



STRATEGIC HIGHWAY RESEARCH PROGRAM

Delivering Capacity

Presented to

SHRP 2 Oversight Committee

December 2009

Challenges

- We must manage our existing roads for efficiency before we can make a strong case for expansion. DOTs and MPOs are being challenged to manage as well as build.
- The public wants input to solutions.
- Environmental expectations are ever higher. Five or more agencies are likely to have regulatory jurisdiction.
- Green house gas emissions are a new challenge. How do we respond?

More Challenges

- The negative impacts of highways outweigh the economic benefits in the public's mind. The case for benefits is not transparent.
- Delays plague delivery. The average delivery time is 13 years. The causes of delay are numerous and complicated
- More toll roads and partnerships are likely. Both can be controversial.

The SHRP 2 Capacity Charge from Congress

Develop approaches and tools for **systematically** integrating environmental, economic, and community requirements into the analysis, planning, and design of new highway capacity

The SHRP 2 Response

- Focus on how we make decisions
- Base it on successful highway deliveries; learn from failures too
- The evidence points to meaningful collaboration (consultation) with involved parties as one key element of success
- This is hard and appears costly. Is it as costly as delay?
- Develop a **systematic**, replicable way to approach collaborative decision making

How will Capacity Research Help Deliver Better Projects Faster?

- Collaboration/consultation with many parties is both required and unavoidable (SAFETEA-LU, Endangered species Act)
- Staff skill at collaboration in transportation and resource agencies is highly variable
- Agency recognition of the need is also highly variable.
- Guidance on technical issues is needed:
 - Freight
 - Analyzing pricing alternatives
 - PPPs
 - Ecological mitigation and greenhouse gases
 - Travel models and networks that do better policy analysis
 - Transparent economic impact analysis
 - Corridor management for greater capacity

Capacity Research Contributions

- Capacity research addresses these problems. Failure to address them can lead to delays and cost escalation
- Capacity research identifies many barriers at all levels and suggests techniques for overcoming them that have worked elsewhere (case studies, technical analysis)
- Successfully surmounting the barriers reduces risk of re-do loops, reevaluation of previously rejected alternatives, environmental or community opposition, law suits
- Case studies on rapid project delivery capture how projects have been delivered much faster than usual.
- Due to the large volume of material, a structured, searchable web format was selected for delivery

Where SHRP 2 Capacity Stands

- First 3 projects are done
 - Case-based resource to facilitate collaborative decision making: process trouble-shooting diagnostic (C01)
 - Performance Measures Framework – planning, programming and environment (C02). Report published
 - Case-based economic impact tool (C03)
- All 3 produced web-based resources
- C01 and C03 reports published March 2010
- C01 case studies as web publications

Additional Products in 2010

- Driver responses to pricing and congestion (C04)
- Highway management strategies and enhanced Dynasmart P (open source) for simulation (C05)
- Role of community visioning in highway decision making (C08)
- How do we deal with highway-related greenhouse gas emissions in planning? (C09)

Other Projects in Progress

- C06 A&B: ecological approach to mitigation and conservation – due 2011
- C10 A&B Advanced Integrated models sensitive to time of day and network feedback: partnerships with SACOG and North Florida TPO – due 2012
- C19: Expedited schedule case studies – due 2010

Upcoming 2010 projects

- C18: Pilot Test the Collaborative Decision Making Framework
- C11: Improved Economic Analysis Tools
- C12: Effect of PPPs and Non-Traditional Procurements on Planning & Environmental Review
- C15 Integrating Freight Considerations into the Decision Making Process

Upcoming Projects--Continued

- C16: Effect of Smart Growth Policies on Travel Demand – Thresholds and Conditions for Success
- C21: Pilot Test the Ecological Approach to Environmental Protection (results of C06A&B)
- C22: An Executive Guide to the Collaborative Decision Making Framework

Opportunities for States and MPOs in 2010

- \$2.5 million in pilot tests next year
- Can propose with partners – consultants and/or universities
- Multiple awards

Pilot Test the Collaborative Decision-Making Framework

- Announcement letters sent to CEOs/MPO directors in November
- Sunday workshop at TRB. Send a staff member to come and kick the tires. See if you might be interested in proposing
- February 2010 webinar. Reach a broader audience. Same purpose as workshop
- March 2010: RFP released
- April: Proposals due
- Start thinking about this

Pilot Test the Ecological Approach to Mitigation

- Products – ecological assessment templates, model programmatic agreements, credits system, business case for DOTs and resource agencies
- Webinar in February 2010
- Ecological symposium in spring/early summer
- RFP in July
- Proposals due in September
- Start thinking about this one too

Further Engagement of States and MPOs

Advanced integrated models sensitive to time of day and network feedback

- SACOG in Sacramento is a partner in C10B developing a combined highway and transit model set. CALTRANS is interested and involved. Have held one meeting/seminar in Sacramento and will do so annually.
- North Florida TPO in Jacksonville is a partner in C10A. Florida DOT and Florida MPOs are interested and involved. Will meet in Jacksonville annually.
- Broad representation on T-ETGs This begins the implementation process.

Capacity Marketing Summary

- Webinar series: 3-5 per year
- Pilot test projects will make multiple awards and many will be partnerships. Six to 10 states, MPOs, and resource agencies will be engaged
- Invitational Ecological Symposium 2010 (C06A&B)
- C10A&B engagement with California and Florida plus large T-ETGs for each
- Websites
 - TRB
 - C01
 - C02
 - C10B
- Staff and contractor presentations: AASHTO, TRB, APA, AMPO, specialty conferences

Websites

- www.TRB.org/SHRP2
- C01 <http://sites.google.com/site/shrpc01/>



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Thank You