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# **External Peer Review Panel**

## **NESP Navigation Economic Re-evaluation**

**Planning Center of Expertise for Inland Navigation**  
**Wesley Walker & Rebecca Soileau**

*Presented to:*

**Inland Navigation CoP Workshop**

**Louisville, KY**

**20 September 2007**

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*One Team: Relevant, Ready, Responsive and Reliable*



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# Objective & Background



**Background**— The Corps of Engineers study team is scheduled to produce an Interim Report by December 2007 which is focused on the re-analysis of the National Economic Development (NED) benefits of the recommended plan for navigation efficiency, but will also consider the other three accounts: Regional Economic Development (RED), Other Social Effects and Environmental quality.

**Objective** – To secure external technical expertise needed for the review and evaluation of the latest forecasting model inputs, outputs, and documentation relative to the UMR-IWW Inland Navigation System.



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# PCXIN



- **Planning Center for Expertise for Inland Navigation....**

With responsibility for establishing guidance and providing oversight of External Peer Review and Independent Technical Review

- Wes Walker (Peer Review Manager)
- Rebecca Soileau (External Peer Review Manager)
- Mark Hammond (Independent Technical Review Manager)



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# Reevaluation PDT

## Members

Rich Worthington (HQ)  
Terry Smith (MVD)  
Chuck Spitzack (MVR)  
Rich Astrack (MVS)  
Scott Whitney (MVR)  
Jeff DeZellar (MVP)  
Rich Manguno (MVN)  
Ken Barr (MVR)  
Jeff Stamper (MVS)  
Jack Carr (MVR)  
Dave Kelly (MVS)  
Jeff McGrath (MVP)  
Mary Hanson (MVR)

Vertical Team - HQ  
Vertical Team - MVD  
Regional PM  
PDT Leader  
Project Manager  
Project Manager  
Economics TM  
Environmental TM  
Engineering TM  
Economist  
Economist  
Economist  
Writer - Editor



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# Panel Selection Process



- **Developed Work Outline**
- **Request for nominations sent to State and Federal Partners**
- **Identified potential External Candidates from nominations**
- **Requested vitas and statement of interest**
- **Nomination list based on special expertise, level, and breadth of experience**
- **Selection approval by PCXIN**



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# External Peer Review Panel

- **John Beghin** Iowa State University
  - Marlin Cole Chair in international agricultural economics
  - Co-director of the Food and Agricultural Policy Research Institute (FAPRI)
- **Stephen Fuller** Texas A&M University
  - Regents Professor in the Department of Agricultural Economics.
  - Former NRC panel member reviewing Navigation Study
- **Alexander Metcalf** President of (TEMS)
  - Transportation Economics & Management Systems, Inc.
- **Darryl Ray** University of Tennessee
  - Director of the Agricultural Policy Analysis Center
- **Denver Tolliver** North Dakota State University
  - Associate Director and Senior Research Fellow at the Upper Great Plains Transportation Institute

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# Review Process



- EPR Panel conducts individual reviews of each document
- Comments are returned to the PCXIN for distribution to PDT for responses.
- Comments and responses are returned to the EPR Panel Members via the PCXIN
- EPR panel members attend workshops on key products with ECC and ITR members
- Each EPR Panel member submits a letter report following review of a preliminary draft of the Interim Report and the panel produces an Executive Summary.



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# Products for Review



- **CRA 3 - Through Feb 17, 2007**
  - 1. Draft Interim Report Outline**
  - 2. Survey Model Documentation**
  - 3. Long-Term Forecasting of Commodity Flows on the Mississippi River; Applications to Grains and World Trade (initial Review)**

*Drs. William W. Wilson, Eric DeVuyst, Skip Taylor, Bruce Dahl & Won Koo, North Dakota State University;*



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# Products for Review



## CRA 4

- 1. Long-Term Forecasting of Commodity Flows on the Mississippi River; Applications to Grains and World Trade (Final comments)**

***William Wilson et al.***

- 2. Development of Demand Curves for Grain and non-grain commodities;**

***Kenneth Train and Wesley Wilson***



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# Products for Review



## **CRA4 cont. :**

- 3. Corps developed Scenarios for Grain Forecasts;**
- 4. Non-Grain Traffic Forecast;  
*Louis Berger Associates***
- 5. Rail Capacity Sow and Study; *University of Tennessee Center for Transportation Research***
- 6. Draft Interim Report**



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# Meeting Schedule



- **Introductory Meeting of EPR Panel**      **Nov 12-13**
- **Grain Forecasting Workshop**      **Feb 14-15**
- **Transportation Demands (elasticity),  
Non-grain Forecasts,  
Rail Capacity and Water Compelled Rates**      **Jun 18-19**
- **Draft Interim Report &  
Survey Model Results**      **Aug 29-30**
- **Drafting Executive Summary**      **Oct 16**



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# EPR Administration



## ■ Contracting:

- Gov't Estimate                      \$371,550
- Labor & Travel                      \$289,051

## ■ Gov't :

- Meeting Venues, Travel & Per Diem, Labor, Presenters,

## ■ Issues:

- Insufficient contracting mechanisms
- CRA's create a burden of multiple negotiations for each option
- New PCX to COR/ Tech POC relationships



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# EPR Administration



## ■ Issues Cont.:

- EPR panel internal “leadership”
- Balance to achieve Effective communication and appropriate separation of EPR , PDT, and stakeholders
- Clear concept of the purpose for the external review.



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# **EPR and Stakeholder Meeting Purposes**

- **Help stakeholders and External Peer Reviewers to have as clear an understanding of the models, including assumptions, parameters, and analysis techniques, as possible.**
- **February Global Grain Model workshop: Solicit stakeholder input on model assumptions and variable ranges to be considered in scenario development by the PDT.**
- **June Meeting: Presentations and discussion of models. Record comments from the discussion sessions for use by the PDT.**
- **August Meeting: Introduction to Draft Interim Report and Survey Model Results.**



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# Interim Report EPR and Stakeholder Meetings Presentations



- **Global Grain Model:**
  - *Bill Wilson, North Dakota State University, Fargo*
- **Transportation Demands for Agricultural and Non-Agricultural Products:**
  - *Wesley Wilson, University of Oregon, Kenneth Train, University of California at Berkeley*
- **Briefing on other Re-evaluation efforts and models:**
  - *Chuck Spitzack & Rich Manguno, USACE*
- **Non-grain forecasts:**
  - *Anatoly Hochstein & Nikhil Bhandari, Louis Berger Group Inc.*



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# Interim Report EPR and Stakeholder Meetings Presentations



- **Rail Capacity and Water Compelled Rates:**
  - *Mark Burton, University of Tennessee*
- **Transportation Rates:**
  - *Chrisman Dager, Tennessee Valley Authority*
- **Survey Model and Application:**
  - *Rich Manguno, COE*
- **Briefing on the Draft Interim Report:**
  - *Chuck Spitzack, Rich Manguno, Ken Barr, Scott Whitney, Jeff McGrath, and Jack Carr : USACE*



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# EPR Meeting Comments



- **Can the EPR contribute to the process of how elasticities are going to be used by the PDT?**
- **The EPR panel needs to get rough drafts of models and an overview of how the models will work together early enough in the process that their comments can be used constructively.**



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# EPR Meeting Comments cont.



- **General -**

- Before going beyond this modeling exercise, describe the type of model that is needed for the future. Use lessons learned in this process.
- The COE needs to decide if it is going to expand beyond existing constraints to take a broader look at the relationships of water to other modes of transit.



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# EPR Meeting Comments Cont.



## ■ Modeling Suggestions:

1. Have the PDT and modelers do a better job of stating their working assumptions.
2. Have an explicit accounting and acknowledgement of the model limitations.
3. Perform sensitivity analyses to determine the most sensitive variables (key parameters).
4. Extract the key parameters that drive the models and build in more time to investigate them and their relationships to the system and how their responses affect the modeling outcomes.





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# Timing of Peer Review



- “As a general rule, it is most useful to consult with peers early in the process of producing information. For example, in the context of risk assessments, it is valuable to have the choice of input data and the specification of the model reviewed by peers before the agency invests time and resources in implementing the model and interpreting the results. “Early” peer review occurs in time to “focus attention on data inadequacies in time for corrections.”
- OMB’s Final Information Quality Bulletin for Peer Review Dec. 2004



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# Timing of Peer Review



- **“The EPR should begin as early in the study process as possible and should be considered an integral part of the continuum of independent technical review.”**
- **Standard Operation Procedure Peer Review of Inland Navigation Decision Documents**





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# Dr. John Beghin



## ■ Affiliation

- **Professor of Economics and Marlin Cole Chair in international agricultural economics at Iowa State University**
- **Co-director of the Food and Agricultural Policy Research Institute (FAPRI)**
- **Head of the Trade and Agricultural Policy Division of the Center for Agricultural and Rural Development**

## ■ Related Expertise

- **Trade Policy Analysis**
- **The interface between trade, the environment, and development**
- **Extensive modeling experience in international trade related to agricultural markets and the environment**



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# Dr. Stephen Fuller



## ■ Affiliation

- **Regents Professor in the Department of Agricultural Economics at Texas A&M University in College Station, Texas.**

## ■ Related Expertise

- **Agricultural transportation, marketing and international trade**
- **Research on: Panama Canal, UMRS freight transportation demands, railroad pricing**
- **Construction of spatial grain equilibrium models**
- **Effects of lock congestion on grain barge rates**



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# Dr. Alexander Metcalf



## ■ Affiliation

- **President of Transportation Economics & Management Systems, Inc. (TEMS)**
- **PhD in Transportation Economics from the London University**

## ■ Related Expertise

- **Internationally recognized authority in inter-modal and high speed rail economics, business planning, demand forecasting**
- **Economic and financial analysis and transportation models and systems.**
- **Developed passenger demand forecasting models that use the latest stated preference and behavioral analysis for demand forecasting**



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# Dr. Darryl Ray



## ■ Affiliation

- **Director of the Agricultural Policy Analysis Center, University of Tennessee**
- **The Blasingame Chair of Excellence in Agricultural Policy, professor of agricultural economics**

## ■ Related Expertise

- **Developing computer models for the U.S. crop agricultural sector and the agricultural commodity policy simulation model used by the U.S. Department of Agriculture.**



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# Dr. Denver Tolliver



## ■ Affiliation

- **Associate Director and Senior Research Fellow at the Upper Great Plains Transportation Institute of North Dakota State University**
- **Director of PhD program in Transportation & Logistics**

## ■ Related Expertise

- **Rail planner for the North Dakota Department of Transportation**
- **Highway and railroad planning and economic analysis**
- **Benefit-cost analysis**
- **Grain transportation**
- **environmental and energy impact analysis**