

Lecture 16 overview

1. Types of reviews
2. EPA review
3. Review procedures
4. Format specifications
5. Strategy for review
6. NEPA checklists

Review procedures

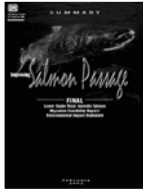
Goals:

1. Become familiar with project
2. NEPA compliance
3. Clearness & completeness
4. Validity & accuracy of information

EIS Format

Cover sheet
Table of contents
Summary
Purpose of and need for action
Alternatives
Affected Environment
Environmental Effects
List of preparers
Appendices

Cover Sheet



List of lead & cooperating agencies;
Title of the proposed action,
Proposed action's location;
Name, address, and phone number of an
agency employee with additional information;
Designation as a draft or final document;
Abstract of the EIS;
Date by which comments must be received.

Purpose & Need

Underlying purpose and need to
which the agency is responding in
proposing the alternatives
Often includes legal authority &
mandates

Alternatives

"Heart" of EIS
Must consider *reasonable* alternatives to
proposed project
Two kinds:
1. Alternative approaches
2. Range of alternatives
Should indicate preferred alternative

Alternatives

Preferred alternative: an alternative that fulfills its statutory mandate while giving consideration to economic, environmental, technical, and other factors

The preferred alternative may be the proposed action, but it need not necessarily be so.

Affected Environment

Area affected or created by the alternatives considered

Description must be sufficient to understand the alternatives' environmental effects

Must establish *status quo*

Environmental Effects

Effects of each alternative on affected environment

Effects: standard format

Alternative 1:

- Affected environment 1
- Affected environment 2

Alternative 2:

- Affected environment 1
- Affected environment 2

Environmental Effects

Effects of each alternative on affected environment

Should include detailed information

May include baseline data

May include mitigation measures

List of Preparers

Names and qualifications of people who were responsible for preparing the EIS (including background papers);

Should include individual members of consulting firms;

Appendices

Supplemental & detailed information

– Must include reference in main body

Responses by the agency to comments

Incorporation of references in the body of the EIS

Should be circulated with the EIS or be available upon request

Strategy for review

1. Read the summary
2. Examine table of contents
3. Conduct a checklist
4. Study content
5. Examine area of expertise

Summary

What is the purpose & need of project?

What are the major impacts?

Are the alternatives reasonable?

Is there an attempt to avoid or minimize impacts?

Examine table of contents

1. Familiarize yourself with general flow and topics covered
2. Look at alternative considered, process used to generate them
3. Look at affected environment, major impacts
4. Narrow focus to areas of expertise

Conduct checklist

NEPA checklist on website

- EA and EIS versions
- Major difference for EA:
 - Determination of significance (FONSI)
 - Role of mitigation
 - Adoption of studies/data by reference

Study content

Logic & substantiation of alternatives
Evaluation of significance (EAs)
Design of baseline studies
Efficacy & efficiency of mitigation

Examine area of expertise

Explore more deeply in area of expertise

Area of special concern:

- Legal conflicts
- Incorrect, misleading or omitted information
- Illogical or arbitrary conclusions
- Experimental design flaws of baseline studies or mitigation plans

Environmental assessment process

- A. Define the action
- B. Threshold determination
- C. Develop alternatives
- D. Identify activities & attributes
- E. Solicit comments
- F. Reevaluate
- G. Evaluate impacts
- H. Consider mitigation

Planning
prior to
DEIS

A. Define the action

1. Identify purpose & need of project:

- Very important step
- Make clear underlying reasons
- Helps frame possible alternatives

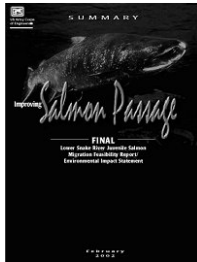
A. Define the action

2. Identify potential impacts to physical environments
3. Evaluate project relative to NEPA and CEQ regulations
 - Examine agency lists of actions

A. Define the action

Example:

Lower Snake River
Salmon Migration &
the Snake River
Dams



A. Define the action



- ESA listing of Snake River salmon by NMFS:
- 1991: Sockeye
 - 1992: Spring/summer/fall Chinook
 - 1997: Steelhead

Species recovery plan:

- Passage through dams one of factors contributing to decline

A. Define the action



1995 biological opinion to ACOE:

- Existence of dams jeopardizes survival of salmon
- Cumulative mortality of juveniles an important contributor

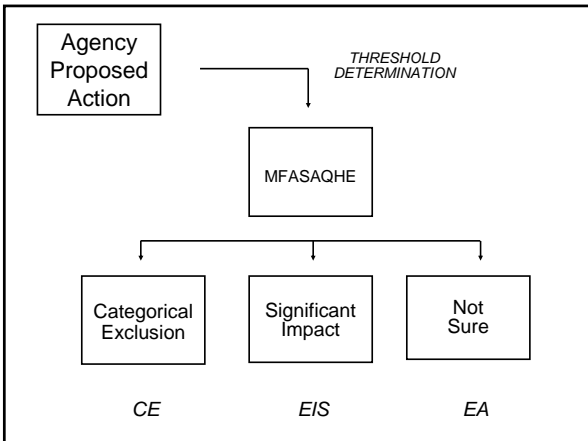
Need to improve migration of juvenile salmon past dams

- Consider changes in operations or structural changes

B. Threshold determination

Evaluate project relative to:

- MFASAQHE
- Agency lists of projects with:
 - Categorical exclusions
 - Significant impacts
 - Uncertain impacts



EISs

Actions that normally have *significant* impacts

Any agency may *opt* to prepare an EIS, even if not required, if it furthers the purposes of NEPA

Categorical exclusions (CX)

- Compare projects to agency list of CXs
- Evaluate goodness-of-fit to category
- Check for *extraordinary circumstances*:
 - Substantially controversial by federal, state or local agencies
 - Disagreement among experts
 - Strong public controversy

Environmental Assessments

Everything else

Compare projects to agency list of EAs :

- often very general categories
- evaluate on a case-by-case basis

B. Threshold determination



- Major – Yes (operations & structure)
- Federal – Yes (ACOE control, permit, fund)
- Action – Yes (mandate to act)
- Significantly – Yes (see next)
- Affecting – Yes (broad effects)
- Quality Human Environment – Yes (river, fish & people)

B. Threshold determination



- ACOE publication ER 200-2-2
- Actions normally requiring an EIS:
- Feasibility reports for authorization and construction of major projects;
 - Proposed changes in projects which increase size substantially or add additional purposes;
 - ⇒ – Proposed major changes in the operation and/or maintenance of completed projects.

C. Develop Alternatives

- “Heart” of environmental analyses
- Decision-making and planning tool:
- Goal is to consider *environmental consequences* of different approaches
 - Frame issues around project relative to making a decision
 - Stop-and-Think!

C. Develop Alternatives

Different types of alternatives:

- Focus on solutions to underlying need
- Consider solutions inside & outside of jurisdiction
- Incorporate opposing viewpoints on project

C. Develop Alternatives

Consider *reasonable* alternatives to meet purpose & need (often 3-6) :

- Too few: similar alternatives provide no flexibility to protect the environment
- Too many: not focused on project, divert attention away from purpose & need

C. Develop Alternatives

Goal: comparative analysis

- Analyze impacts of actions using different alternatives
- Use '*no action*' as baseline condition
- Indicate preferred alternative as soon as it is *reasonable* to facilitate public disclosure

C. Develop Alternatives



1996 ACOE System Configuration Study:

- Response to 1995 biological opinion
- Selected alternatives:
 - Existing conditions (no action)
 - Three alternatives for dam drawdown:
 - Seasonal (spillway or natural levels) & permanent
 - System improvements

D. Activities & Attributes

Understand types of activities to be expected:

- Categorize into functional areas
- List activities within categories
- Outline implementation plan

D. Activities & Attributes



1. Current fish programs
2. Structural modifications
3. Operational elements
4. Miscellaneous elements

D. Activities & Attributes

Examine attributes likely to be affected: (Jain, Appendix B)

- General environmental categories
- Factors of importance within categories
- Methods to measure attributes

D. Activities & Attributes

Earth, air, water
Plants & animals
Energy & natural resources
Environmental health
Land & shoreline use, housing, light & glare
Recreation, aesthetics historical & cultural preservation
Transportation, public services, utilities

D. Activities & Attributes



Geology and soils
Air quality
Water & aquatic resources
Aquatic & terrestrial resources
Cultural resources & Native American Indians
Transportation
Electric Power
Agricultural, municipal, & industrial water uses
Land ownership and use
Recreation, tourism & social resources
Aesthetics

E. Solicit Public Comments

Two goals:

- Open process to public disclosure
 - Required by NEPA & CEQ
- Help identify & address concerns
 - General public & interest groups
 - Federal, state, local agencies & Tribes
- Use *Public Scoping* meeting
- Publish in *Federal Register*

E. Solicit Comments



NOI in *Federal Register* (June 1995)

Four Scoping meetings (July 1995):

1. Spokane & Pasco, Washington
2. Boise & Lewiston, Idaho

Invited Audiences:

- Federal, State, local agencies
- Native American Tribes
- Other interested organizations
- General public

E. Solicit Comments



Issues identified:

Consider:

- range of alternatives
- people's preference for alternative(s)
- need for a drawdown test
- loss of river services during drawdown

Evaluate:

- juvenile fish transport program
- cost-benefit of drawdown

Determine other factors that affect salmon

Coordinate with other agencies

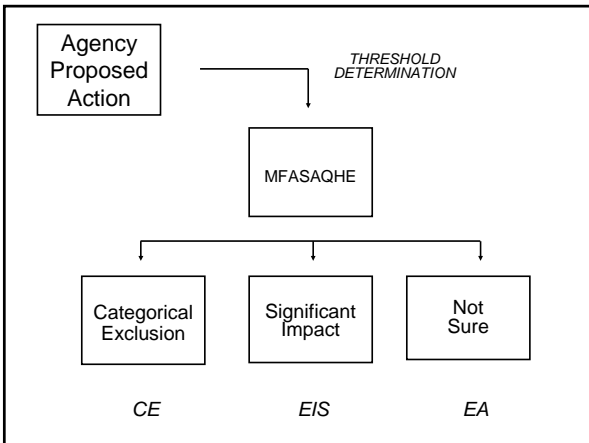
Offer analysis based on sound science

F. Reevaluate

Evaluate alternatives, activities & attributes in light of scoping:

- new concerns & issues?
- need to focus on new areas?
- need to develop new alternatives?

Make modifications of plan



F. Reevaluate



New alternatives developed:

1. Existing Conditions
2. Maximum Transport of Juvenile Salmon
3. Major System Improvements
4. Dam Breaching (drawdown)

G. Evaluate impacts

Using activities & attributes consider for each alternative:

- Identify potential impacts (+/-)
- Focus on significant adverse effects
- Evaluate consequences of project on attributes
- Design baseline studies to quantify impacts
- Implement baseline studies

G. Evaluate impacts

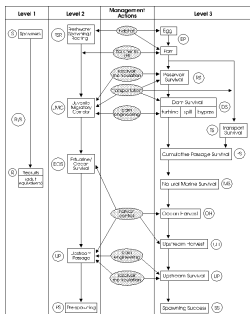


PATH analysis:

- Plan for Analyzing & Testing Hypotheses
- Federal, State & Tribal co-chairs

Evaluated alternatives using quantitative model

G. Evaluate impacts



Outputs probabilities of salmon survival under different options

H. Consider mitigation

Mitigation:

- Avoidance of activities or areas
- Limits on actions or effects
- Repair or replacement of resources

Begin developing documents

- Environmental assessments
- Environmental Impact Statements

Next Time. . .

- EAs and evaluation of significance
