Live Webinar:

Assessing Indirect Effects and Cumulative Impacts Under NEPA

May 19, 2011

2:00pm to 3:30pm EDT

Welcome to the Webinar!

Shannon Eggleston

Program Director for Environment
AASHTO

U.S. Department of Transportation
Federal Highway Administration

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Practitioner's Handbooks

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- Preparing an Administrative Record
- Responding to Comments on an EIS
- NEPA for Toll Lanes and Toll Roads
- Tracking Environmental Commitments
- Use of Community Advisory Committees
- Section 106 Consultation
- P&N/Range of Alternatives
- Environmental Management Systems
- SAFETEA-LU Section 6002
- Linking Planning and NEPA
- Section 4(f)
- Stormwater Management Programs

Just Published

- Indirect & Cumulative Impacts
  - Authored by:
    - Bill Malley, Perkins Coie LLP
    - Larry Pesesky, Louis Berger Group

Coming Soon

- Section 404(b)(1) Guidelines

To download them, go to:
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Click on the link for "Practitioner's Handbooks"...

Advisory Group for IECI Handbook

- Diverse membership representing FHWA, FTA, State DOTs, transit agencies, and MPOs

USDOT

Lamar Smith - FHWA

Brian Smith - FHWA

Kevin Moody – FHWA

Robin Smith – FHWA

Charles Goodman – FTA

Joe Ossi - FTA

State DOTs

Cindy Adams – CA

Don Sparklin – MD

Sandy Beaupre - WI

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Katie Kurgan

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Transit Agencies & MPOs

James Irish
Sound Transit (Seattle)

Suraya Teeple
Jacksonville Transp. Auth.

Don Shanis
MPO - Philadelphia

Craig Casper
MPO – Colorado Springs

Today's Webinar

- Presentation: "Assessing Indirect and Cumulative Effects under NEPA"
  - Bill Malley, Perkins Coie LLP

- Q&A Session with FHWA & State DOT Experts
  - Moderator: Bill Malley
  - Panelists:
    - Lamar Smith, FHWA Resource Center
    - Tracy White, FHWA Chief Counsel's Office
    - Cindy Adams, California Department of Transportation

Questions for the Panel?

- Due to the number of attendees, all attendees are muted during the webinar.
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Presentation:
Assessing Indirect and Cumulative Effects under NEPA

Bill Malley

PERKINS COIE LLP

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- Goals of the Handbook:
  - Provide a simple summary of key concepts
  - Flag important issues to consider
  - Recommend approaches, but do not prescribe
  - Link to other resources

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What this presentation covers

- Indirect Effects
- Cumulative Impacts
- Documentation / Legal Sufficiency
- Planning-NEPA Linkage

A few caveats …

- Terminology
  - 'Effects' and 'impacts' are synonyms.
- Guidance
  - The handbook is consistent with CEQ guidance and State DOTs' guidance.
  - Specific 'steps' may differ; concepts are the same.
- Methodologies
  - The handbook is not a manual; it describes approaches, but not specific models and methods.

Practical Tips:
Indirect Effects Analysis

What is an "Indirect Effect"?

- ***Indirect effects*** are caused by the project or plan, but are separated from direct effects by time and/or distance. Indirect effects include induced growth and related environmental impacts.

Types of Indirect Effects

- Two types of indirect effects:
  - Induced growth
  - Encroachment/alteration
- Handbook focuses on **induced growth** – why?
  - Frequent issue on highway and transit projects
  - Often requires a major commitment of resources
  - Lack of consensus on methodologies
  - Frequent litigation issue

Getting Started

- Is an indirect effects analysis required?
- What level of effort is needed?
- What methodology will be used?

Need for the Analysis

- *When is an indirect effects analysis needed?*
  - Every EIS must consider direct, indirect, and cumulative effects.
  - An EA may need to consider indirect effects –
    - Basis for issuing a FONSI is "no significant impacts"
    - If a project may have indirect effects, an EA would need to assess their significance.
  - A CE generally does not include an indirect effects analysis, but:
    - Indirect effects, if significant, would prevent use of a CE.

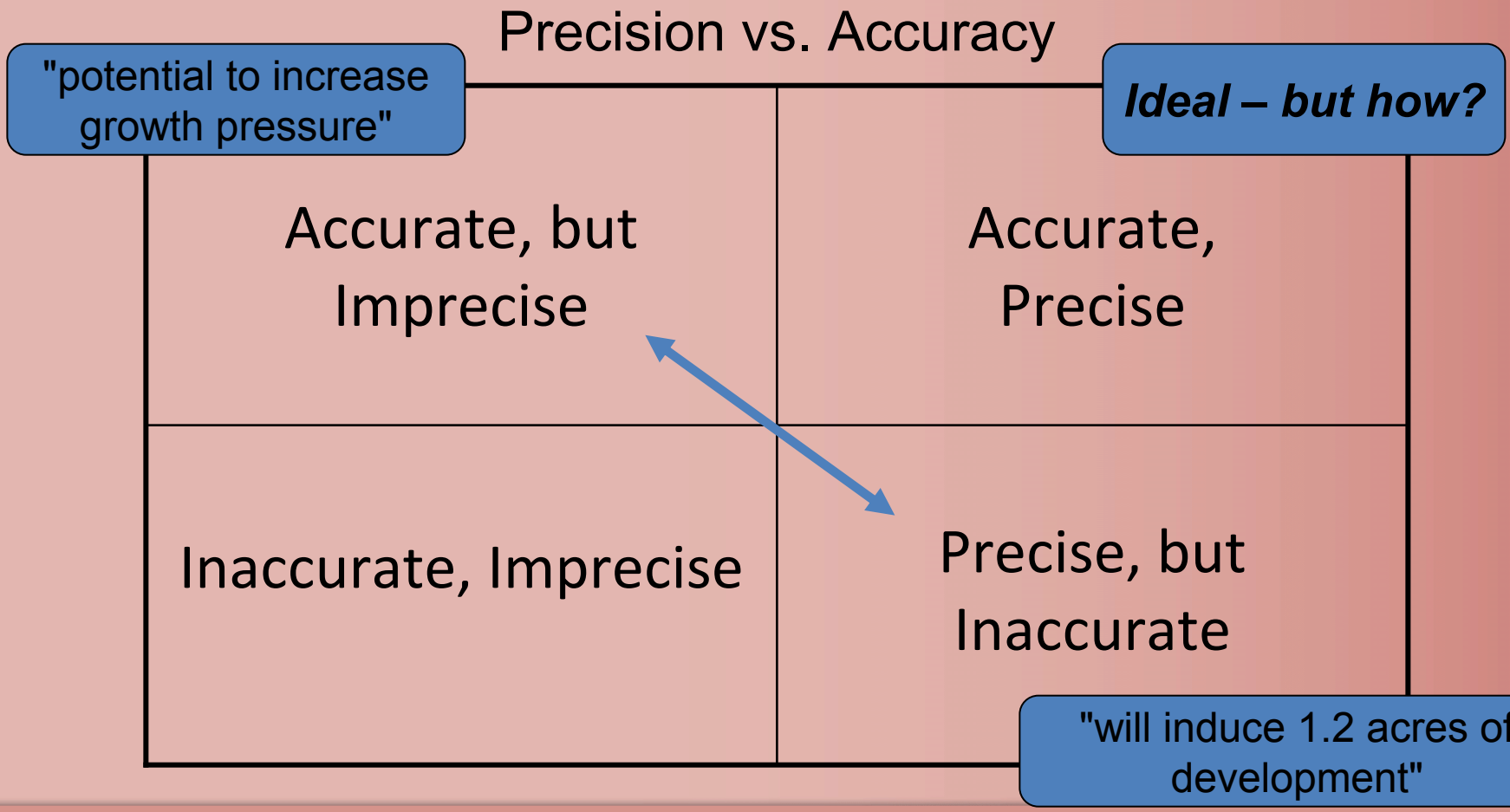
Level of Effort

- *What level of effort is likely to be needed?*
- These factors, individually or in combination, may indicate the need for in-depth study:
  - Capacity expansion
  - New access points
  - Developable land available
  - Lack of other restrictions on development
  - Weak land use controls
  - Sensitive/ threatened environmental resources

Choice of Methodology

- *What methodology should be used?*
  - No standard FHWA or FTA method.
  - Threshold question: Qualitative or quantitative?
    - Qualitative: Predict changes in development trends, pressures, dynamics.
    - Quantitative: Predict the amount of additional development that is expected to occur, and the location.
  - If quantitative, choose:
    - Modeling? Expert panel?

Methodology Trade-Offs



Quantitative is not necessarily better…

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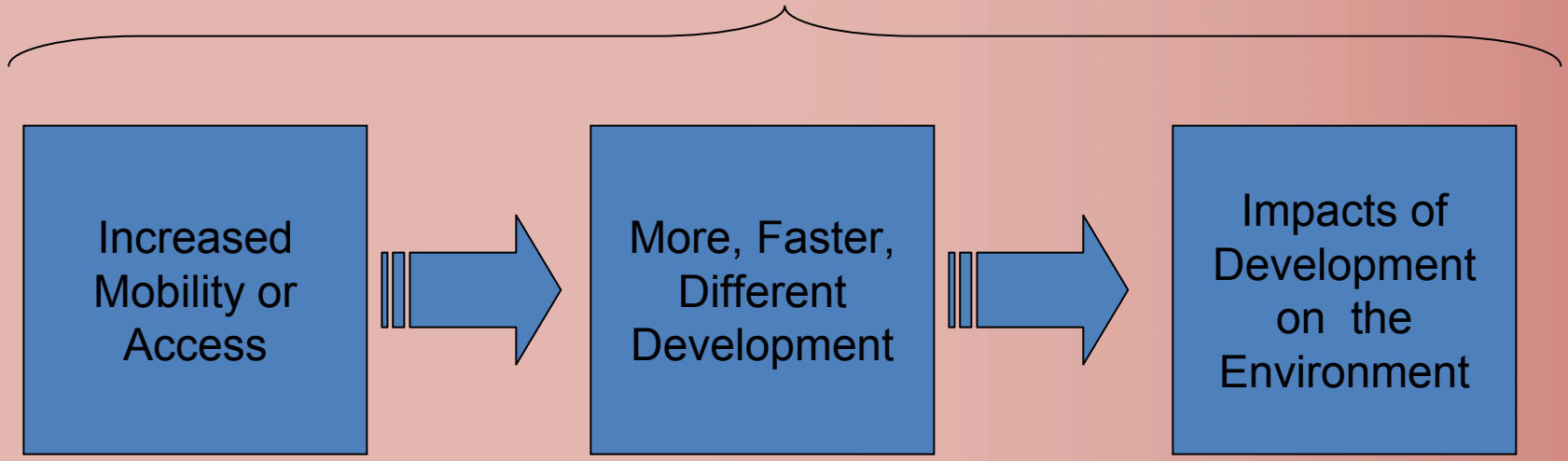
Analysis of Induced Growth

- Regardless of method, any analysis of induced growth seeks to answer the same questions:
  - Will this project influence growth patterns?
  - If so, what impacts will result from that growth?
- The focus of your analysis is the chain of causation …

Induced Growth

"Chain of causation"



Increasing uncertainty

At what point it is "unforeseeable"?

Analysis Steps

- Four-step framework for analysis:
  - Assess potential for increased accessibility
  - Assess potential for induced growth
  - Assess potential impacts of induced growth
  - Assess potential minimization/mitigation
- Note: This is just one possible approach; not intended to supplant other methods.

Analysis Steps

1. **Assess Potential for Increased Accessibility**
   - Will the project improve travel times? Provide new access points? Create new destinations?
     - If so, what is the magnitude of the change?
     - Are there important differences among alternatives in terms of the mobility benefits they provide?
     - Are there significant uncertainties in the projections?
       - Limitations of the model
       - Unresolved policy issues

Analysis Steps

2. Assess Potential for Induced Growth

- Will increased accessibility heighten development pressures? If so, where?
- How will other factors affect growth – e.g.,
  - availability of developable land
  - market demand
  - land use policies
  - Infrastructure
- What changes in growth patterns is *the project* likely to cause? How certain are your projections?

Analysis Steps

3. Assess Potential Impacts of Induced Growth

- What resources are present in the study area?
- If induced growth does occur, what kinds of resources might be impacted?
- Are there laws or other restrictions that might protect those resources (e.g., zoning?)
  - If so, are they strong enough to withstand development pressures?
- How certain are your projections of impact?
  - Can you identify likely impacts to specific resources?

Analysis Steps

4. Assess Potential for Minimization & Mitigation

- *Consider* measures to minimize and mitigate impacts resulting from induced growth
- If implementation is outside the control of transportation agencies, note who would be responsible for implementation.
- Example: Wisconsin DOT guidance recommends
  - *Matrix listing each min/mit measure, who has authority to implement, and likelihood of implementation.*

Practical Tips for Cumulative Impacts Analysis

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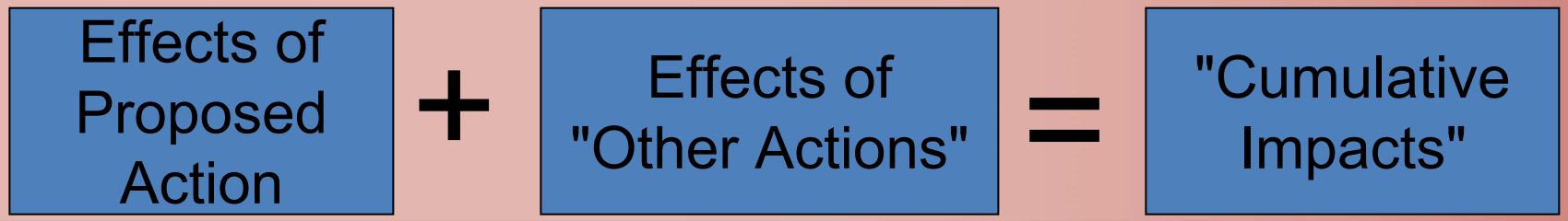
What is a "Cumulative Impact"?

- ***Cumulative impacts*** *are the aggregate result of the incremental direct and indirect effects of a project or plan, the effects of past and present actions, and effects of reasonably foreseeable future actions by others on resources of concern.*



What is a Cumulative Impacts *Analysis?*

- *The resource, not the project, is the focus.*
- The analysis should:
  - Current condition of the resource
    - Is it healthy? Improving? Declining?
  - Changes in the resource over time
    - Past trends in health of the resource
    - Actions or events that have affected the resource
  - Foreseeable effects on the resource
    - From the proposed action
    - From other actions

CEQ Guidance

- CEQ, "Considering Cumulative Effects under the National Environmental Policy Act" (1997)
  - "Count what counts"
  - Use scoping to identify significant cumulative effects issues
    - With resource agency involvement
  - Provide in-depth analysis on those few issues, rather than superficial analysis on many.

Getting Started

- What are the significant cumulative impacts issues?
- What is the appropriate scope of analysis for those issues?
- What level of detail is appropriate – i.e., how in-depth?

Focus of Analysis

- *What are the significant cumulative impacts issues?*
  - Which resources are most prevalent, sensitive, and/or threatened?
  - Which resources are most affected by the project?
- Be selective – not a laundry list.
  - Allows for a more thorough consideration of the resources that *are* selected for analysis.

Study Area and Level of Detail

- *What study area (or areas) will be used in the analysis of cumulative impacts?*
  - May be different for each resource studied in the cumulative impacts analysis
- *What level of detail is appropriate?*
  - Take into account factors such as:
    - Overall size, complexity, and impact of the project
    - Sensitivity of affected resources
    - Degree of public concern/opposition

Analysis Steps

- Five-step framework for analysis:
  - Describe resource conditions and trends
  - Summarize effects of the proposed action
  - Describe effects of 'other actions'
  - Estimate combined effects of proposed action and other actions
  - Assess potential minimization/mitigation
- Note: This is just one possible approach; not intended to supplant other methods.

Analysis Steps

1. **Describe Resource Conditions and Trends**
   - Geographic and temporal scope
   - Current conditions – "snapshot"
     - How healthy is the resource today?
   - Trends
     - How has the condition of the resource changed over time? Is the resource improving or declining?
     - What events have contributed to the improving or declining health of the resource?

Analysis Steps

2. Summarize Effects of the Proposed Action

- Cumulative = *combined* effects of the proposed action and other actions.
- Therefore, first step = summarize the direct and indirect effects of the proposed action.
  - This information has already been developed elsewhere in the EIS; just summarize it here.
- This information becomes a building block for the cumulative impacts analysis.

Analysis Steps

3. Describe "Other Actions" and Their Effects

- Past actions:
  - Describe past trends in condition of resource
  - Need not describe individually (CEQ, 6/24/2005 memo)
- List "other actions" if reasonably foreseeable
  - Include transportation and non-transportation
- Estimate impacts of those other actions
  - Use best available existing data
  - Need not describe impacts of each action individually

Analysis Steps

4. Estimate Combined Effects on Key Resources

- Estimate the aggregate impact of the proposed action and other actions on each resource
  - Conclusions may be qualitative or quantitative
  - Should acknowledge uncertainties in forecasts
  - Take into account health/condition of resource when describing effects – e.g, could a small incremental impact result in jeopardy to the resource?

Analysis Steps

5. Consider Minimization and Mitigation

- *Consider* ways to minimize and mitigate effects of the proposed action, taking into account the results of the cumulative effects analysis
  - This does not mean "mitigating for others' effects".
  - It *does* mean considering the condition of the resource when deciding how to mitigate effects of your action.
- May also discuss actions that others may take to mitigate the effects of their actions.
  - If so, address likelihood of implementation.

Documentation and Legal Sufficiency

Documentation

- Location in EIS:
  - Separate analyses of indirect effects and cumulative impacts help to show that each has been adequately studied.
  - If combined, extra care is needed to avoid blurring the analyses and conclusions.
- Use of Appendices:
  - Include supporting information in appendices or technical reports, to make EIS itself more readable

Quality Documentation

- Three keys to adequate documentation*
  - ***Explain the methodology*** – e.g., explain choice of qualitative or quantitative; acknowledge any limitations of the chosen methodology.
  - ***Provide factual support*** – avoid a data dump; include data that is relevant and up-to-date; explain, don't just summarize.
  - ***Use clear reasoning –*** make sure a non-technical reader can see and understand the logic that supports your conclusions.

** TRB, Legal Sufficiency Criteria for Adequate Indirect Effects and Cumulative Impacts Analysis (2008)*

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"Reasonableness" Check

- "Test" the results for reasonableness …
- Depending on the study, this may include:
  - Using multiple analysis methods, so you are not too reliant on any single approach
  - Conducting sensitivity analyses
  - Seeking input from specialists and stakeholders
  - Looking for counter-intuitive results
  - Comparing future projections to past trends

"Does it make sense? Is it credible?"

Using the Planning Process to Conduct IECI Analyses

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Planning-Environment Linkages

- *Can the planning process be used to prepare indirect and cumulative effects analysis for use in the NEPA process?*
  - Yes, subject to several conditions.
  - Likely provides a *foundation* for NEPA analyses; some additional work is likely to be needed at the project level.

Planning Regulations

23 CFR Part 450, Appendix A:

To be used in the analysis of indirect and cumulative impacts, such information should:

(a) Be sufficiently detailed that differences in consequences of alternatives can be readily identified;

(b) Be based on current data (e.g., data from the most recent Census) or be updated by additional information

(c) Be based on reasonable assumptions that are clearly stated; and/or

(d) Rely on analytical methods and modeling techniques that are reliable, defensible, and reasonably current.

Ways to Use the Planning Process

- The planning process can be used to:
  - Develop a vision for growth
    - Example: Scenario planning can be used to evaluate potential land use and transportation policies.
  - Collect data
    - Example: Gather data on land use plans and growth trends; gather data on key resources.
  - Analyze trends
    - Region-wide growth trends
    - Corridor-level growth trends

Use in NEPA Process

- Decision on whether it can be used in NEPA is made *in the NEPA process*, by the federal lead agency (e.g., FHWA).
- Corridor-level analyses are more likely to approximate the level of detail required in the NEPA process.
- Some additional project-level analysis is likely to be required in the NEPA process.

For Additional Information

- See "Reference Materials" section of Center's website for this Handbook:
- http://environment.transportation.org/center/products_programs/practitioners_resources.aspx?id=11

Thank You!

And now, time for the Q&A portion of this webinar…

Question and Answer Session

- Moderator: Bill Malley
- Panelists:
  - Lamar Smith, FHWA Resource Center
  - Tracy White, FHWA Chief Counsel's Office
  - Cindy Adams, California Department of Transportation

If you want to submit a question:

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