40)				
1) identification of emission sources and project emission rates and comparison to national, state, and local standards and limitations				
2) comparison of predicted atmospheric levels with national, state, or local ambient levels				
3) description of stack emissions during operation and maintenance activities and comparison with existing national, state, and local standards				
4) identification of best mitigation measures to avoid or minimize adverse impacts				
b. Water Resources (p. 4-42)				
1) address potential for water quality to be degraded by various factors				
2) prediction of pollutant concentrations in water bodies and comparison with existing national, state, and local water quality standards and criteria				
3) identification of best mitigation measures to avoid or minimize adverse impacts				
c. Geological Resources (p. 4-45)				
1) determination of potential soil loss and mitigation activities				
2) identification of potential contamination sources and mitigation measures				
d. Biological Resources (p. 4-46)				
1) consideration of potential losses of biological resources within site boundaries				
2) description of effluent and emission concentrations and their potential effects to vegetation and wildlife				
3) discussion of bioaccumulative effects from facility emissions and discharges				

Issue and Text Reference	N/A	Adequately Covered	Not Adequately Covered	Comments
4) identification of best mitigation measures to avoid or minimize adverse impacts				
2. Habitat Alteration (p. 4-46)				
a. Biological Resources (p. 4-47)				
1) address potential for construction and site preparation activities to alter critical habitats for wildlife				
2) consideration of potential for secondary changes in habitats following construction and site preparation activities				
3) assessment of possible permanent loss or displacement of vegetation habitat due to operation				
4) identification of changes in local species composition, diversity, and abundances resulting from loss of specific habitats				
5) identification of best mitigation measures to avoid or minimize adverse impacts				
3. Waste Management and Pollution Prevention (p. 4-52)				
a. description of facility waste management plan with procedures for treatment, handling, and disposal				
b. discussion of projected facility waste characteristics				
c. identification of best mitigation measures to avoid or minimize adverse impacts				
4. Socioeconomic Impacts (p. 4-53)				
a. Land Use (p. 4-54)				
1) identification of the existing or planned land use areas lost due to site preparation and construction activities				
2) determination of conflicting zoning requirements and land uses with site preparation and construction activities				
3) description of anticipated changes in near by land use as a result of the facility and evaluation of conflicts that could arise during operations				
4) identification of best mitigation measures to avoid or minimize adverse impacts				
b. Economic Activity (p. 4-57)				
1) address changes in employment patterns				
2) address ability of available labor pool to meet project-related employment needs				
3) identification of economic multipliers used in analysis and their source				

Issue and Text Reference	N/A	Adequately Covered	Not Adequately Covered	Comments
4) discussion of potential change in overall economic activity in region				
5) identification of best mitigation measures to avoid or minimize adverse impacts				
c. Population and Housing (p. 4-58)				
1) address the relationship between employment increases and population in-migration				
2) identification of deficiencies in available housing for the potential increased workforce and their families				
3) identification of best mitigation measures to avoid or minimize adverse impacts				
d. Community Services and Public Finance (p. 4-59)				
1) identification of deficiencies in community services and infrastructure during project construction and operation				
2) identification of shortfalls in transportation capacity due to either primary or secondary impacts of the project				
3) identification of best mitigation measures to avoid or minimize adverse impacts				
e. Transportation (p. 4-61)				
1) assessment of proposed project's consistency with local and/or regional transportation plans				
2) evaluation of changes in LOS resulting from the proposed project and alternatives				
3) evaluation of the effect of heavy vehicle traffic on affected pavement and bridges				
4) description of mitigation measures to offset adverse impacts to structural integrity and public safety				
f. Health and Safety (p. 4-62)				
1) evaluation of whether construction, operation, and maintenance activities present health and safety hazards to humans working or living at or near the project site				
2) discussion of potential effects of facility noise levels on workers, local communities, and local flora and fauna				
3) analysis of potential long-term contaminant bioaccumulation within the food chain				

Issue and Text Reference	N/A	Adequately Covered	Not Adequately Covered	Comments
4) identification of best mitigation measures to avoid or minimize adverse impacts				
g. Environmental Equity (p. 4-63)				
1) determination of the equity of changes in employment patterns attributable to site preparation and construction activities				
2) determination of the equity of community structure changes caused by project construction and operation				
3) identification of best mitigation measures to avoid or minimize adverse impacts				
5. Cultural Resources (p. 4-63)				
a. identification of any historical or cultural resources in close proximity to the site following correspondence with appropriate authorities				
b. discussion of mitigation measures necessary to preserve items of archaeological, historical, or cultural interest				
c. determination of the extent to which construction, operation, and maintenance activities disrupt the aesthetic or sensory attributes of the site				
d. determination of whether the facility components are designed with consideration given to human factors				
MITIGATION MEASURES				
1. Mitigation Measures (p. 4-68)				
a. description of mitigation activities for all significant impacts to both the natural and human (socioeconomic) environments				
b. description of mitigation measures with adequate information to evaluate environmental consequences and residual impacts				
c. identification of best mitigation measures to avoid or minimize potential impacts during all stages of the project, including siting and design, facility operation, and post facility closure.				
d. support of the following types of mitigation measures, in the following decreasing order of preference: - Avoidance or prevention - Minimization - Reduction or elimination over time - Correction - Compensation.				
e. implementation plan (schedule) and criteria for performance for all mitigation measures.				
f. responsible entity assigned to carrying out each mitigation measure.				

Issue and Text Reference	N/A	Adequately Covered	Not Adequately Covered	Comments
g. measures are socially and culturally acceptable.				
h. adequate financial and non-financial resources to implement the measures.				



INSTRUCTIONS FOR REVIEW OF IMPACTS IN CASE STUDIES

In this exercise, you will review your assigned environmental impact assessment document for discussion of its assessment of environmental impacts. You will do this both individually and as a group.

Time Allotted

You will have 80 minutes to complete your review. You will also have 60 minutes for lunch. Each group is responsible for scheduling lunch within the two hours and 20 minutes available.

Key Questions to Address/Tasks to Complete

Individual Review

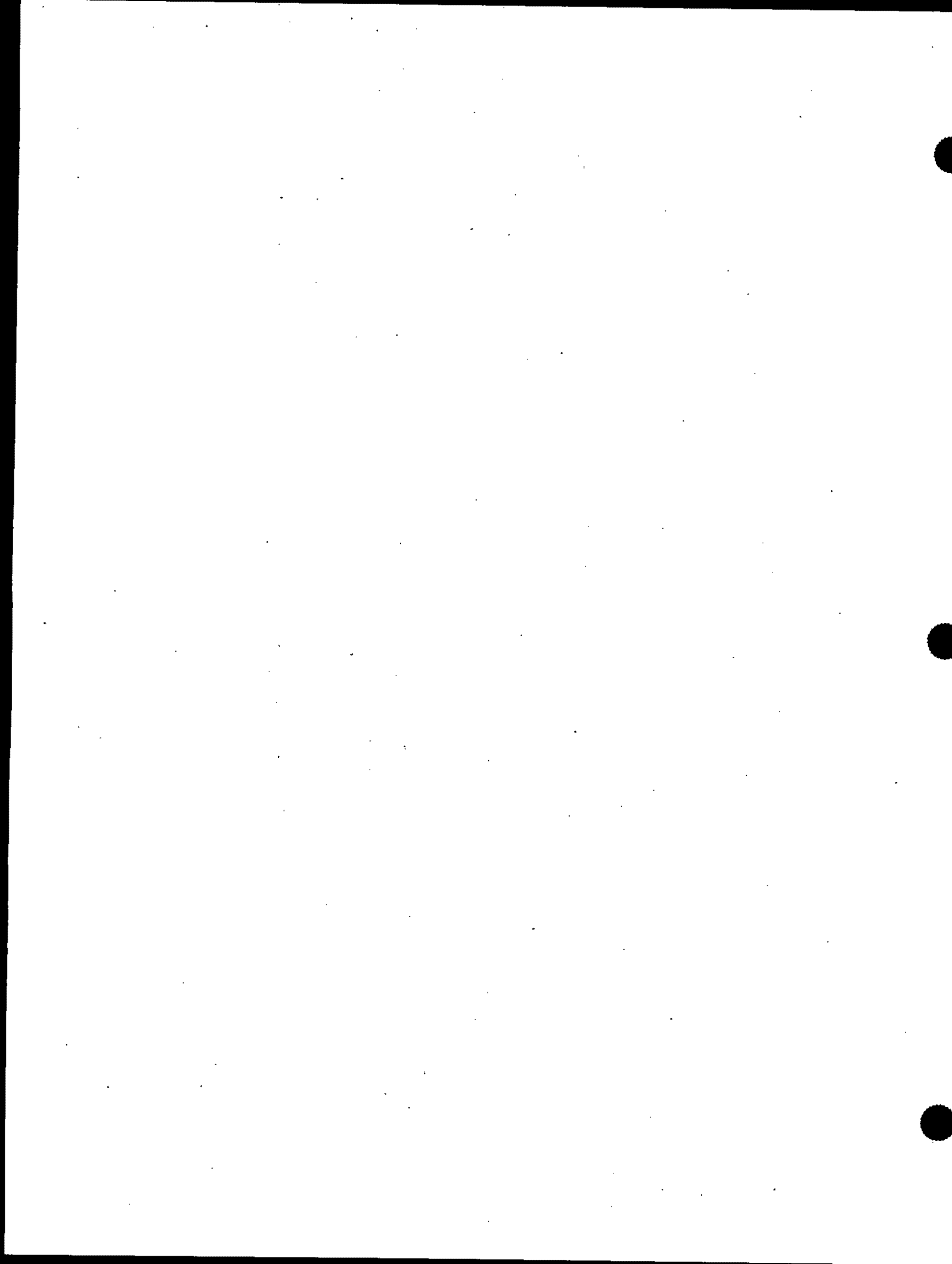
Your small group will need to determine how much time you will need as individuals to review the document, and you will each need to use that time to individually review and analyze the document. You should spend no more than one hour on your individual review to allow time for group consensus building and report preparation.

Group Review

Your small group will need to convene and discuss your observations and questions. Your group will also need to prepare a group report on major points you want to make about your review of this element. Ten minutes before the end of the exercise, you should summarize your findings on a flipchart. Five minutes before the end of the exercise, you should elect a spokesperson to present your report.

You must factor in time for lunch. We recommend that you individually review the material before lunch and begin your discussions. Then, arrange a specific time for your group to reconvene. Be sure to leave sufficient time after lunch to complete your discussions and allow for report preparation.

During your review and when preparing your group report, focus on evaluating whether the environmental impacts portion of your assigned environmental impact assessment document met the criteria in the Road Map for Environmental Impact Review. Each group will have THREE MINUTES to present its report, so prepare to offer only your basic findings.



PROPOSED MITIGATION - DOCUMENT EXCERPTS

As a reviewer, are you satisfied with these statements? If not, what questions are raised by each statement? What additional information, if any, would you expect to see in an environmental impact assessment to support these statements?

POLLUTION CONTROL

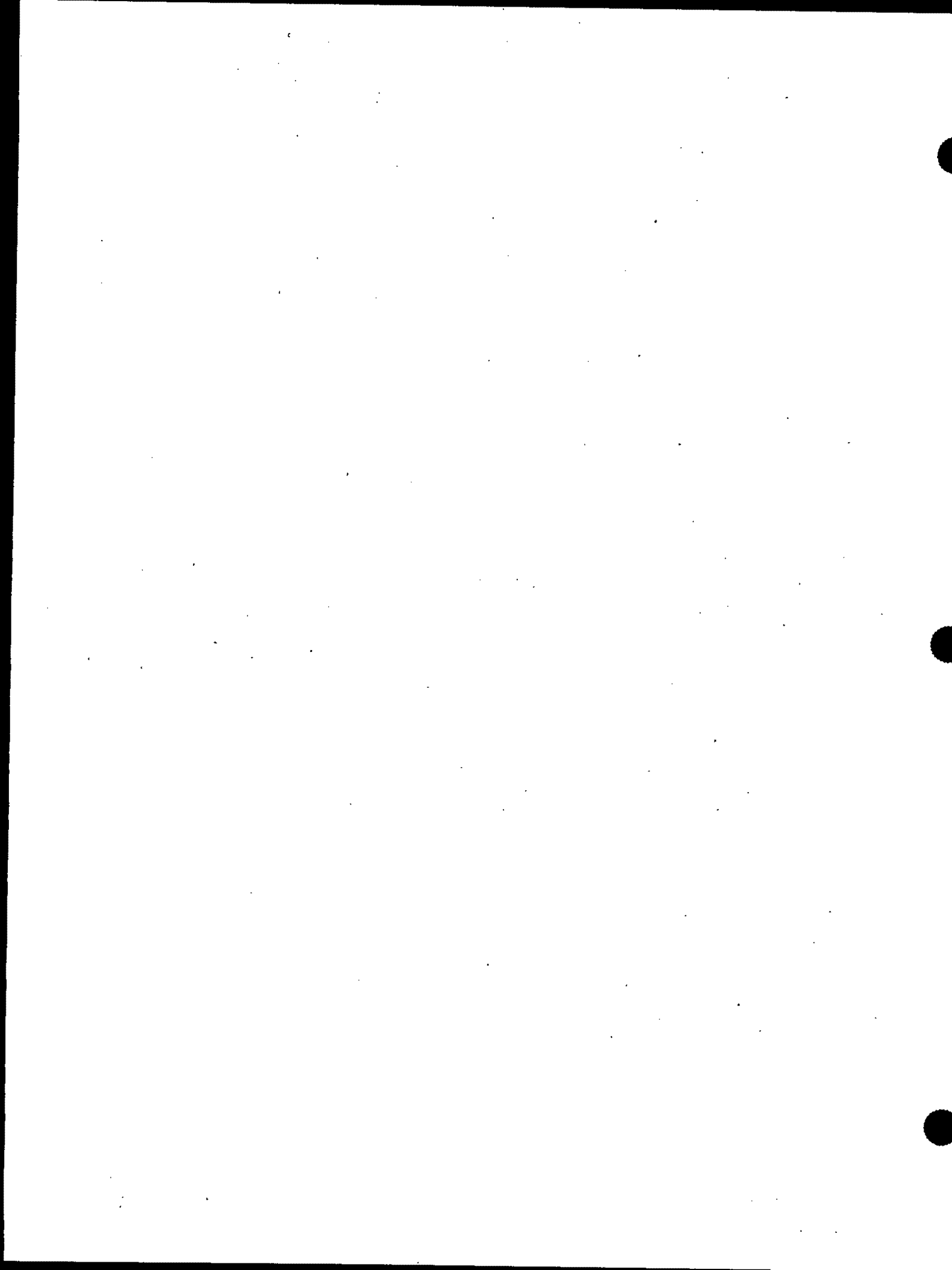
- "Particulate matter emissions from the proposed coal-fired power plant will be controlled through the installation of control technologies in compliance with the city's emission standards."

FLORA AND FAUNA

- "A two acre wetland will be constructed adjacent to the stadium's parking area to compensate for wetland habitat being drained during construction."
- "At the completion of mining activities at the Copper Incorporated mine, the disturbed area will be regarded and seeded to reduce erosion."

SOCIO-ECONOMIC

- "The local automobile factory has announced plans to add a third shift which will compensate for local employment reductions in Sanco County as a result of the closing of four small businesses located in the right-of-way for the proposed highway expansion."



INSTRUCTIONS FOR REVIEW OF PROPOSED MITIGATION

In this exercise, you will review your assigned environmental impact assessment document for discussion of proposed mitigation. You will do this both individually and as a group.

Time Allotted

You will have a total of 45 minutes to complete your review of this element of your assigned environmental impact assessment case study document. If your group finishes before 45 minutes have passed, you may take a break until all groups reconvene for group presentations.

Key Questions to Address/Tasks to Complete

Individual Review

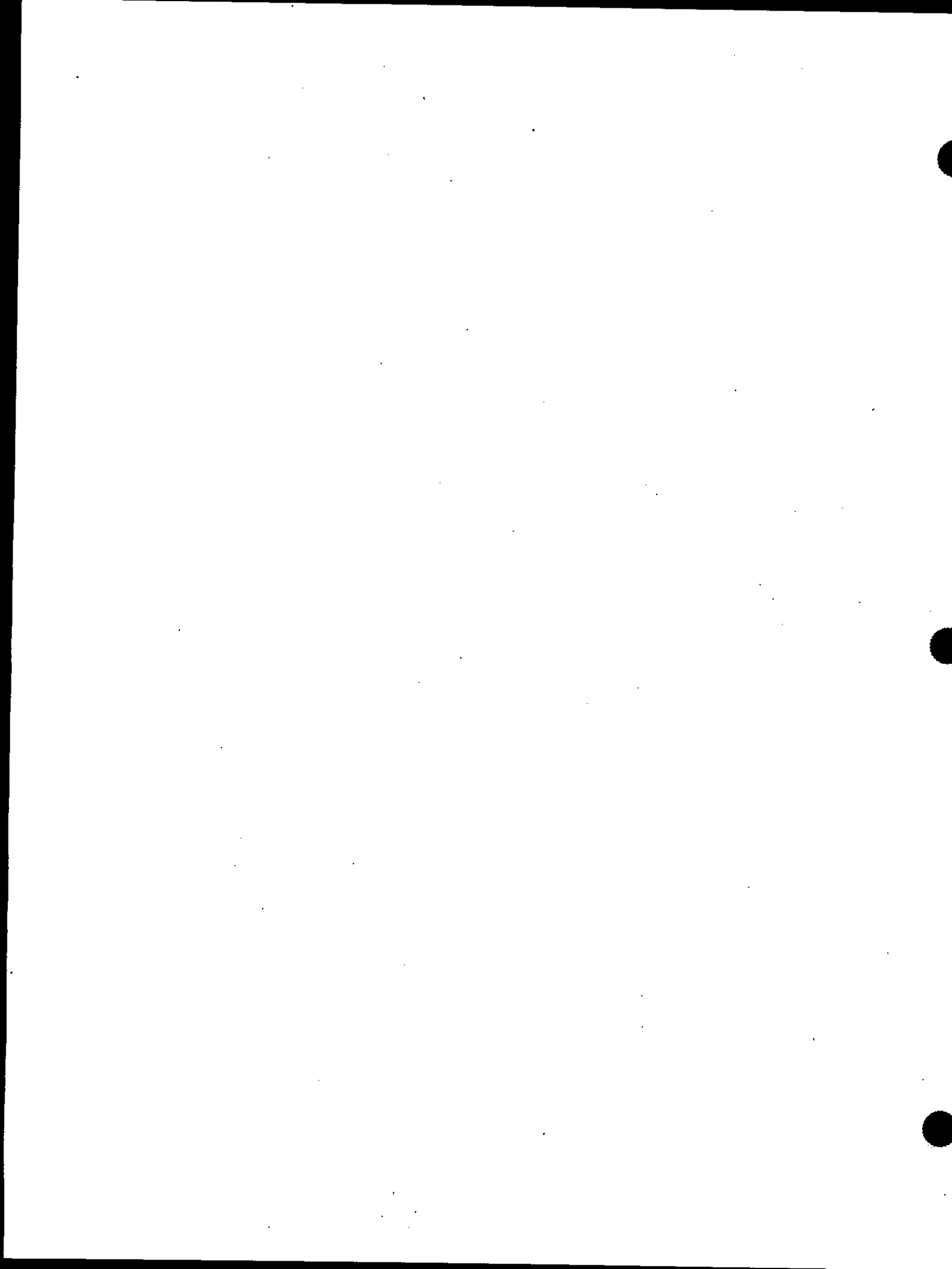
Your small group will need to determine how much time you will need as individuals to review the document, and you will each need to use that time to individually review and analyze the document. You should spend no more than fifteen minutes on your individual review to allow time for group consensus building and report preparation.

Group Review

Your small group will need to convene and discuss your observations and questions. Your group will also need to prepare a group report on major points you want to make about your review of this element. Ten minutes before the end of the exercise, you should summarize your findings on a flipchart. Five minutes before the end of the exercise, you should elect a spokesperson to present your report.

In conducting your review, assume the environmental impact assessment is required to identify mitigation options for each alternative. Refer to the Road Map we have created to keep your review focused and effective, as well as the tools and techniques we presented in Session 3. Also, feel free to use the World Bank tables, or other resources available in the Resource Manual.

Each group will have THREE MINUTES to present its answers to the above questions, so prepare to offer only your basic findings. If time remains at the end of your review process, you may take a break until the class reconvenes.



INSTRUCTIONS FOR MANAGEMENT PLAN DEVELOPMENT

In this exercise, you will create a management plan for integrated review of the entire environmental impact assessment case study document you have been assigned.

Time Allotted

You will have 45 minutes to finish drafting your management plan. All of this time will be spent in group discussion.

Key Questions to Address/Tasks to Complete

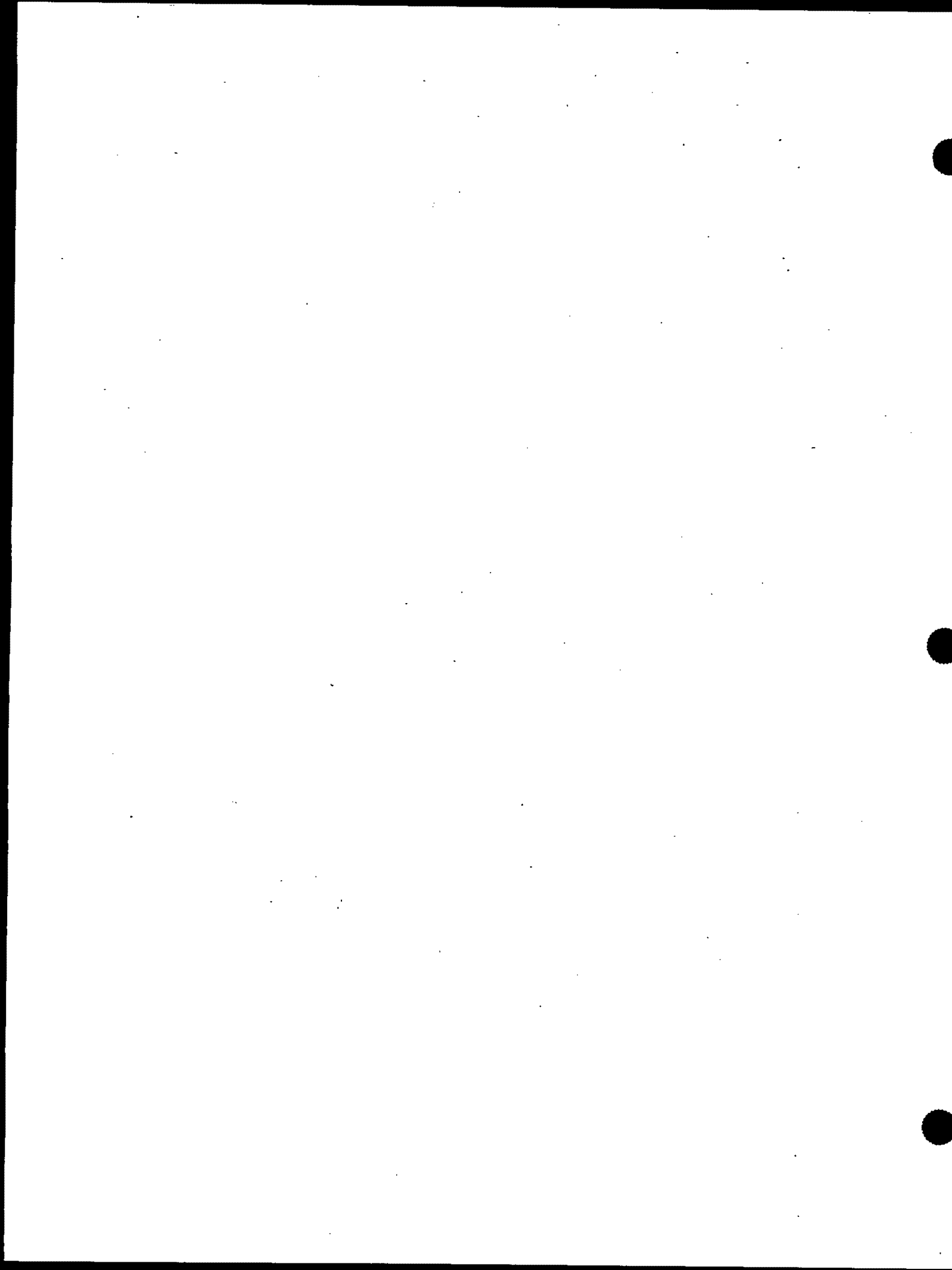
In this exercise, you must develop a management plan for integrated review of the entire draft environmental impact assessment document assigned to your group. This plan must achieve the following things:

- Assign specific review roles to all group members, including the role of the lead reviewer and associate reviewers; and
- Establish a process to integrate the comments you will generate on the draft document (i.e., subject matter integration).

Your group will need to determine how you will:

- Use the maximum amount of the resources at your disposal (e.g., group members, past review comments, Resource Manual information, Student Text);
- Consider the past comments you have made on various parts of the draft document; and
- Consider any new comments that are identified, particularly based on a new perspective of the entire document.

Your group will be expected to implement its management plan tomorrow morning. The result of implementation of your management plan will need to be a comment letter on the draft environmental impact assessment document you have been assigned.



ROAD MAP FOR OVERALL ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENT REVIEW

- Review Table of Contents and Executive Summary
- Scan and read the document several times
- Take notes, write down questions
- Go through key environmental impact assessment elements
 - Purpose and Need, Alternatives, Environmental Setting, Impact, Mitigation
- Use checklists where appropriate
- Review the logic and consistency of the document
- Use a systematic approach to identify areas where the assessment is:
 - Incomplete, inadequate
 - Significance unsupported/unclear/ignored
 - Lacks integration
- Identify and adopt perspectives of all interested and affected parties
- Compare document to other environmental impact assessments
- Determine whether the document supports decision-making

ROAD MAP FOR SCOPING REVIEW

- Scoping was conducted and documented
- Potentially significant issues are identified for natural and human environments
- Insignificant issues identified and their dismissal justified
- Identified and considered the views of all interested and affected parties
- Sufficient detail provided to define the spatial and temporal scope
- Adequate geographic area considered for the scope
- Omissions are not related to significant issues
- Key issues are brought into focus

TOOLS AND TECHNIQUES FOR ENVIRONMENTAL IMPACT ASSESSMENT REVIEW

- Information on legal and institutional requirements, policy, and guidance
- Guidelines
- Road Maps
- Checklists
- Student texts
- Library
- Field reconnaissance
- Analytic and predictive models
- GIS maps and overlays
- Environmental impact assessments for similar projects, geographic area, etc.
- Consultation by colleagues/outside experts/academia
- Reviewing other reviewer/public comments

ROAD MAP FOR PURPOSE AND NEED AND ALTERNATIVES REVIEW

- Describes the purpose and need of the proposed project
- Demonstrates how the purpose and need would be met by the proposed project
- Adequately describes the proposed project
 - Maps project site, surrounding land use, and natural features
 - Who and what would benefit; who and what would be affected
 - Phases; site preparation, construction, operation, and closure
 - Time frames, including when proposed project begins and ends
- Considers the full range of alternatives to meet the purpose and need
 - No action
 - Alternative sites, designs, controls
 - Structural vs. non-structural
 - Reallocation of social costs and benefits
 - Reasonable, feasible
 - Reflective of the range of choices
 - Meet the purpose and need of the proposed project
- Preferred alternative satisfies the purpose and need better than alternatives with less environmental impact

ROAD MAP FOR ENVIRONMENTAL SETTING REVIEW

- All relevant types of natural and human environmental issues are addressed
- Affected area or community is adequately and accurately defined
- Adequately map impact area and surrounding features
- Baseline is established to measure impact
- Appropriate information and data documented and used appropriately
- Information links back to project description, purpose and need, alternatives
- Levels of detail are appropriate to significance
- Information and data is of acceptable quality and relevance
- Section is internally consistent

ROAD MAP FOR ENVIRONMENTAL IMPACT REVIEW

- All natural and human (socioeconomic) environmental impacts are identified
- Types of impacts include primary, secondary, and cumulative
- Detail on impacts is balanced among reasonable and feasible alternatives
- Both beneficial and adverse impacts are identified
- Potential impacts are identified for all phases of the proposed project
- Models, experts, and criteria used to project the significance of impacts are valid for appropriate circumstances
- Data, information and key assumptions are representative, accurate, and current
- Appropriate criteria are used to characterize significance

ROAD MAP FOR MITIGATION REVIEW

- Specific mitigation measures are proposed
- All significant adverse impacts are addressed by the mitigation plan
- Measures are proposed for:
 - All types of impacts
 - All phases of the proposed project
 - All environment types
- Preferred mitigation measures at the top of the mitigation type hierarchy are considered
- Mitigation measures are described in sufficient detail relative to the significance of impact
- Mitigation measures are:
 - Technically and financially feasible with adequate financial and non-financial resources to implement the measures
 - Socially and culturally acceptable
- Implementation plans include schedules and interim milestones, and timing is consistent with other factors presented in the assessment of impact
- Responsible parties are identified and committed to implementation

ROAD MAP FOR DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REVIEW

- Establish a management approach:
 - Establish lead reviewer
 - Assign roles
 - Establish a schedule
 - Conduct review

- Consolidate reviewers' comments:
 - Identify most significant issues
 - Determine the significance of each comment
 - Establish common threads
 - Resolve any discrepancies

- Draft a comment letter:
 - Maintain neutrality, objectivity and professionalism
 - Provide clear and concise comments

- Anticipate and respond to public comment

ROAD MAP FOR THE COMMUNICATION LETTER

- State bottom line including major recommendations up front and clearly
- Describe proposed project context
- If the purpose and need of the proposed project is in question, develop the link to the environmental concerns
- Distinguish what is mandatory, what is significant
- Provide a description of the substantive and/or procedural concerns
- Demonstrate sensitivity to interests and affected community
- Provide recommendations for addressing the concerns

ROAD MAP FOR FINAL ENVIRONMENTAL IMPACT ASSESSMENT REVIEW

- Establish a management approach
- Determine if basic assumptions and information are the same for draft and final documents
- Assess impacts of any changes on alternatives, impacts and proposed mitigation
- Verify that comments were acknowledged and addressed
- Review the relationship and consistency among responses to individual comments
- Consolidate comments and prepare the final comment letter
- Determine whether responses change fundamental reviewer findings:
 - Acceptability of environmental impact
 - Needed mitigation
 - Adequacy of environmental impact assessment document and process
 - Who needs to be involved and consulted
- Decide actions to increase chance of correcting remaining deficiencies
- Anticipate use by decision maker
- Anticipate use to establish mitigation requirements
- If appropriate, prepare final comment letter

INSTRUCTIONS FOR COMMUNICATION LETTER DEVELOPMENT

In this exercise, you will draft a communication letter on the entire draft environmental impact assessment case study document you have been assigned.

Time Allotted

You will have 3.5 hours to prepare your reviewer comments. This period will be followed by a one-hour lunch. You will need to be back 4.5 hours from now to report out on your comment letters.

Key Questions to Address/Tasks to Complete

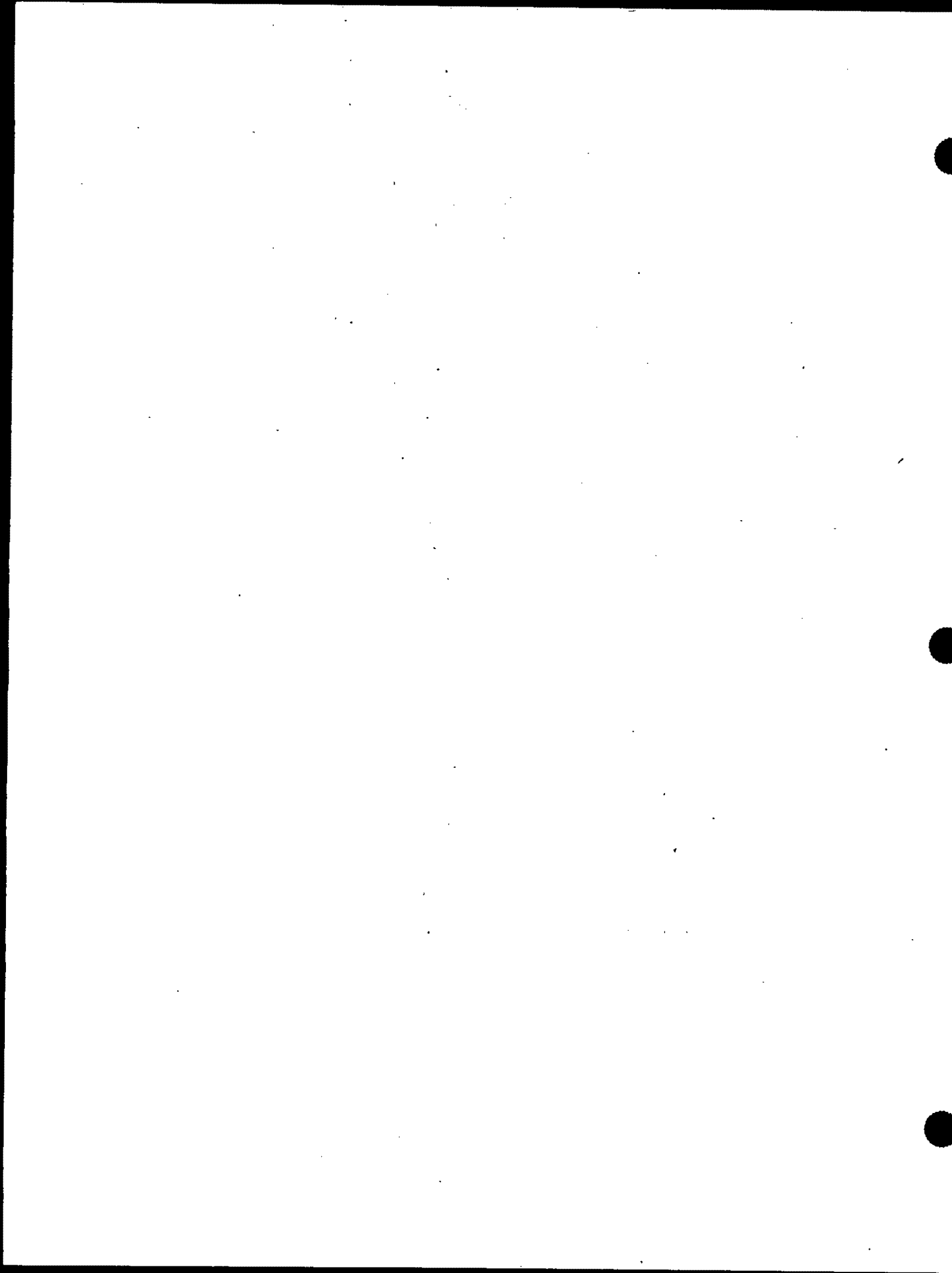
In the previous exercise, you created a management plan for conducting an integrated review of the entire case study environmental impact assessment document assigned to your group. In this exercise, you will carry out your management plan, conduct the review, and prepare a comment letter discussing the findings from your review.

You must actually write out and be prepared to read the introductory paragraph of your comment letter (you need not write nor read an entire letter). Your introductory paragraph should summarize your overall evaluation of the document. In addition, on a blank flip chart, record specific recommendations that you would like to see carried out by the project proponent, and be prepared to present them to the class.

During your group report, your group should be prepared to discuss:

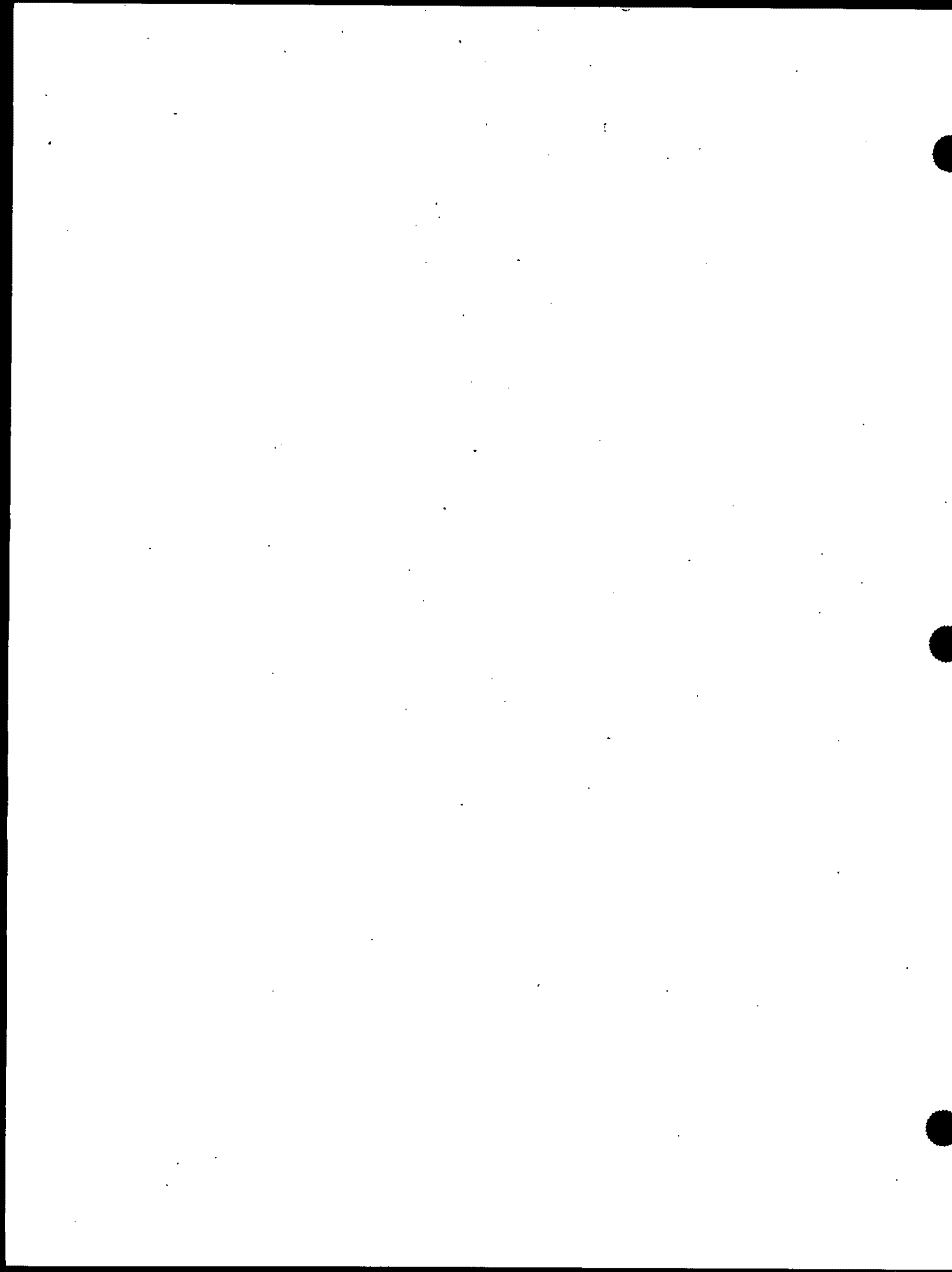
- Your management approach, assigned roles, and the strengths and weaknesses of your management approach;
- Any new issues you identified conducting the review this time;
- The types of comments you deemed significant, whether there were different opinions in your group, and why;
- The types of issues you had with the integrity of the document and analysis;
- The types of mandatory actions you considered;
- What became clearer when you read the document as a whole instead of in parts; and
- How the different sections related.

You will have a total of 15 minutes to present your comment letter, findings, and answer questions.



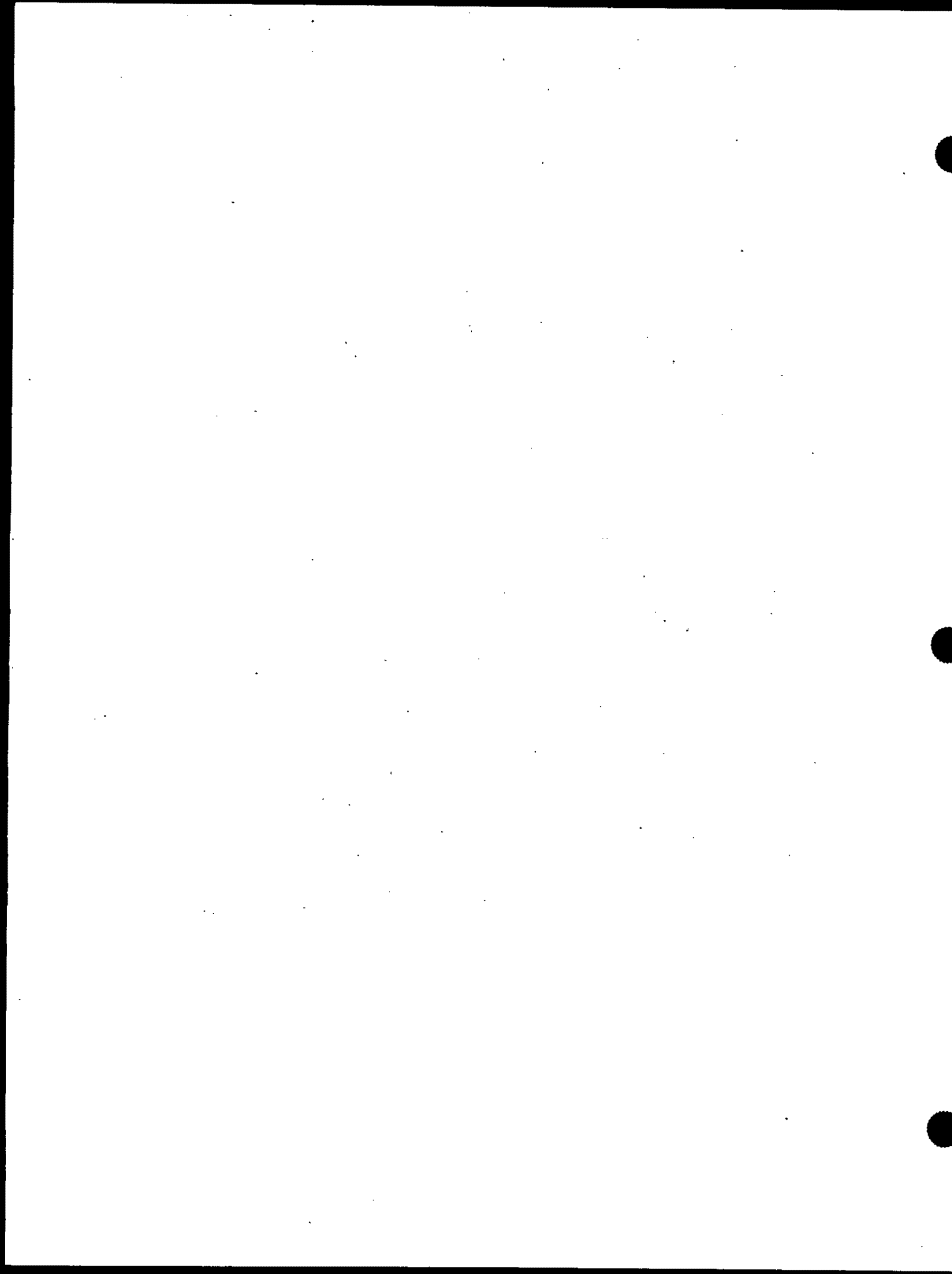
ROAD MAP FOR RECORD OF DECISION PREPARATION

- Re-state the purpose and need
- Support preferred alternative and justify
 - Meets purpose and need
 - Either preferred environmentally or meets purpose and need better than other alternatives
 - Meets legal requirements
- Demonstrate all potentially adverse impacts from the selected alternative were fully considered
- Demonstrate benefits of proposed action outweigh adverse impacts
- Demonstrate that implementation of the project will be environmentally acceptable
- Clearly State mitigation and continuing responsibilities



ROAD MAP FOR MITIGATION PLAN PREPARATION

- Proposes specific mitigation measures:
 - All (significant) adverse impacts
 - All primary, secondary, cumulative adverse environmental impacts
 - All phases of the project
 - All relevant environment types (natural and human)
- Where appropriate, proposes mitigation measures most desirable in hierarchy
- Provides sufficient detail relative to the significance of each environmental impact
- Includes technically and financially feasible measures
 - Financial/other resources
 - Socially and culturally acceptable
- Includes implementation plans, schedules and interim milestones, and timing consistent with other factors
- Identifies responsible parties committed to implement the plan



MITIGATION PLAN

ACTION:

SCHEDULE:

COSTS/BENEFITS:

FEASIBILITY:



ACTION	WHO	WHEN	SPECIAL RESOURCES

