UMR-IWW Navigation and Ecosystem Sustainability Program
ECC/NECC Minutes
Radisson Hotel La Crosse, WI (608-784-6680)
Aug 22, 2007 8:00 AM to 3:00 PM

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NECC/ECC

Attendees

Richard Astrack	CEMVS-PM-F	Marvin Hubbell	CEMVR-PM	Tim Schlagenhaft	MN DNR
Ken Barr	CEMVR-PM-A	Chris Klenklen	MO Dept Ag	Bernard Schonhoff	IA DNR
Charles Barton	CEMVD	Martin Konrad	IADNR	Terry Smith	CEMVD-PD-SP
Robert Beinstein	CH2M HILL	Dick Lambert	MN DOT	Rebecca Soileau	CEMVP-EC-H
Gretchen Benjamin	WI DNR	Gary Loss	CEMVR	Chuck Sptizack	CEMVR_PM
Tom Boland	MACTEC	Rich Manguno	CEMVN-PM-A	Jeff Stamper	CEMVS-EC-DAS
Jack Carr	CEMVR-PM-A	Catherine McCalvin	Nat Cons	Janet Sternburg	MODOC
Mark Carr	MEMCO	Mark Muller	IATP	Holly Stoerker	UMRBA
Hank DeHaan	CEMVR-PM-M	Barb Naramore	UMRBA	Brad Walker	Prairie Rivers Network
Jeff DeZellar	CEMVP-PM-A	Katie Nelson	CEMVR	Gary Wege	USFWS MN
Jon Duyvejonck	USFWS	Rick Nelson	USFWS	Scott Whitney	CEMVR-PM-M
Bill Franz	USEPA	Tammy Nicholson	IA DOT	Rich Worthington	CECW-PD
Bently Green	CH2M HILL	Don Powell	CEMVP		

Actions

Marsha Dolan/Katie Nelson: Send last 6 months of NECC/ECC correspondence to every name added to attendance list. Include all reports and attachments. ☑ FTP site.

Rich Manguno: Include updated slide broken into lock and non-lock traffic with minutes. ☑

Jeff Stamper: Fix errors on work plan handout and include in minutes. ☑

Jack Carr/Rich Manguno: Send out how to operate Survey Model to EPR and NECC/ECC.

Chuck Spitzack/Scott Whitney: Send out procedure for making comments to NECC/ECC. ☑

Minutes

8:00 Welcome/Introductions **Ken Barr**

- Accepted minutes from 23 May 07 NECC/ECC. Need to be posted to website.
- NECC conf call send changes next week.

8:15 WRDA and Appropriations Update **Rich Worthington**

No slides or handouts.

- WRDA- House and Senate conference bill was passed by the House in July. Pending in Senate.

- Conference bill did not pass the Senate before recess. If it gets to the floor in the senate, prospect for passage is good. Supporters working hard with senate to bring it to the floor early in September.
- President intends to veto bill if passed. If House vote would hold, it would override veto in house. We will have to wait and see about senate and veto over ride.

Nelson If there is a veto how long does it take to over ride?
Worthington I don't have an estimate.

- Appropriations- House has passed the Energy and Water appropriations bill. Contains approximately 20 million dollars with EMP consistent with President's budget. For NESP PED= 2.2 million appropriated. Senate has 18 million for EMP and 12 million for NESP. Has not acted on that bill yet. Conventional wisdom says prospect for passage before end of fiscal year is dim. Further-likely that there will be an appropriations bill passed, unlike last year. Maybe appropriations will be passed in a large bill with several appropriations. Prospects fairly good it would be vetoed for not being consistent with President's budget.

8:30 Survey Model Description, Application, and Results Rich Manguno

Presentation 1, file name: "Manguno Survey Model.ppt".
Updated charts, filename: "Unconstrained Traffic - No Lock Use.exl"

- We are not able to talk about results yet.
- Chart on Slide 1 =Chapter Three of report- NED phase 1 written around this chart. First component of chapter three includes scenarios and traffic forecast. Next, transportation rates. The Survey model and shipper response inputs are the framework for traditional NED analysis. Slide 5 shows that model results include transportation benefits. In the last part of chapter three we take cost and compare to benefits to produce traditional benefit/cost ratio.
- How traffic forecast and shipper response info were integrated into model: You've seen results previously- I will talk about how they got used. Grain Model- low and high traffic scenario get run through model. Model is structured to produce information with respect to these reaches. 1-3 Mississippi, 4- Illinois, 5 and 6 Ohio. Model produces traffic flows for corn, soybeans, and wheat and is able to look at flows for these reaches in detail. We didn't implement it at this level. We took combined flows that make MR (Mississippi River) and IWW (Illinois Waterway)system and are using those rates of growth. It's broken down by commodity- corn, wheat, and soybeans. Rates are not different when we look at MR or IWW.
- Low Traffic: A summary of what you get when you apply info to starting point of MR is on slide 9-12. Wheat, which is small quantities to start, goes to zero by 2030. Corn has an interesting pattern in the low traffic scenario. Falls to near zero by 2030 then rebounds. Reason: has to do with yields and assumed level of ethanol demand. Forecasts for ethanol demand come from Dept of Energy source through 2030. After that it is held constant. At some point in 2030 and beyond the increasing yields in corn overcome ethanol demand and you see export traffic rebound. Same picture for IWW traffic. Absolute volumes different, but pattern is same as MR. This is a function of the way we aggregated flows over reaches.
- High Traffic: Wheat falling to near zero by midterm of period. Unlike low scenario- corn has a steady increase. On slide 12 values are different but same shape.
- Slide 13: high traffic. Summarizes non-grain traffic forecast. Unlike the way grain was handled, we were able to retain the distinction between MR and IWW traffic. Patterns not identical. Coal broken down into north and south. Sources of coal as they moved over MR- western Ohio river basin, particular demands for each source were forecasted to grow at different rates. Therefore we are treating north and south coal as two different commodities. Coal south enters river at St. Louis or

below and heads south. Miscellaneous traffic: employed simple trend analysis to capture expectation of miscellaneous. Modified that plus or minus a standard deviation for high and low. FarmNEC is animal feed-Employed simple trend analysis.

Astrack Where are these located on the river? Point or summation?

Manguno Are you wanting to know what limits of MR are? It's entire UMR- Minneapolis to mouth of Missouri.

Astrack No, where are these traffic flows on the system? Lock 25?

Manguno This is total traffic on the whole system. To break down into which pools you would see many of these tons going across several pools. Would double count. In model we use specific movements so it doesn't double count. This slide is for summary purposes.

- Slides 15-17 represent traffic for grain, non grain, and composite for two. Gives some sense of what low and high growth will be.
- Implementation of shipper response studies (slides 18-20). Effort to describe how decisions about quantities change as price changes over time. This is a fundamental piece of economic analysis. These two studies capture details. There's one study for agricultural and one for non-agricultural products. In trying to understand what's included in two reports it's important to make a distinction between annual volume response and mode choice response. Annual volume is how big the pie is. Mode choice is how you slice pieces (how much is water?, how much is rail? etc). Slide 20 shows the commodities results are given by. Ag: corn, soybeans, wheat. Non-Ag: Group A, B, C. Bulk of traffic we see on waterway falls into group B. Iron and steel are group C. Construction material in group a. As we implemented things in the survey model we included rate effect only. Reliability and time are not part of the model right now. Reasons: Time- The way time was defined in these studies it included total time to complete shipment. Not just time on water. We don't have information at this point that would allow us to incorporate these effects into model. At some future date there could be enhancements to include time. Reliability- notion being if you improve reliability of transportation mode you could attract a greater volume or if less reliable shippers could lower quantity shipped by that mode. More challenging to incorporate. Notion of reliability based on expectations and it's not clear how shippers would redefine expectations for some future state. Not to say we couldn't look at distribution of delivery times and even how times would change with improvements. We have a floating reference point in terms of expectations. It's hard to capture this info. Reliability is not a part of what we have done in survey model.
- Slide 21-22: Elasticity values for Agricultural products. Rate and time have negative signs in front showing an inverse relationship. As rate goes up, quantity goes down. Same with time. Reliability has a positive sign…more reliable=more quantity. It shows a series of data points defining what response we would expect. Mode shift effects- Time and reliability get to be really small values, time in particular. Not incorporating time component wouldn't be of much consequence given small values seen here.
- Slide 23-24: Summarize results for non grain. Three commodity groups. Numbers are pretty small less than .5 in most cases. Slide 25: functions of different data sets and use in model so we can find continuous assumption that would show effects of price change.
- Slide 26-29: function is captured in model. One of these for each combination of Ag and Non-Ag annual volume and mode choice. We use that to define how quantity will change with price changes. You can solve model to equilibrium and get waterway traffic. We still need benefits. Presents information in proportions and talks about amount of quantity retained instead of amt lost. With this chart on slide 29 I can measure area under curve and define benefits.

We are short of sharing actual results.

Schonhoff You showed an increase in domestic demand for corn- didn't see in soybeans?
Manguno I believe there was little if any demand for soybeans for bio-diesel in forecast. As captured here there is no presumed domestic demand for soybeans in bio-diesel.
Muller With low traffic forecast you used EIA data to 2030 then after 2030 flatten out? Why not extrapolate trend line?
Manguno There are any number of ways you could handle it at that point. It was held at level of last year included in forecast.
Muller Given forecast it looks like we are going to shift from transportation driven by Ag supplies.
Manguno Right, in low forecast. Amount of grain downriver significantly different. Different in high.
Muller How did you come up with forecast for aggregates?
Manguno I don't remember specific drivers. I can get back to you after I'm at my desk. One thing to keep in mind: Significant portion of aggregates is moving below St. Louis. Not on lock and dam portion of waterway. It is considered in this study, as it is relative to system environmental implementations.
Muller I would like to get more information on that.
Worthington It would be helpful if we could tell what non-grain commodities are. I think we have high level for coal and steal, none of which dominate non-grain traffic.
Manguno Two big components that don't go through locks are coal and aggregates.
Worthington What are major non-grain commodities going through locks?
Manguno Everything else. Iron, steel, chemicals, and on MR there is coal moving northbound from Ohio River valley.
Muller Looking at aggregates in 2060 there are 29 million short tons? Are they going thorough lock and dam system?
Manguno No, a significant portion is not moving through lock system. It is moving south from St. Louis.
Barr Are population drivers described in grain model report?
Astrack When he aggregates whole system it doesn't mean much to me. Maybe break into locks.
Worthington Look at IWW total lock system. Steel and coal. It would not be aggregate dominated system. Although not as much iron and steel up MR. You would have a similar showing on Mississippi.
Manguno This table can be broken out to show lock portion vs. non-lock portion.
Walker Is there an explanation why coal is going both north and south? Why?
Manguno There is western coal going down river to power plants on gulf coast. North is coal going to mini-mills developing and some of existing power plant facilities I believe.
Walker Is there a reason why two coal categories? Passing on river?
Lambert There are different types of coal.
Walker Not tied to population.
Manguno In chapter three of the report it summarizes main drivers for each of non-grain forecasts. We were asked to summarize main points and have other documents available for review.
Muller Right now 6 billion ethanol production. Easily pass projections. 5 billion gallons too low.
Worthington Your group advocates other sources for ethanol. You don't think advocacy will have impact?
Muller I think corn ethanol will increase and hope we get to cellulosic ethanol.
Worthington Do you think it's a possibility policy will change?
Muller I would argue corn ethanol production whole range should be shifted higher.
Franz Is Rich Manguno going to be able to break out charts into locked and unlocked portions?
Barr Would some of that be available for workshop next week?
Manguno Will provide that chart with minutes from this meeting and email it to NECC/ECC.

9:35 Re-Evaluation Report Presented by Authors

Introduction **Chuck Spitzack/Whitney**

Chuck Spitzack:

Presentation 2

- Slide 3 Schedule. Note public meetings at 2nd qtr of FY 08- Allows more time for draft report by 31 December.
- Slide 4: focused on recommended plan. See if any changes would lead to re-formulation.
- Slide 5: approach. Executive summary. Intro lays out this approach. First chapter national transportation.
- Slide 8: Inland waterway is 12,000 miles and keeps us competitive internationally. Deteriorating: more outages and shutdowns than in past. Looking at maintenance and where to increase efficiencies.
- Slide 9: recommended plan. Looked at these planning objectives for national transportation system.

Scott Whitney:

Handout: Key findings

- Report: extension will give us opportunity to incorporate your thoughts. We are 85% there. It is missing regional aspects. DOT initiatives that we could augment multi-modal analysis with.
- Key findings: these are the themes and ideas out of the report.
- Chapter one: key ideas multi-modal approach. Traditionally agencies focus on their one mode. This is a recent approach to look at the whole system and create a safe secure transportation network…not just rail or inland navigation.
- Chapter two: national economics. Our system is 40-50 years old. China and India are investing heavily in transportation. Economy of China and India and growing over next 50 years. By 2030 China will be in number two slot in econ. India and China are international competitors. Our national economic security and stability comes back to transportation of our goods and getting them to market. Congestion is largest threat to economic prosperity-Increases costs and delays. It's costing American economy billions.
- National level- looking at ways to augment inland waterway trust fund. Key points of barge system are energy efficiency and savings.

Schlagenhaft Have you taken into account climate issues and energy costs into future costs to maintain infrastructure? These have a much larger impact on economy than congestion.

Whitney I agree. They are not in there now. Multi-modal transportation system important. In the last month aging infrastructure has been in spot light. Estimates have been put together in terms of what it would take to bring roads up to standards.

Worthington Specifically, we have not factored in climate change impacts.

Whitney We have not.

Worthington It's not probable that we would be able to do much with that in next couple months.

Barr During feasibility phase global warming phenomenon not captured in global grain model. In feasibility report we decided we could do it for 7 regions in US, but not whole world.

Manguno There is some sense of how things might possibly change in US as a result of climate change. We are making forecasts in a global environment. We felt predicting climate change in world is beyond what we could do.

Whitney Climate changes produce threat to transportation system. We welcome numbers and figures to what those costs could be.

Worthington It's a real stretch to attribute recent flooding in Midwest to climate change.

Schlagenhaft Reports coming out are within timeframe. It's a mistake not to think about it. It's planning in a vacuum if your not considering this.

Muller Cost of petroleum is such a crucial issue in transportation cost. I thought it should have some assessment.
Thompson Petroleum- a bigger issue in grain model would be cost of nitrogen fertilizer.
Whitney These key findings will be our talking points. Appreciate your thoughts.
Lambert 2.5 times more efficient than rail- check your math on gallons. Rail long haul…efficiency should increase. Short hauls done by other rail roads. In MN we have 22 short haul railroads. Efficiency of majors increased but not including short haul. Be careful about those figures. I'd like EPA estimates.
Whitney Mark Burton's reports could help with that. 71, 420, 530 right numbers. Nine wrong. We have a whole collection of graphs and images. Visualizations help people understand. If you have some, please send them too us. Color graph showing increase in unscheduled outages. Pg 8 chapter 2. Hopefully, we can combat that with major rehabilitations. Does little to increase efficiency.

Environmental Quality **Ken Barr**

Presentation 3

- Chapter 3, pg 45- pages on environmental quality. Re-evaluation not looking at ecosystem component. This is part of recommended plan. Includes navigation efficiency features as well as ecosystem restoration plan.
- Specific to NED analysis, one component of new locks would be costs of mitigation.
- Major resources of concern listed on system impacts slide. We did sensitivity analysis. The system impacts were based on differences between with and without project. We did in 10 year steps projection of traffic with and without improvements. For each pool we asses how many more tows each day. Top is low traffic and high traffic forecasts. Doesn't directly equate to tonnage. Impacts happen at each pool differently.
- Peer review panel has just received re-evaluation analysis. What you see under programmatic EIS incremental increase 157,000 tows. Under high traffic forecast is almost half of what was projected under programmatic EIS. 15 different scenarios during EIS. We took worst case- greatest projected increase in number of tows. NEPA requires reasonable worst case analysis.
- What did we do? Rich had to have mitigation cost. We believe there is enough uncertainty that for reasonable worst case we stuck with costs in EIS. They are part of construction costs in benefit evaluation. Indexed for inflation. From 2003-2006 167 million to 202 million.
- It is a whole recommendation including navigation efficiency and ecosystem restoration.

RED & Other Social Effects **Jack Carr**

Presentation 4

- Slide 2: Regional benefits and other social effects will be considered in formulating a conclusion to report. Tennessee Valley Authority used REMI (Regional Economic Models Inc) of Amherst, MA.
- Slide 4: Results from feasibility study. Gross Regional Product sales or value of goods and services.

Astrack Bottom line we aren't doing anything new for re-evaluation report.
Barr Mark Burton from Univ. of TN has done rail rates study. He did an update to that study. Water compelled rates or keeping rail rates low is part of RED.

- Slide 5: Rail capacity issue. In past COE has assumed sufficient capacity. Assuming rail capacity is available could lead to errors in public policy.
- Slide 6-8: Studied specific routes (and terminals in St. Louis area). Corridors examined are busy, but not at capacity. Most easy fixes to rail capacity have been made. Additional expansion will be more costly. There is sufficient rail capacity to handle incremental traffic if and when water got congested. This is something we need to keep looking at closely- conclusions of this paper may not be true in

future. Mark Burton did a similar study in '90s and there was plenty of capacity- no problem. Today there is adequate rail capacity to handle incremental traffic but less rail capacity then in the 1990's. Findings will be summarized in interim report.

- Slide 10: Water Compelled Impact today 350 million dollar reduction in rail rates vs 1995 -1 billion dollars. Results are 1/3 as large as '95 study. Why? Rail has own traffic. They aren't seeking out traffic that is going by waterway. Also, more local processing of corn and soybeans and loss of short line connections to river. Large difference in rates between rail and water.
- Slide 12: Other social effects. Qualitative write up. Reports available on website or contact Carr and he will send by email.
- Slide 13: A study on amenities and how they contribute to regional economic development.
- Slide 14: Denver Tolliver Univ. of North Dakota wrote a paper in feasibility study. He evaluated emissions, accidents, noise, and vehicle delay. Considered too new by COE. Impacts were addressed but not a part of B/C ratio.

Barr We didn't use new traffic forecasts to re-do RED or OSE.
Astrack That needs to be specifically included in report.
Carr We will say what is new and what is not.
Barr If you get into heart of this, we tried to summarize. If there is a perspective we are missing get it to us in comments.

Non-Traditional NED **Jeff DeZellar**

No slides

- Qualitative economic analysis of multi-modal transportation system. Cites MIRAD.
- Increased traffic expected in future. Increased infrastructure will be required. Uncertainty regarding what infrastructure improvements will be made.
- Looks at environmental impacts, safety, wear and tear. Assumes increased capacity and efficiency leads to increased usage of system. Waterway can alleviate congestion and provide environmental safety etc. benefits.
- Rail roads can be expected to respond competitively. Have contract with Anatloy Hostchtien. Provide framework at end of August. It's an extremely challenging endeavor.

Astrack Is this in the report. Chapter 3 NED phase 2. page 34.

Conclusion & Discussion **Chuck Spitzack**

Presentation 5

- Chapter 4 Risk, Conclusions, and Recommendations. The COE is going to risk informed decision making.
- Risk is looking at recommended plan from different prospective. Seeing recommended plan in greater context. The formulation started in 1990's. Started as single purpose navigation project. Significant move by COE to look at UMR & IWW as a whole system. Formulation process on navigation side was very successful in relating and pinpointing demands of system, where bottlenecks were and economic consequences. Seven new locks for first increment and five lock extensions. Feasibility received some criticism that we should improve models. Try to get more robust model and balance demand and supply across world grain.
- Demands on transportation system are real. Struggle to keep pace. Pressure on transportation network is understood better than how it will manifest over time. We have national goals and objectives for transportation. We have private partners, federal, and states. Difficult to see how issues will be

addressed. Having two operational locks at 7 sites is important for reliability and redundancy. If one lock goes down traffic is not totally stopped with two locks at site.

- Important to make sure we are talking about a dual purpose and integrated plan. Combined vision of navigation and environment needed to look at it is as a total project.
- Build or don't build project influences future. Part of chain reaction. Risk remaining is uncertainty in utilization in recommended plan. Dollar costs = financial risk. RP=recommended plan. Benefits of implementing plan outweigh financial risks.
- Recommendations: Endorse Recommended Plan. 15 year increment reasonable goal to seek. Gained better understanding of global grain market. Also, understand how different modes of transportation work together. Need to develop more tools.

Muller In terms of recommended plan greater than risk, what about opportunity costs? Are there better ways to spend that money? What is best way of addressing congestion issues? Is lock the best way?
Spitzack It gets back to national vs. federal system. What are best ways to make decisions? In entrepreneurial society you will have many attempts at solving. Rail investments take a long time to come to play. To maintain flexibility we need investment in all modes. "What if" analysis is needed. More tools would hopefully provide information.
Muller Your recommended plan provides benefits. Can the COE say this is the best way?
Spitzack From optimizing features of waterway system we feel it is the best way. The idea that transportation system needs to be integrated with quality of life and environment, and this study has included that. Important to keep flexibility and robustness.
Stoerker Does the analysis that isn't in this report yet bear out the number one recommendation? There are conclusions that were not mentioned in the report that are listed as conclusions. That's a problem.
Spitzack Comments are needed by 30 Sept 07 from stakeholders.
Barr A number of you have commented on individual pieces, please restate them in a summary fashion so we can include them in this report.

11:00 EPR Update **Rebecca Soileau**

Presentation 6

- Next week's meeting looking at draft interim report. Requested Rich Manguno do presentations on survey model. Also, TVA's Chrisman Dager will do rate presentation. EPR will look at individual reports and compose a summary report.

Worthington A package will go forward of the report, executive summary, and comments on executive summary.

12:45 FY 08 Work Plan discussion

Program and Re-Evaluation **Scott Whitney**

Presentation 7. Hand outs "FY 09 work plan" and "contractual monitoring and work plan".
Benjamin I thought you didn't get 14 million? There was fish passage cut back due to that.
Whitney We did get it. There was a time we were expecting 18 million. Fish passage was able to accomplish what they needed.
Benjamin You have $25,000 on institutional arrangements. Is it 25K without authorization?
Whitney It is $25,000 without.

Navigation **Jeff Stamper**

Presentation 8. Refers to "FY 09 Work plan" handout.

- Error on Scott's handout on lock 22 and 25.

- Slide 2: PED= Pre-construction Engineering and Design. Covers plans and specs. Design activities. Engineering studies. In 07 traffic management- we didn't do so well because the interim report came in and took precedence. There is not enough money to start 20, 21, and 24.

Whitney PED is bridge between study and authorization. Will continue after authorization also for each project.

- We are far behind when compare past funding to recommended plan. Slide 3: We are not getting the funding we need. What will happen is we won't get 200 so the curve will get a longer tail and be flatter on top. Reasons: Inland Waterway Trust Fund is not rich and has a lot of projects on the books.

Stoerker Annual O&M is 125 million?
Stamper It is 125 million. I'm sorry PowerPoint changed the graph.
Nelson How much are you getting for major rehab?
Loss For 07, Rock Island District got 20 million.

- We are considering re-arranging money between lock 22 and 25 so one can get to construction in 2009.
- Refer to handout on Traffic Management. Project F. Project H-switch boats. Contract documents developed next year.

What is finalized legal opinion on switch boats?
Stamper Main issue around switch boats is- if we put them out there can we force their use? Also, who pays if accidents. But if government provides craft, is government assuming liability?
Sternburg How would you approach choosing 22 or 25?
Stamper Elevate decision and bring in district leaders.
Whitney A third issue is hydro-power. 22 has highest return.
Sternburg There's a preliminary license for 22 and 24. Need to keep state agencies involved on which one you go with. We would like input in that decision.
Lambert Have you considered talking with navigation industry which one they would choose?
Stamper There is technical engineer input, tech economic input, tech eco-system, political, technical input from industry. Granite City-1200 foot lock, Mel Price 1200, 25 makes sense. Three in a row. They could choose to staff differently. Could take a different crew with 1200 foot locks.
Whitney If you fund projects to capability-this slide shows what would happen to trust fund. To maintain positive balance we push construction out 8 years.
Stamper Who here knows about Homestead lock project in Paducah? It is our typical way of doing projects. Existing project works and build new one somewhere. On UMR we will be building adjacent to existing locks used in navigation. Take this funding curve you are affecting traffic for longer. It's like narrowing lanes down for 1,000 miles down to 8 feet. It's Extremely important when trying to implement locks.

Ecosystem **Ken Barr**

Presentation 7 continued (end of Whitney's). Refer to hand out FY 08.
Nelson Will these slides be on the website?
Barr They will be included in the minutes and published to the website after they are final. We are working to finalize minutes in 60 days.

- Should have EA out in Dec 08 on pool 18 draw down.
- Philosophy on new starts: We felt under $14 million plan we could start a couple new projects. Ken's suggesting initiating two more water management projects. Need input from you and river resources. We would kick off new starts in second quarter because that is when we get money.

Duyvejonck If you're concerned about getting $10 million or less next year, should you talk about new starts? Wouldn't it be better to pull back on number of projects and concentrate on a few to get them ready to go in 2009 for construction money? I'd like to have a discussion at some point on what those priorities are. Need to review priorities.
Barr A good point. There was some thought given to 10 million program- science panel got reduced, fish passage reduced. John's suggesting focusing on 2 or 3 projects. If we go to 7 million it will be essential.
Duyvejonck In the process of identifying priorities, we need tentative system goals and objectives. Frustration: need to get that done before we start shooting off on new projects.
Barr Under project K the system objectives document will be out September. Meeting with science panel next week. Want to get to geomorphic reach scale objectives. Whole first increment plan needs to be focus of November NECC.
Duyvejonck If we do it- Lets do it.
Whitney A response to new starts. We've had projects that have come to a halt. We have lost 7 projects of original 18. We need to keep feeding additional projects to keep construction capability up. Starting from scratch 3-5 years out from construction capability.
On '08 planed drawdown. Good idea, look at new pools.
Barr Pool three detailed fact sheet from river resources forum should help.
Benjamin Maybe there is some first reactions we can provide via email between meetings.
Schonhoff Flood plain restoration projects: are you anticipating accelerating those greatly?
Barr If we get construction authority we would want to meet with you for mid-year corrections. Those are opportunity projects we would want to capitalize on.
Schonhoff Those won't be as simple as we are ready to construct lets do it. They are affected by COE policy, acquisition. Would be nice to iron out those, and keep working.
Duyvejonck Classic example: land available after floods. Just had flood. Pot of money sitting there- properties for sale.

2:15 Adult Fish Entrainment Status **Ken Barr**

Presentation 9.

- We've covered 600 miles of river with Kevlar net. We have good numbers. Complete adult fish entrainment sampling this year.

Duyvejonck I'd like to mention Ken's team, Mark and Jack Kilbor, made every effort to make this happen. They really did go 150%. We haven't reached modeling and point where we can predict, but I think we are learning something from data about where concerns are. Identify specific habitats and specific pools or reaches.

2:30 Partner/Stakeholder Comments **NECC/ECC**

Nelson You have talked about first increment plan, Chuck you mentioned we are shooting for November for a draft. Will we see that before NECC meeting?

Barr We have 235 projects plus adaptive learning. Context given in WRDA legislation. Need system report card. You will see pieces as we get through it. Input and helping us put it together. There will be a document. A read ahead for November.

Spitzack We have a science panel out there talking about adaptive management. It should be an activity. Adaptive management is an evolving process. Planning for how to make decisions in future. Needs to be in writing.

Barr October 4 NECC conf call. And follow up on adaptive management.

Duyvejonck I don't want to start debate, but Scott was mentioning he wants to hear from us. Information needs. Since we were talking about first increment plan. The FWS letter addresses which info do we need- besides just data. Goals, objectives, some more discussion on institutional arrangements. Setting stage between NESP and EMP. Need a collaboration process not just coordinating-We need to be a part of process. Emiquon good example of starting that process. You really need right info at earliest stages of planning to make this work. We were trying to be positive not negative. We were trying to lay out what needs to happen in future.

Barr What types of issues and where/when should we deal with the issue. Some PDTs are reach planning for three pools. We need to get to that point that we address right issues at right places.

Whitney Comments are encouraged and important. Please be specific. That was a broad brush that hit many the wrong way. Team leaders were scratching heads.

Duyvejonck We could have been more specific. We are wrestling with goals and objectives. How can we get more specific in collaborative nature without those.

Benjamin I didn't find it to be abrasive at all. Thought we stepped through a lot of processes already in three years of doing PED work. Why don't we start to look at that stuff? Seemed to me we were stating we have done good things and now we need to take next step to move forward in positive way.

Benjamin Goods and services report?

Barr It will be on web this week. Hard copies out within a month. Last time it was in with 15 attachments and numbered so you may have missed it.

Sternburg Chuck you mentioned comments?

Chuck will send a note out on process to send in comments.

Handout from DeZellar on Waterlevel Management-Newsletter. Interested in feedback.

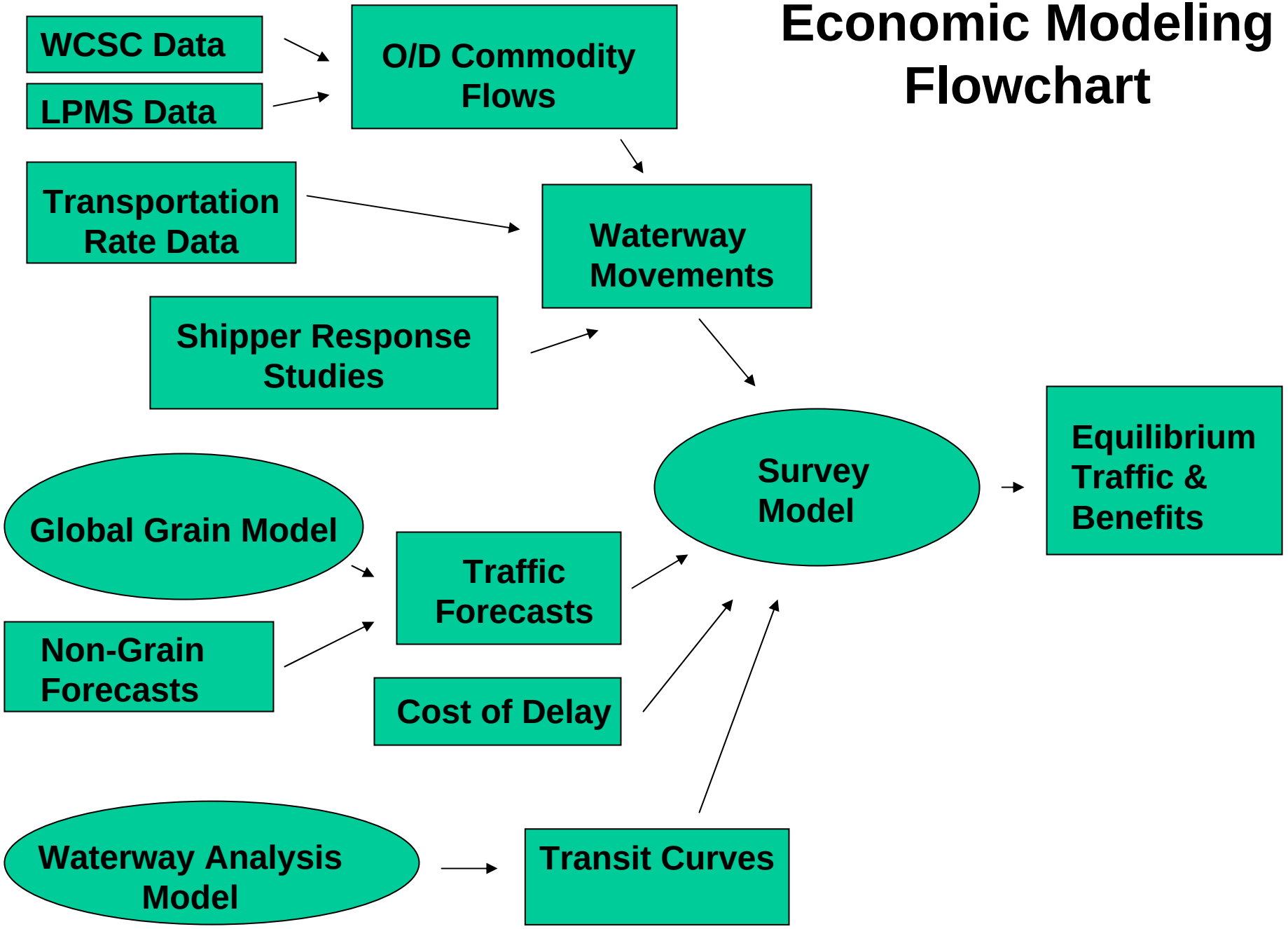
Stamper PIANC looking to create fish passage study group. If you want it work through Ken or Mark. Smart rivers- opportunity there to grab international interest.

McCalvin Depending on what happens with funding in FY08, if projects have to get cut its seeming like work looking at system level is critical. Hate to see it get cut.

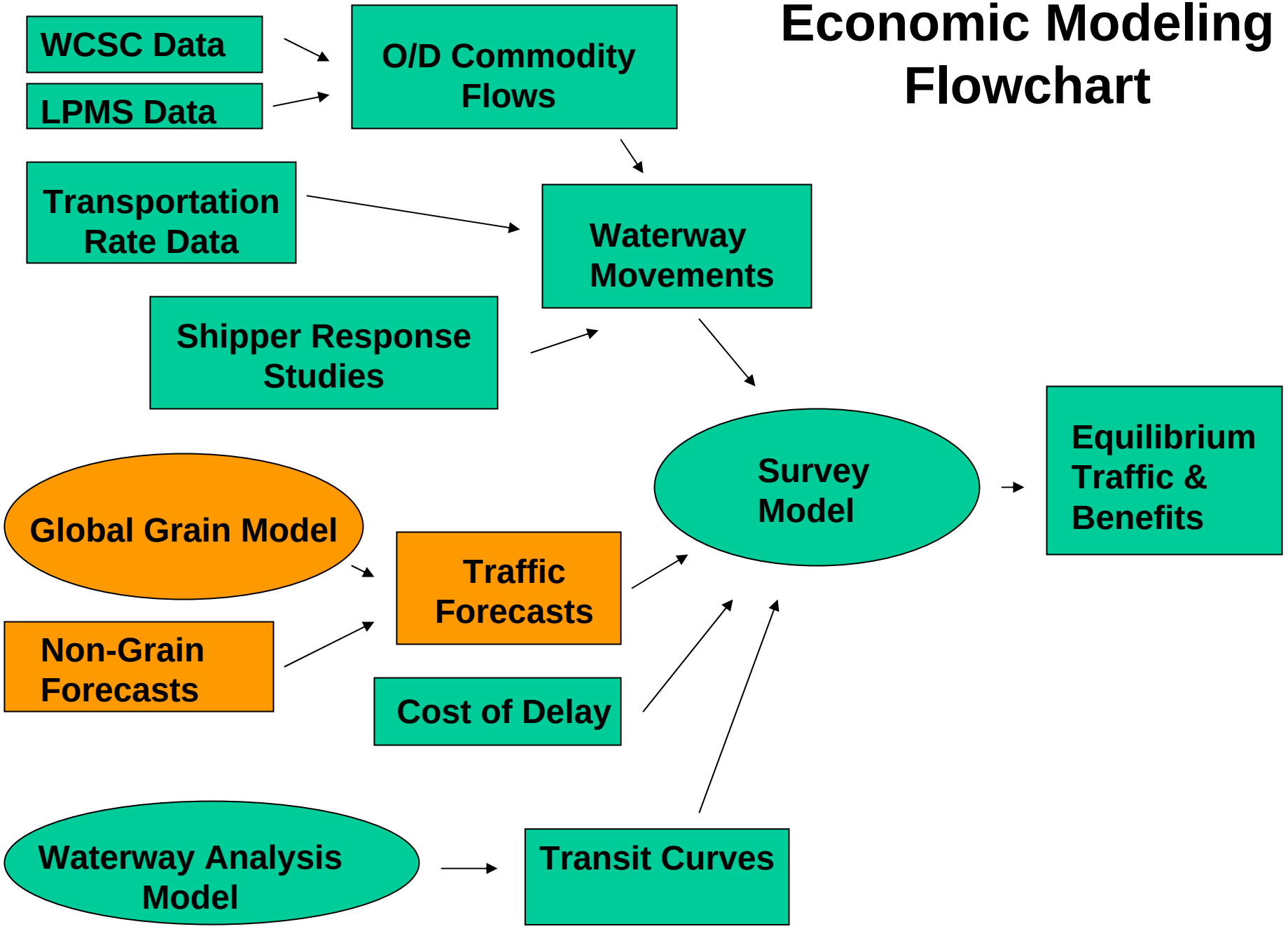
2:30 Adjourn

Next meeting:
November 14, 2007, 8am-3pm
Crowne Plaza St. Paul Riverfront, 11 East Kellogg Boulevard, St, Paul, MN, 55101
Hotel phone number 651-292-1900.
Information posted to NESP website at: http://www2.mvr.usace.army.mil/UMRS/NESP/default.cfm

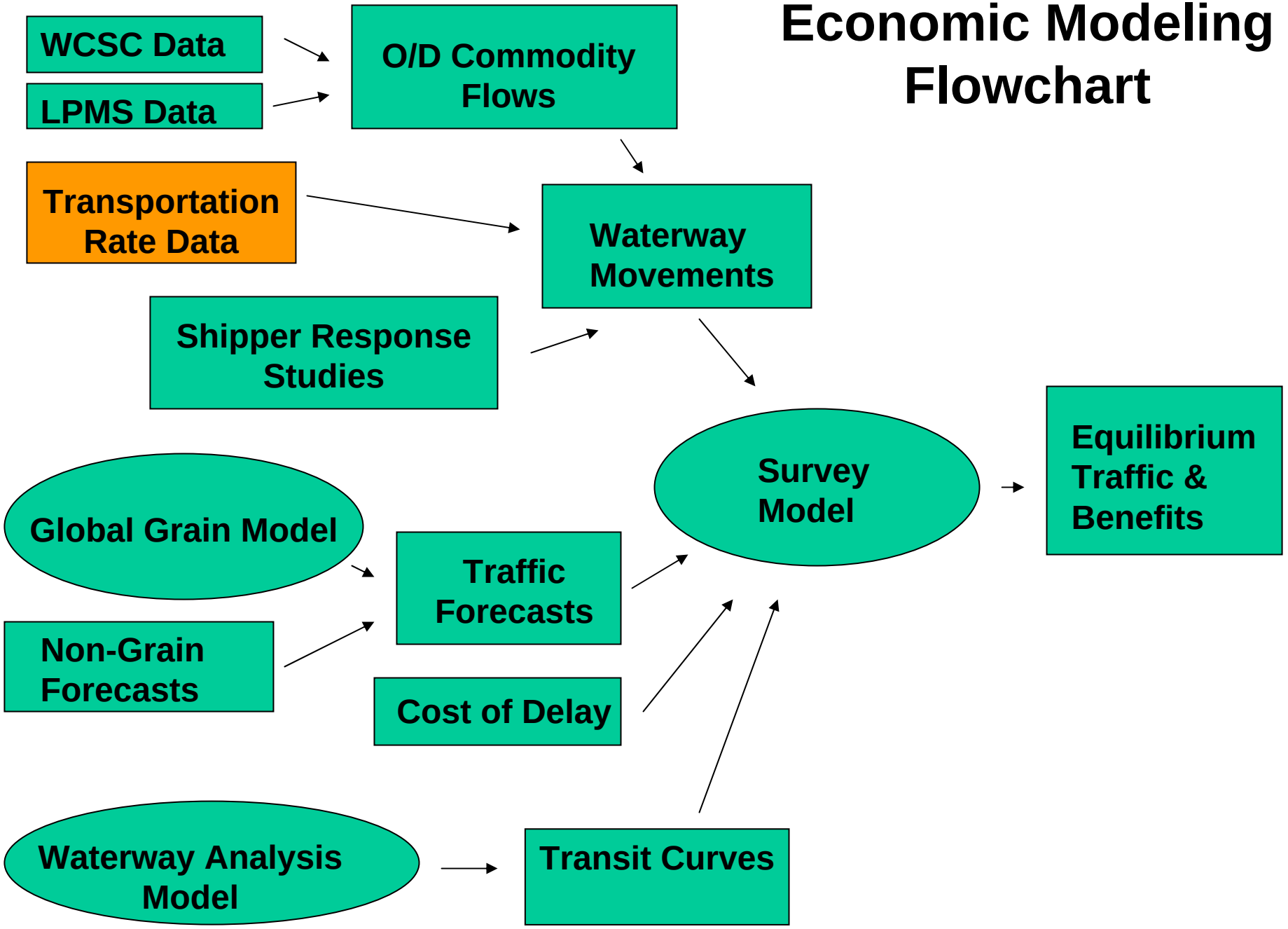
Economic Modeling Flowchart



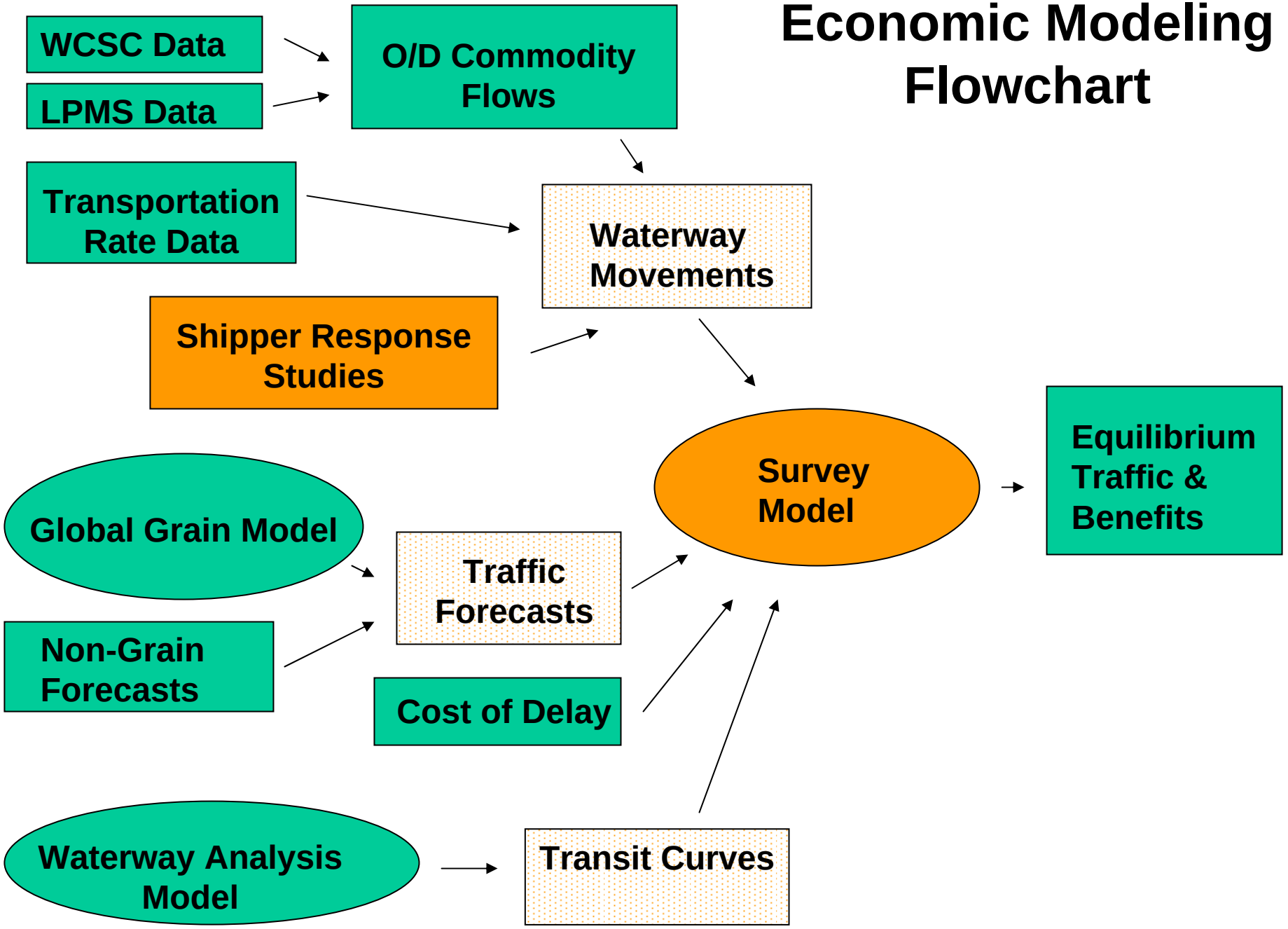
Economic Modeling Flowchart



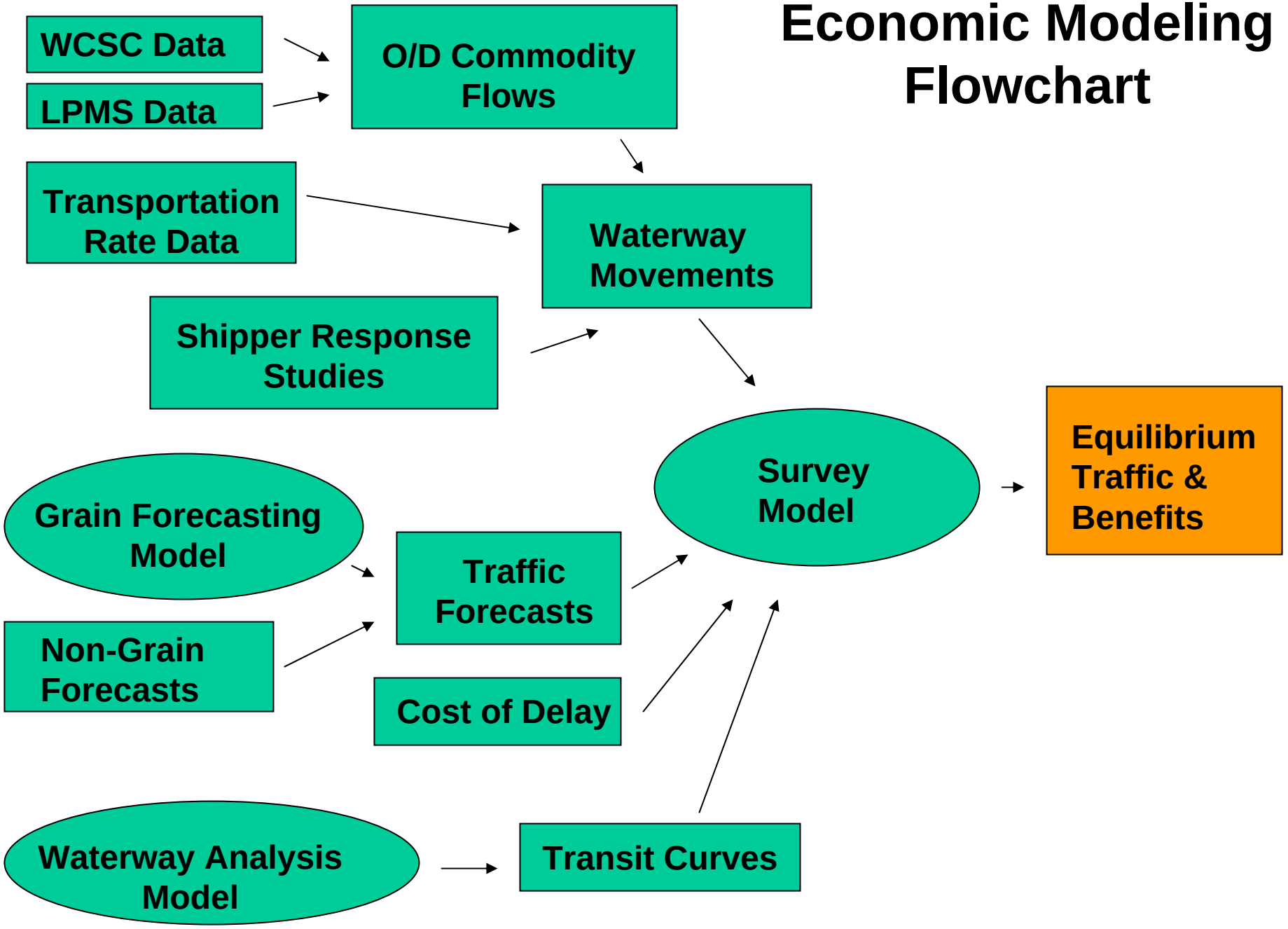
Economic Modeling Flowchart



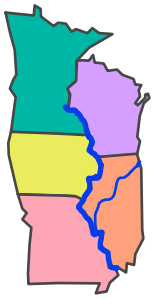
Economic Modeling Flowchart



Economic Modeling Flowchart



Traffic Forecasts



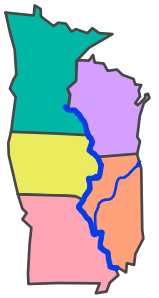
- ***Longer-Term Forecasting of Commodity Flows on the Mississippi River: Applications to Grains and World Trade.***

- ***NESP Economic Evaluation – Waterway Traffic Forecast for Non-Grain Commodities.***

Grain Model Input Specification

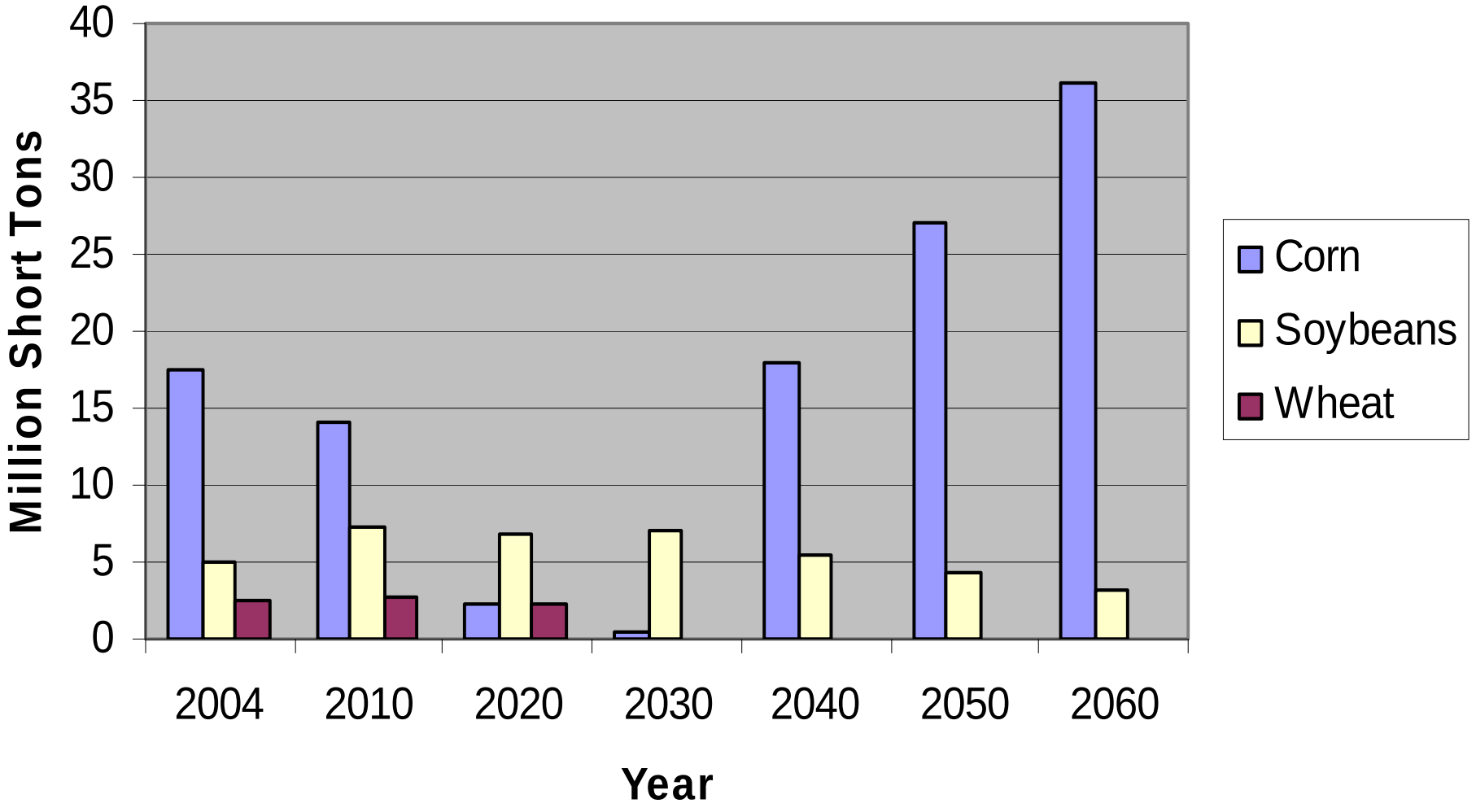
Parameter	Low Traffic	High Traffic
U.S. Corn-Based Ethanol Demand	EIA 2007 (11.2 billion gal by 2012; 13.5 billion gal by 2025)	Constant @ 5 billion gal
U.S. Corn Yields	1.6 bu/yr increase	2.0 bu/yr increase
ROW Corn Yields	GGM Base Case	25% increase in GGM Base Case
U.S. Area	107% of 2002-2004 average	107% of 2002-2004 average
U.S. Rail Capacity	20% increase in 2000-2004 max car loadings	10% increase in 2000-2004 max car loadings
China Corn	Exports = 8 mmt	Model Solution
Panama Canal	No Expansion	Expanded by 2020
UMR-IWW Infrastructure	Expanded	Expanded

Global Grain Model Reaches

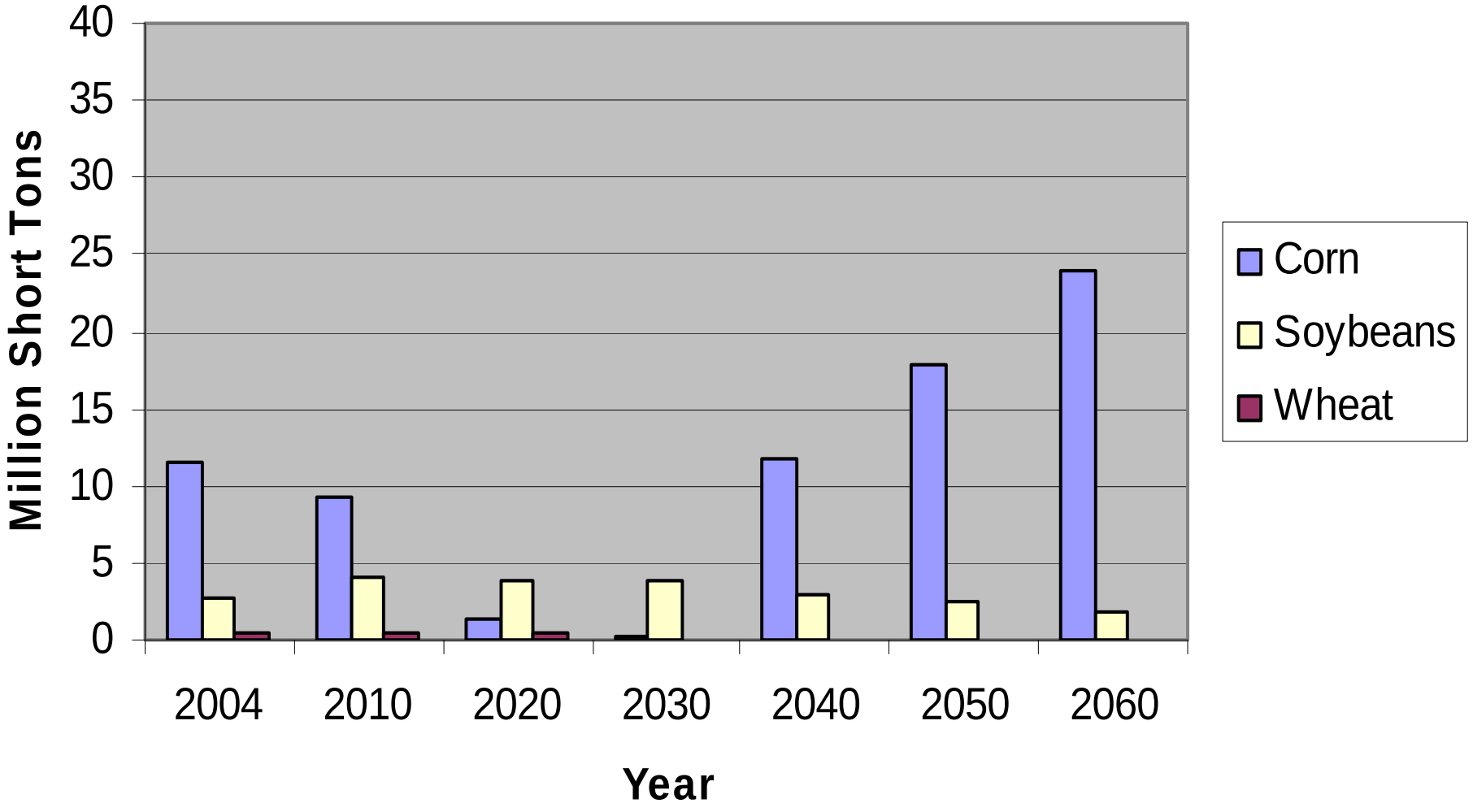


- Reach 1: Cairo, IL to LaGrange, MO (Miss River)
- Reach 2: LaGrange MO to McGregor, IA (Miss River)
- Reach 3: McGregor, IA to Minneapolis, MN (Miss River)
- Reach 4: Illinois Waterway (IWW)
- Reach 5: Cairo, IL to Louisville, KY (Ohio River)
- Reach 6: Louisville KY to Cincinnati. OH (Ohio River)

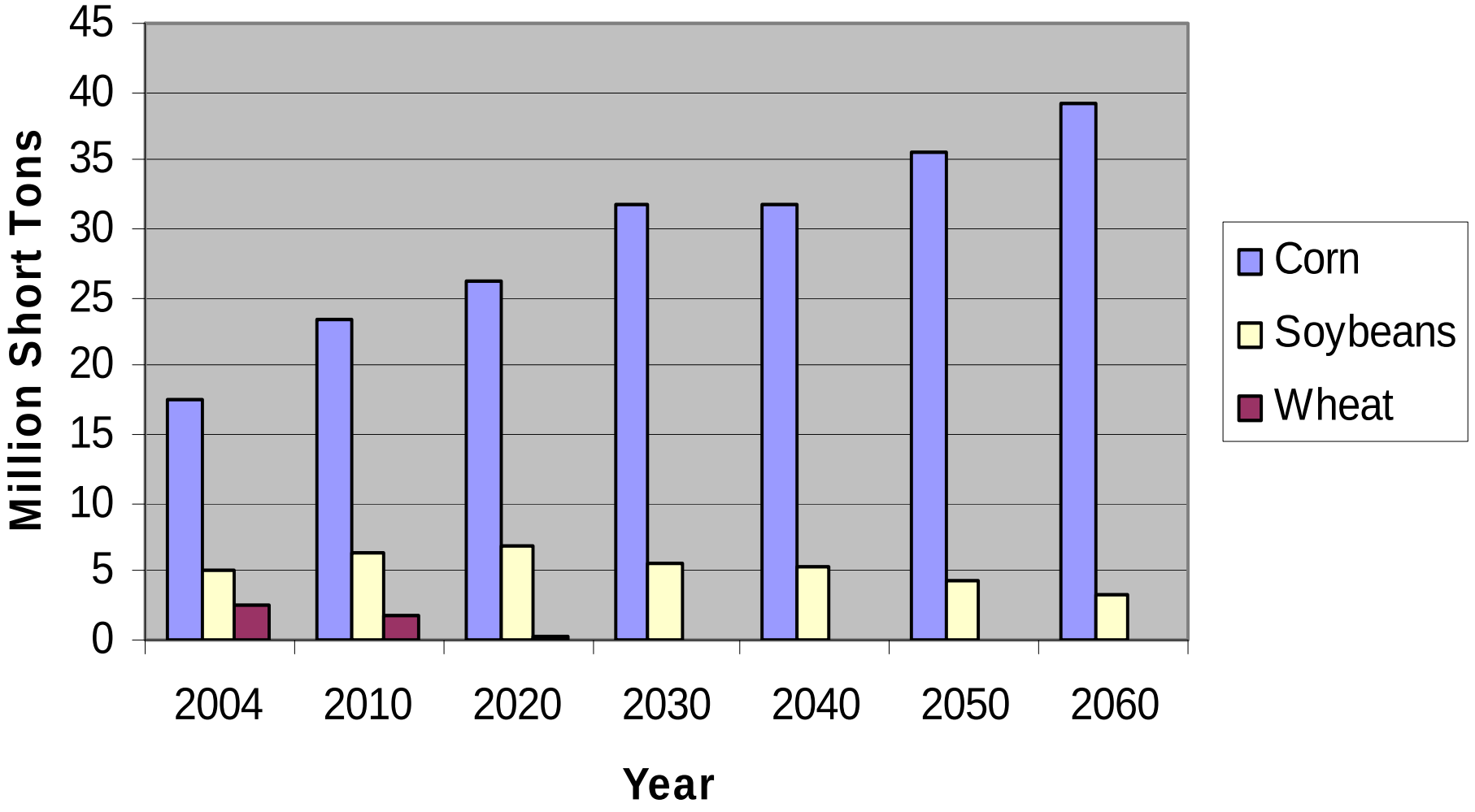
Unconstrained Low Traffic Scenario
Mississippi River



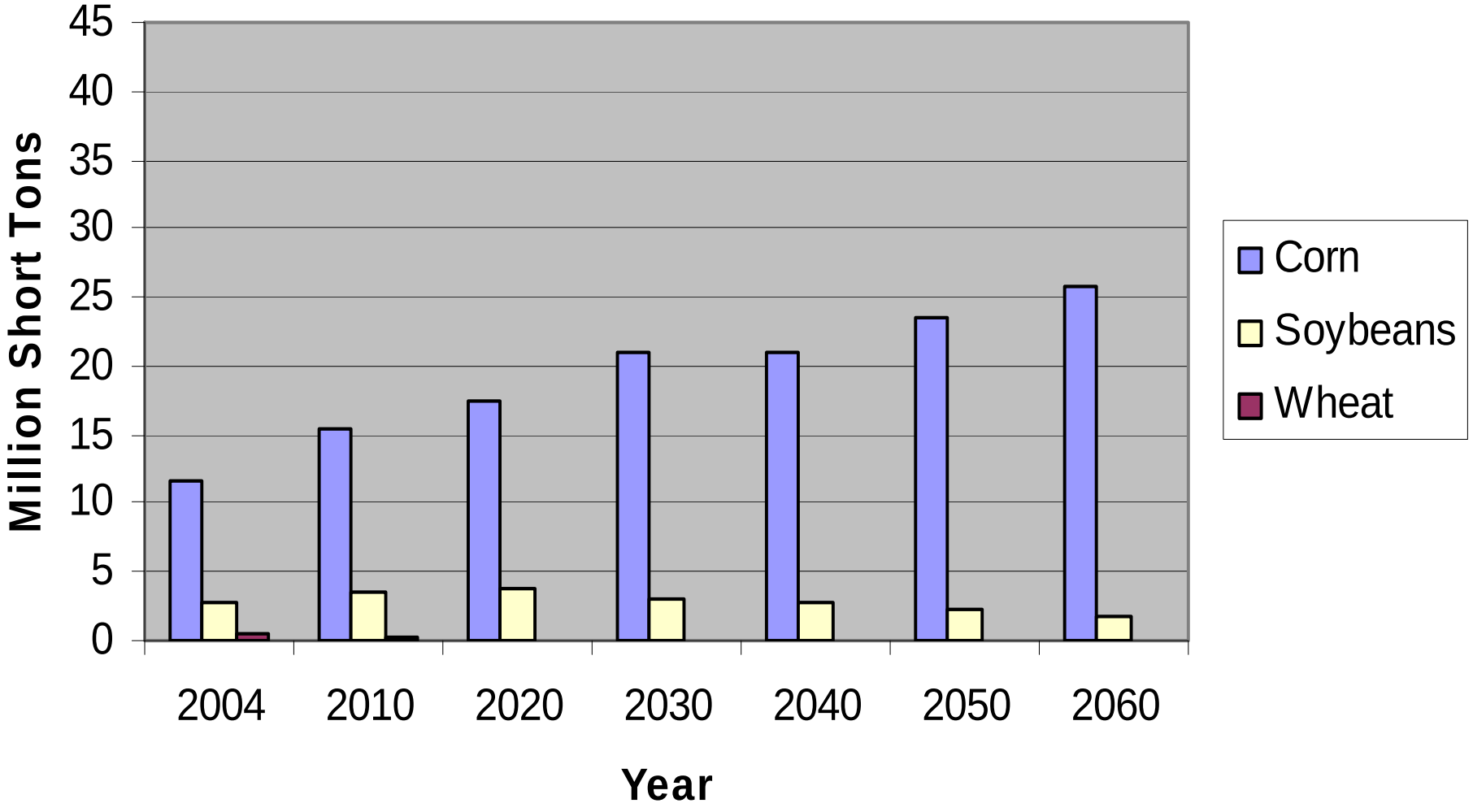
Unconstrained Low Traffic Scenario
IWW



Unconstrained High Traffic Scenario
Mississippi River



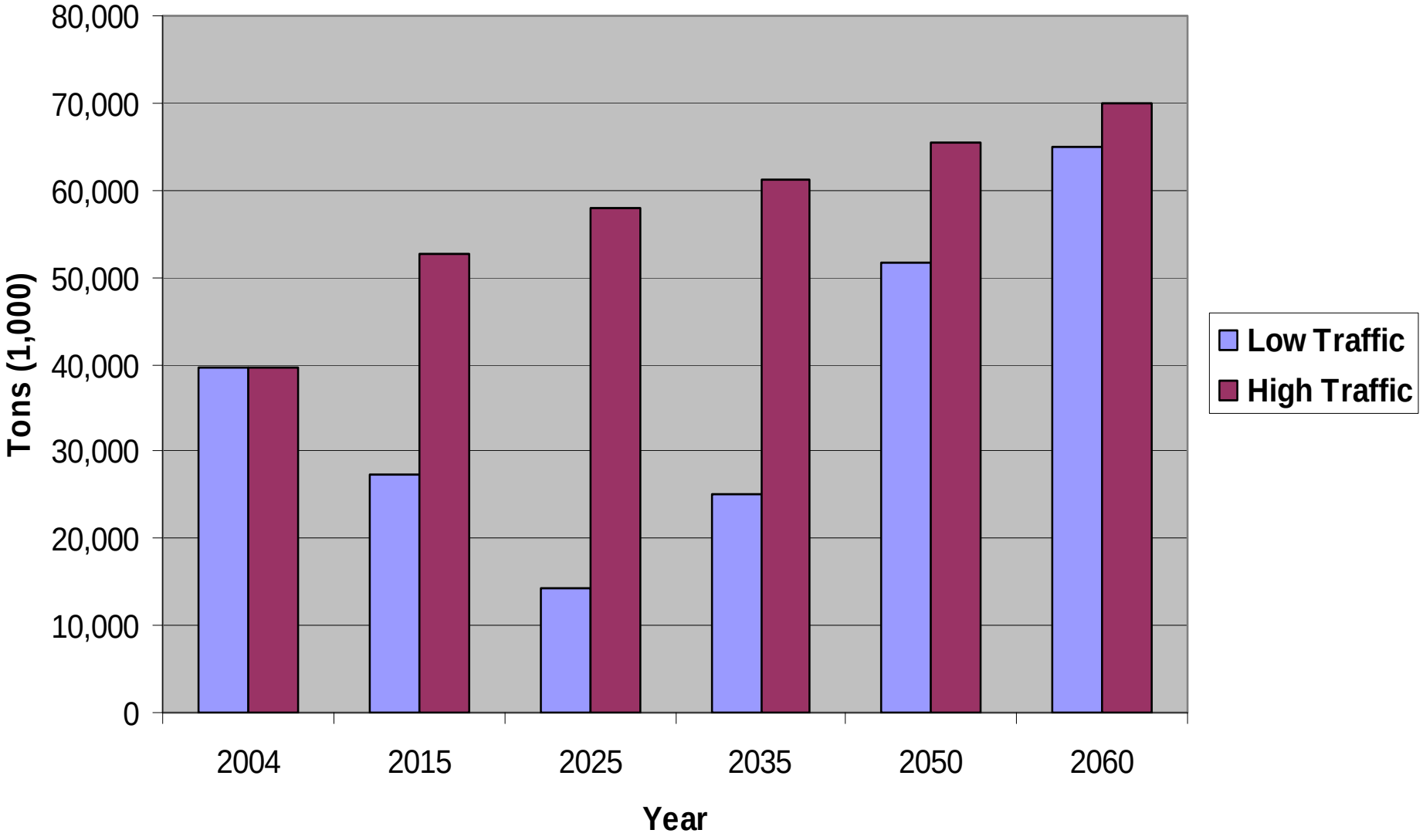
Unconstrained High Traffic Scenario
IWW



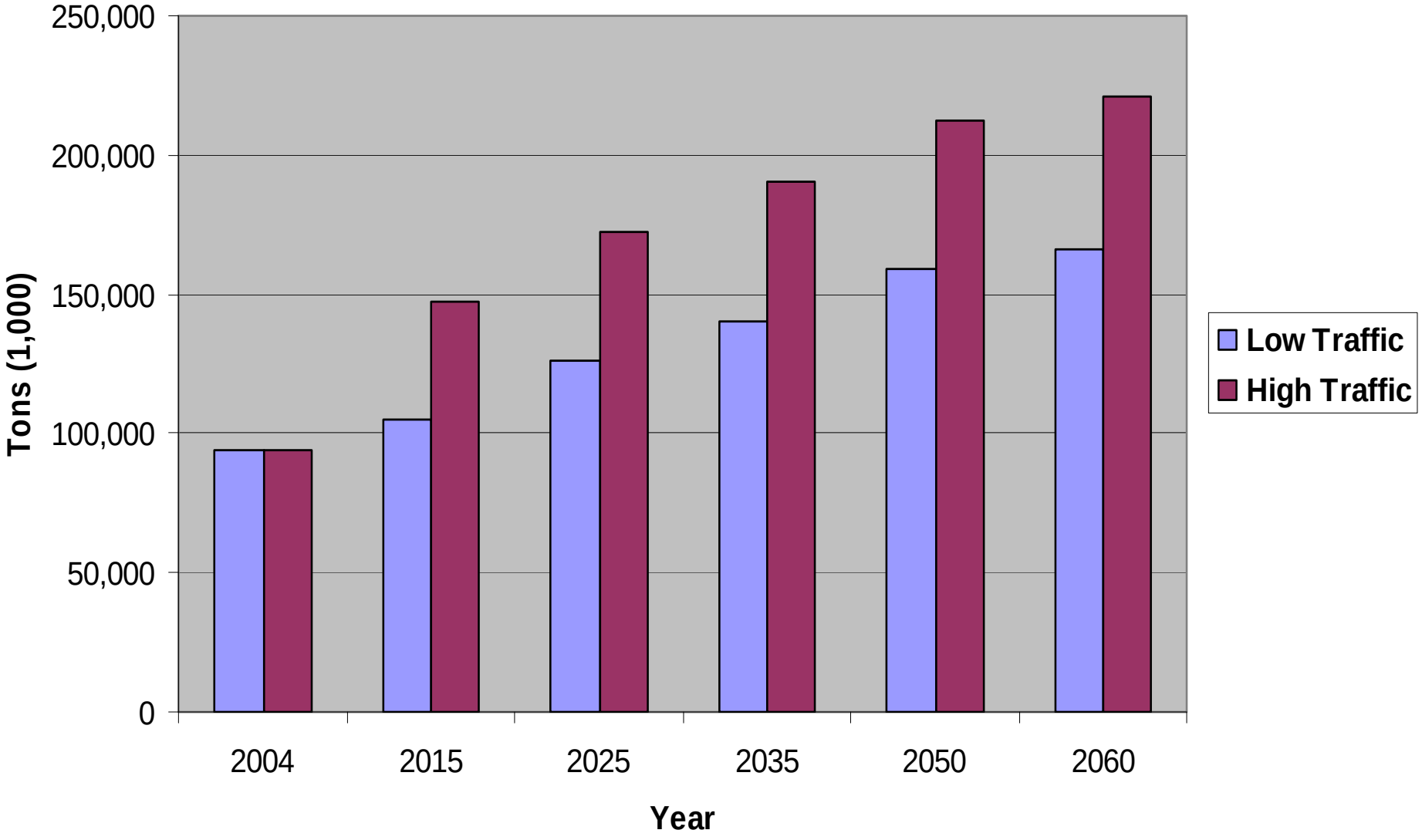
Unconstrained Non-Grain Traffic Forecasts High Traffic (Million Short Tons)							
Waterway/Commodity	**2004**	**2010**	**2020**	**2030**	**2040**	**2050**	**2060**
UMR							
Farm NEC	2.0	2.3	2.3	2.3	2.3	2.3	2.3
Coal (north)	5.5	9.7	13.3	16.8	17.6	18.2	18.5
Coal (south)	16.6	17.3	17.3	21.5	22.3	23.0	23.4
Petroleum	4.6	7.0	8.5	7.3	6.5	5.9	5.6
Agricultural Chemicals	3.5	5.2	5.6	5.9	6.2	6.3	6.4
Aggregates	23.5	32.6	41.2	47.4	52.9	57.8	60.4
Industrial Chemicals (w/o Ethanol)	1.1	1.2	1.3	1.6	1.9	2.2	2.3
Ethanol	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Iron & Steel	2.7	4.6	6.1	7.1	8.1	8.9	9.4
Miscellaneous	4.6	5.3	5.3	5.3	5.3	5.3	5.3
Total Non-Grain	64.3	85.4	101.2	115.5	123.3	130.3	134.0
IWW							
Farm NEC	1.3	1.4	1.4	1.4	1.4	1.4	1.4
Coal	4.2	7.5	8.7	9.8	11.5	13.5	14.6
Petroleum	6.2	9.6	12.3	10.2	8.8	7.8	7.4
Agricultural Chemicals	1.1	1.2	1.2	1.2	1.2	1.2	1.2
Aggregates	5.2	11.5	17.5	21.8	26.1	30.1	32.3
Industrial Chemicals (w/o Ethanol)	2.6	2.7	3.1	3.8	4.5	5.1	5.5
Ethanol	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Iron & Steel	6.5	10.2	13.6	16.0	18.1	20.0	21.1
Miscellaneous	2.2	2.5	2.5	2.5	2.5	2.5	2.5
Total Non-Grain	29.9	47.4	61.1	67.5	74.8	82.3	86.6
UMR + IWW Total	**94.1**	**132.8**	**162.2**	**183.0**	**198.2**	**212.6**	**220.6**

Unconstrained Non-Grain Traffic Forecasts Low Traffic (Million Short Tons)							
Waterway/Commodity	**2004**	**2010**	**2020**	**2030**	**2040**	**2050**	**2060**
UMR							
Farm NEC	2.0	1.6	1.6	1.6	1.6	1.6	1.6
Coal (north)	5.5	6.7	10.1	13.9	14.5	15.0	15.3
Coal (south)	16.6	17.3	17.3	21.5	22.3	23.0	23.4
Petroleum	4.6	3.4	4.3	2.6	1.7	1.2	1.0
Agricultural Chemicals	3.5	2.9	3.3	3.5	3.7	3.9	4.0
Aggregates	23.5	26.3	33.4	38.4	42.9	47.0	49.1
Industrial Chemicals (w/o Ethanol)	1.1	1.0	1.1	1.3	1.5	1.7	1.8
Ethanol	0.2	0.4	0.5	0.5	0.5	0.6	0.6
Iron & Steel	2.7	2.1	3.3	4.1	4.9	5.7	6.1
Miscellaneous	4.6	3.8	3.8	3.8	3.8	3.8	3.8
Total Non-Grain	64.3	65.5	78.6	91.2	97.6	103.4	106.6
IWW							
Farm NEC	1.3	1.2	1.2	1.2	1.2	1.2	1.2
Coal	4.2	3.3	5.2	7.1	8.3	9.8	10.6
Petroleum	6.2	3.4	5.2	2.1	1.0	0.6	0.4
Agricultural Chemicals	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Aggregates	5.2	7.7	12.5	16.1	19.7	23.1	25.0
Industrial Chemicals (w/o Ethanol)	2.6	2.4	2.7	3.1	3.6	4.0	4.2
Ethanol	0.7	0.8	0.8	0.8	0.8	0.8	0.8
Iron & Steel	6.5	5.2	8.0	9.9	11.7	13.5	14.4
Miscellaneous	2.2	1.8	1.8	1.8	1.8	1.8	1.8
Total Non-Grain	29.9	26.9	38.5	43.3	49.3	55.8	59.5
UMR + IWW Total	**94.1**	**92.3**	**117.1**	**134.5**	**146.8**	**159.2**	**166.2**

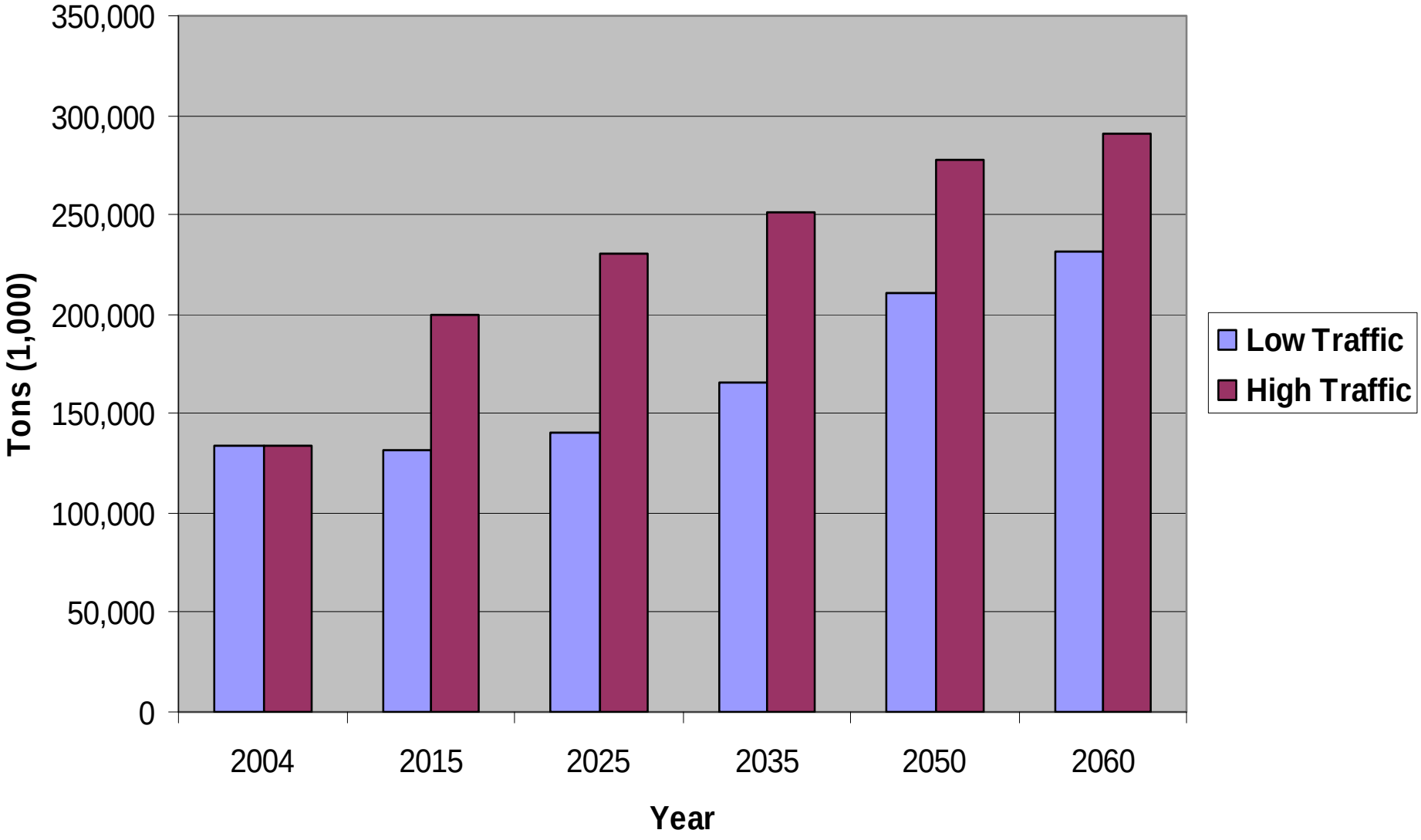
Grain Unconstrained Forecast
System Tonnage

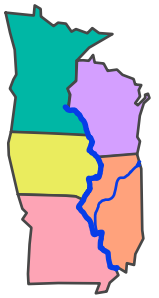


Non-Grain Unconstrained Forecast
System Tonnage



All Commodities Unconstrained Forecast
System Tonnage



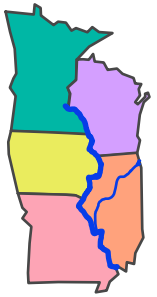


Shipper Response Studies

- ***Transportation Demand for Agricultural Products in the Upper Mississippi and Illinois Basin***

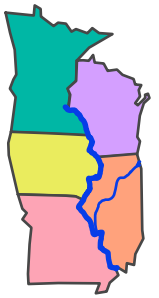
- ***Transportation Demands for the Movement of Non-Agricultural Commodities Pertinent to the Upper Mississippi and Illinois River Basin***

Shipper Response Studies



- **Annual Volume Responses**
- **Mode Choice Responses**

Shipper Response Studies



- **Commodity Class**
  - **Agricultural Products** (corn, soybeans, wheat)
  - **Non-Agricultural Products** (Group A, Group B, Group C)
- **Mode**
  - **Water**
  - **Rail**
  - **Truck**
- **Effect**
  - **Rate**
  - **Reliability**
  - **Time**

Agricultural Products

Elasticity Estimates for

Annual Volume with Respect to Changes in

Rate/Time/Reliability

(Barge)

% Increase in:		Rate	Reliability	Time
10		-0.075	0.619	-0.310
20		-0.153	0.388	-0.321
30		-0.208	0.311	-0.335
40		-0.246	0.272	-0.344
50		-0.272	0.248	-0.348
60		-0.289	0.231	-0.349

Agricultural Products
Switching Elasticity Estimates
with Respect to Changes in
Rate/Time/Reliability
(Barge)

% Increase in:		Rate	Reliability	Time
10		-0.586	0.191	-0.025
20		-0.559	0.187	-0.025
30		-0.530	0.181	-0.025
40		-0.506	0.175	-0.025
50		-0.486	0.169	-0.025
60		-0.470	0.165	-0.025
70		-0.456	0.160	-0.025
80		-0.444	0.156	-0.025
90		-0.433	0.153	-0.025
100		-0.423	0.149	-0.025

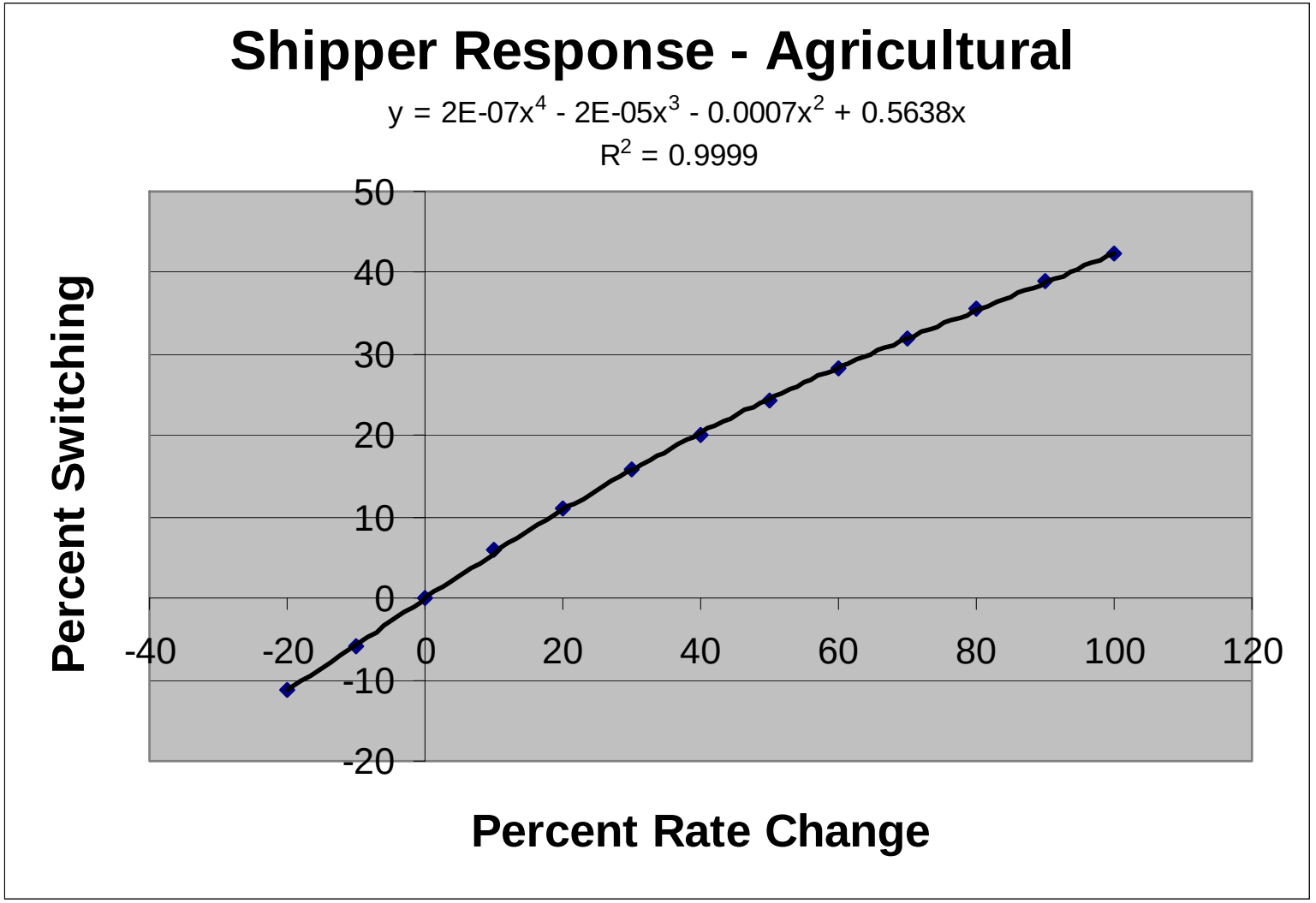
Non-Agricultural Products
Elasticity Estimates for
Annual Volume with Respect to Changes in
Rate/Time/Reliability
(Barge)

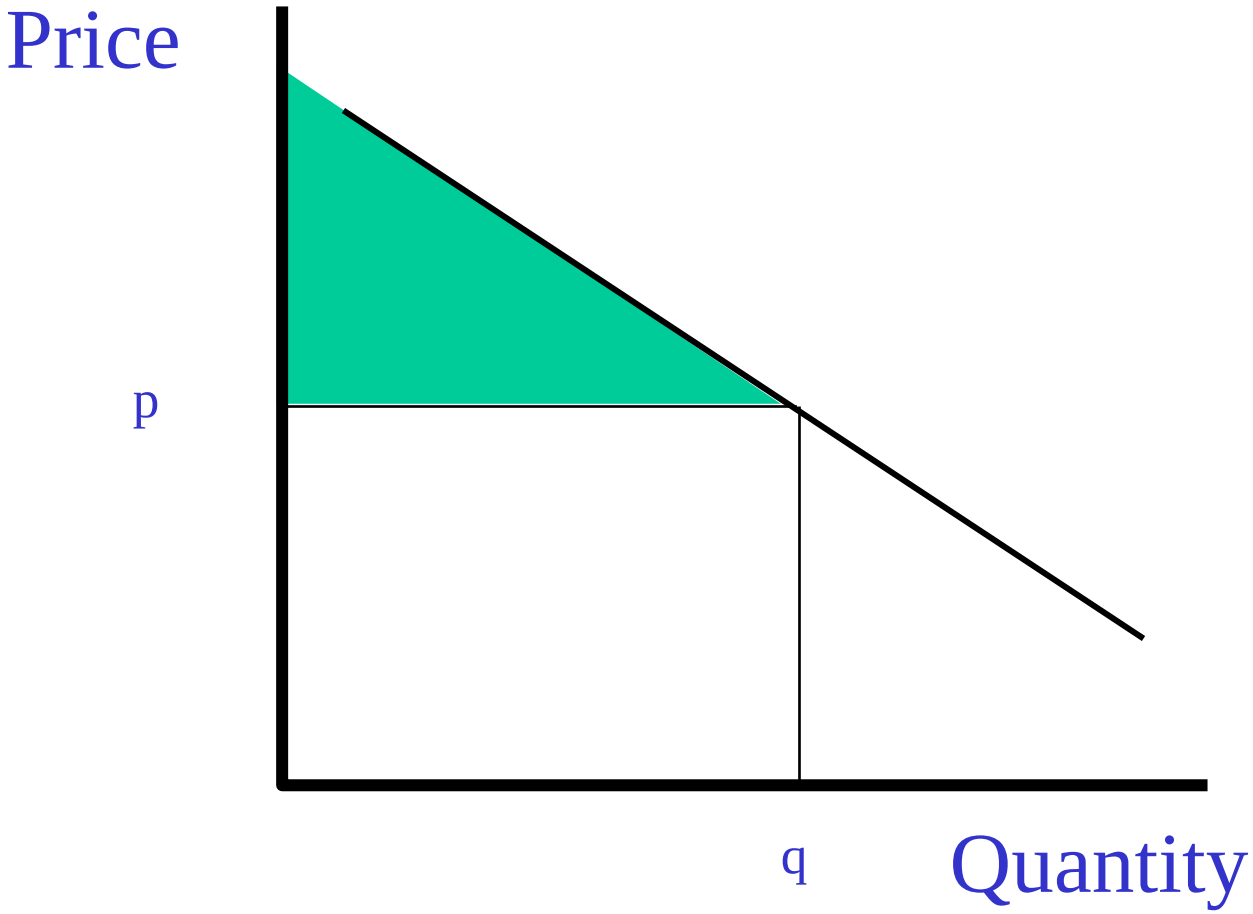
	Rate			Reliability			Time		
% Increase in:	Grp A	Grp B	Grp C	Grp A	Grp B	Grp C	Grp A	Grp B	Grp C
10	-0.866	-0.637	-0.418	0.859	0.501	0.482	-0.905	-1.155	-0.404
20	-0.554	-0.417	-0.281	0.614	0.378	0.365	-0.572	-0.717	-0.269
30	-0.466	-0.358	-0.248	0.565	0.366	0.355	-0.475	-0.585	-0.234
40	-0.433	-0.341	-0.242	0.565	0.385	0.374	-0.438	-0.529	-0.227
50	-0.423	-0.340	-0.247	0.583	0.416	0.405	-0.423	-0.504	-0.230
60	-0.424	-0.347	-0.259	0.607	0.452	0.441	-0.420	-0.493	-0.239

Non-Aricultural Products
Switching Elasticity Estimates
with Respect to Changes in
Rate/Time/Reliability
(Barge)

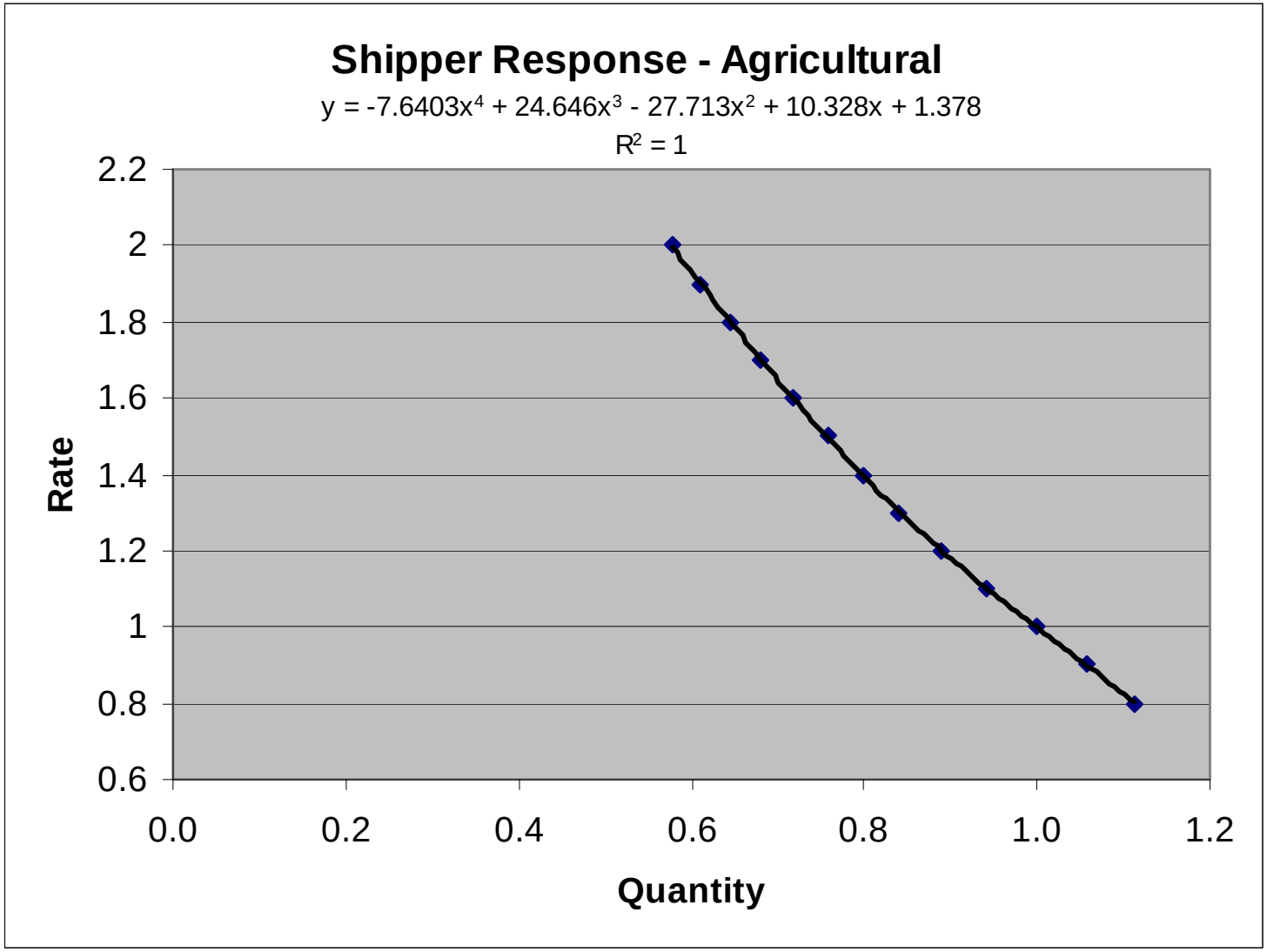
	Rate			Reliability			Time		
% Increase in:	Grp A	Grp B	Grp C	Grp A	Grp B	Grp C	Grp A	Grp B	Grp C
10	-0.860	-0.890	-0.950	1.560	1.030	1.150	-1.160	-1.110	-1.060
20	-0.870	-0.895	-0.945	1.280	0.880	0.970	-0.895	-0.860	-0.825
30	-0.840	-0.860	-0.907	1.103	0.780	0.857	-0.760	-0.730	-0.700
40	-0.803	-0.818	-0.858	0.975	0.708	0.773	-0.668	-0.645	-0.618
50	-0.758	-0.774	-0.808	0.876	0.652	0.706	-0.602	-0.580	-0.558
60	-0.717	-0.730	-0.760	0.797	0.603	0.652	-0.550	-0.532	-0.512
70	-0.679	-0.690	-0.716	0.733	0.564	0.606	-0.507	-0.491	-0.474
80	-0.643	-0.651	-0.674	0.679	0.529	0.568	-0.473	-0.459	-0.443
90	-0.609	-0.617	-0.637	0.631	0.499	0.533	-0.443	-0.430	-0.416
100	-0.578	-0.585	-0.603	0.591	0.472	0.503	-0.418	-0.406	-0.393

Shipper Mode Choice Response as a Function of Rate Agricultural and Non-Agricultural						
				Agricultural		Non-Agricultural
		Percent Rate		Percent		Percent
Source		Increase		Switching		Switching
Extension of results		-20		-11.2		-17.9
Extension of results		-10		-5.9		-8.9
Train - Wilson		0		0.0		0
Train - Wilson		10		5.9		8.9
Train - Wilson		20		11.2		17.9
Train - Wilson		30		15.9		25.8
Train - Wilson		40		20.2		32.7
Train - Wilson		50		24.3		38.7
Train - Wilson		60		28.2		43.8
Train - Wilson		70		31.9		48.3
Train - Wilson		80		35.6		52.1
Train - Wilson		90		39.0		55.5
Train - Wilson		100		42.3		58.8


Shipper Response - Agricultural
y = 2E-07x4 - 2E-05x3 - 0.0007x2 + 0.5638x
R2 = 0.9999
Percent Switching
50
40
30
20
10
0
-10
-20
-40
-20
0
20
40
60
80
100
120
Percent Rate Change


Price
p
q
Quantity

Shipper Mode Choice Response as a Function of Rate (Proportions)			
Agricultural and Non-Agricultural			
Source	Proportion of Rate	Agricultural Proportion Retained	Non-Agricultural Proportion Retained
Extension of results	0.8	1.1118	1.1790
Extension of results	0.9	1.0586	1.0890
Train - Wilson	1	1	1
Train - Wilson	1.1	0.9414	0.9110
Train - Wilson	1.2	0.8882	0.8210
Train - Wilson	1.3	0.8410	0.7420
Train - Wilson	1.4	0.7978	0.6730
Train - Wilson	1.5	0.7572	0.6130
Train - Wilson	1.6	0.7183	0.5620
Train - Wilson	1.7	0.6806	0.5170
Train - Wilson	1.8	0.6445	0.4790
Train - Wilson	1.9	0.6100	0.4450
Train - Wilson	2	0.5773	0.4120


Shipper Response - Agricultural
y = -7.6403x4 + 24.646x3 - 27.713x2 + 10.328x + 1.378
R2 = 1
Rate
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.0
0.2
0.4
0.6
0.8
1.0
1.2
Quantity

Unconstrained Traffic Forecasts
Low Traffic
(Million Short Tons)

Waterway/Commodity	2004	2010	2020	2030	2040	2050	2060
UMR							
Corn	17.5	14.1	2.2	0.5	18.0	27.1	36.2
Wheat	2.5	2.6	2.2	0.0	0.0	0.0	0.0
Soybeans	5.0	7.3	6.8	7.1	5.5	4.4	3.2
Farm NEC	2.0	1.6	1.6	1.6	1.6	1.6	1.6
Coal (north)	5.5	6.7	10.1	13.9	14.5	15.0	15.3
Coal (south)	16.6	17.3	17.3	21.5	22.3	23.0	23.4
Petroleum	4.6	3.4	4.3	2.6	1.7	1.2	1.0
Agricultural Chemicals	3.5	2.9	3.3	3.5	3.7	3.9	4.0
Building Materials	23.5	26.3	33.4	38.4	42.9	47.0	49.1
Industrial Chemicals (w/o Ethanol)	1.1	1.0	1.1	1.3	1.5	1.7	1.8
Ethanol	0.2	0.4	0.5	0.5	0.5	0.6	0.6
Iron & Steel	2.7	2.1	3.3	4.1	4.9	5.7	6.1
Miscellaneous	4.6	3.8	3.8	3.8	3.8	3.8	3.8
Total Grain	24.9	24.0	11.1	7.5	23.5	31.5	39.4
Total Non-Grain	64.3	65.5	78.6	91.2	97.6	103.4	106.6
Total	**89.2**	**89.5**	**89.7**	**98.7**	**121.0**	**134.9**	**146.1**
IWW							
Corn	11.5	9.3	1.4	0.3	11.8	17.8	23.9
Wheat	0.5	0.5	0.4	0.0	0.0	0.0	0.0
Soybeans	2.7	4.0	3.7	3.9	3.0	2.4	1.8
Farm NEC	1.3	1.2	1.2	1.2	1.2	1.2	1.2
Coal (coke + lignite)	4.2	3.3	5.2	7.1	8.3	9.8	10.6
Petroleum	6.2	3.4	5.2	2.1	1.0	0.6	0.4
Agricultural Chemicals	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Building Materials	5.2	7.7	12.5	16.1	19.7	23.1	25.0
Industrial Chemicals (w/o Ethanol)	2.6	2.4	2.7	3.1	3.6	4.0	4.2
Ethanol	0.7	0.8	0.8	0.8	0.8	0.8	0.8
Iron & Steel	6.5	5.2	8.0	9.9	11.7	13.5	14.4
Miscellaneous	2.2	1.8	1.8	1.8	1.8	1.8	1.8
Total Grain	14.7	13.8	5.6	4.2	14.9	20.3	25.6
Total Non-Grain	29.9	26.9	38.5	43.3	49.3	55.8	59.5
Total	**44.6**	**40.6**	**44.1**	**47.5**	**64.1**	**76.0**	**85.2**
UMR + IWW Total	**133.8**	**130.1**	**133.8**	**146.2**	**185.2**	**210.9**	**231.3**

Unconstrained Traffic Forecasts
High Traffic
(Million Short Tons)

Waterway/Commodity	2004	2010	2020	2030	2040	2050	2060
UMR							
Corn	17.5	23.4	26.3	31.8	31.9	35.5	39.1
Wheat	2.5	1.8	0.4	0.0	0.0	0.0	0.0
Soybeans	5.0	6.3	6.9	5.6	5.2	4.2	3.3
Farm NEC	2.0	2.3	2.3	2.3	2.3	2.3	2.3
Coal (north)	5.5	9.7	13.3	16.8	17.6	18.2	18.5
Coal (south)	16.6	17.3	17.3	21.5	22.3	23.0	23.4
Petroleum	4.6	7.0	8.5	7.3	6.5	5.9	5.6
Agricultural Chemicals	3.5	5.2	5.6	5.9	6.2	6.3	6.4
Building Materials	23.5	32.6	41.2	47.4	52.9	57.8	60.4
Industrial Chemicals (w/o Ethanol)	1.1	1.2	1.3	1.6	1.9	2.2	2.3
Ethanol	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Iron & Steel	2.7	4.6	6.1	7.1	8.1	8.9	9.4
Miscellaneous	4.6	5.3	5.3	5.3	5.3	5.3	5.3
Total Grain	24.9	31.5	33.5	37.4	37.1	39.7	42.4
Total Non-Grain	64.3	85.4	101.2	115.5	123.3	130.3	134.0
Total	**89.2**	**116.9**	**134.7**	**152.9**	**160.4**	**170.0**	**176.4**
IWW							
Corn	11.5	15.4	17.3	20.9	21.0	23.4	25.8
Wheat	0.5	0.3	0.1	0.0	0.0	0.0	0.0
Soybeans	2.7	3.5	3.8	3.1	2.9	2.3	1.8
Farm NEC	1.3	1.4	1.4	1.4	1.4	1.4	1.4
Coal (coke + lignite)	4.2	7.5	8.7	9.8	11.5	13.5	14.6
Petroleum	6.2	9.6	12.3	10.2	8.8	7.8	7.4
Agricultural Chemicals	1.1	1.2	1.2	1.2	1.2	1.2	1.2
Building Materials	5.2	11.5	17.5	21.8	26.1	30.1	32.3
Industrial Chemicals (w/o Ethanol)	2.6	2.7	3.1	3.8	4.5	5.1	5.5
Ethanol	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Iron & Steel	6.5	10.2	13.6	16.0	18.1	20.0	21.1
Miscellaneous	2.2	2.5	2.5	2.5	2.5	2.5	2.5
Total Grain	14.7	19.2	21.2	24.0	23.9	25.7	27.6
Total Non-Grain	29.9	47.4	61.1	67.5	74.8	82.3	86.6
Total	**44.6**	**66.6**	**82.2**	**91.5**	**98.7**	**108.1**	**114.2**
UMR + IWW Total	**133.8**	**183.5**	**216.9**	**244.4**	**259.1**	**278.1**	**290.6**

Upper Mississippi Unconstrained Low Traffic - No Lock Use

Commodity Grp	2004	2010	2020	2030	2040	2050	2060
Corn	4.5	3.6	0.6	0.1	4.6	6.9	9.3
Wheat	1.5	1.6	1.3	0.0	0.0	0.0	0.0
Soybeans	2.1	3.1	2.9	3.0	2.3	1.9	1.4
Farm NEC	0.5	0.4	0.4	0.4	0.4	0.4	0.4
Coal (north)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Coal (south)	16.6	17.3	17.3	21.5	22.3	23.0	23.4
Petroleum	0.9	0.7	0.9	0.5	0.3	0.3	0.2
Agg. Chems.	0.7	0.6	0.7	0.7	0.8	0.8	0.8
Building Materials	19.5	21.8	27.7	31.8	35.6	38.9	40.7
Ind. Chems. (w/o Ethanol)	0.4	0.4	0.5	0.5	0.6	0.7	0.7
Ethanol	0.04	0.1	0.1	0.1	0.1	0.1	0.1
Iron & Steel	1.2	0.9	1.5	1.9	2.2	2.6	2.7
Miscellaneous	1.9	1.6	1.6	1.6	1.6	1.6	1.6
Total	49.9	52.1	55.2	62.1	70.8	77.1	81.3

Illinois Unconstrained Low Traffic - No Lock Use

Commodity Grp	2004	2010	2020	2030	2040	2050	2060
Corn	0.019	0.016	0.002	0.001	0.020	0.030	0.040
Wheat	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Soybeans	0.003	0.005	0.004	0.005	0.004	0.003	0.002
Farm NEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Coal (coke + lignite)	2.1	1.7	2.6	3.6	4.2	4.9	5.4
Petroleum	0.6	0.3	0.5	0.2	0.1	0.1	0.0
Agg. Chems.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Building Materials	1.8	2.7	4.4	5.7	7.0	8.2	8.8
Ind. Chems. (w/o Ethanol)	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Ethanol	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Iron & Steel	0.04	0.03	0.04	0.1	0.1	0.1	0.1
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	4.6	4.8	7.6	9.6	11.4	13.3	14.4

Upper Mississippi Unconstrained High Traffic - No Lock Use

Commodity Grp	2004	2010	2020	2030	2040	2050	2060
Corn	4.5	6.0	6.7	8.1	8.2	9.1	10.0
Wheat	1.5	1.1	0.2	0.0	0.0	0.0	0.0
Soybeans	2.1	2.7	2.9	2.4	2.2	1.8	1.4
Farm NEC	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Coal (north)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Coal (south)	16.6	17.3	17.3	21.5	22.3	23.0	23.4
Petroleum	0.9	1.4	1.7	1.5	1.3	1.2	1.2
Agg. Chems.	0.7	1.1	1.1	1.2	1.2	1.3	1.3
Building Materials	19.5	27.0	34.2	39.2	43.8	47.9	50.1
Ind. Chems. (w/o Ethanol)	0.4	0.5	0.5	0.7	0.8	0.9	0.9
Ethanol	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Iron & Steel	1.2	2.1	2.7	3.2	3.6	4.0	4.2
Miscellaneous	1.9	2.2	2.2	2.2	2.2	2.2	2.2
Total	49.9	61.9	70.3	80.6	86.3	92.0	95.3

Illinois Unconstrained High Traffic - No Lock Use

Commodity Grp	2004	2010	2020	2030	2040	2050	2060
Corn	0.02	0.03	0.03	0.04	0.04	0.04	0.04
Wheat	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Soybeans	0.003	0.004	0.004	0.004	0.003	0.003	0.002
Farm NEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Coal (coke + lignite)	2.1	3.8	4.4	5.0	5.8	6.8	7.4
Petroleum	0.6	0.9	1.1	1.0	0.8	0.7	0.7
Agg. Chems.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Building Materials	1.8	4.1	6.2	7.7	9.2	10.6	11.4
Ind. Chems. (w/o Ethanol)	0.01	0.01	0.01	0.01	0.02	0.02	0.02
Ethanol	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Iron & Steel	0.04	0.06	0.08	0.09	0.10	0.11	0.12
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	4.6	8.9	11.8	13.8	16.0	18.4	19.7

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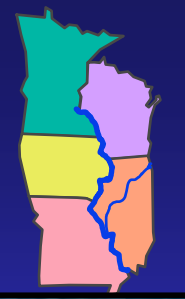
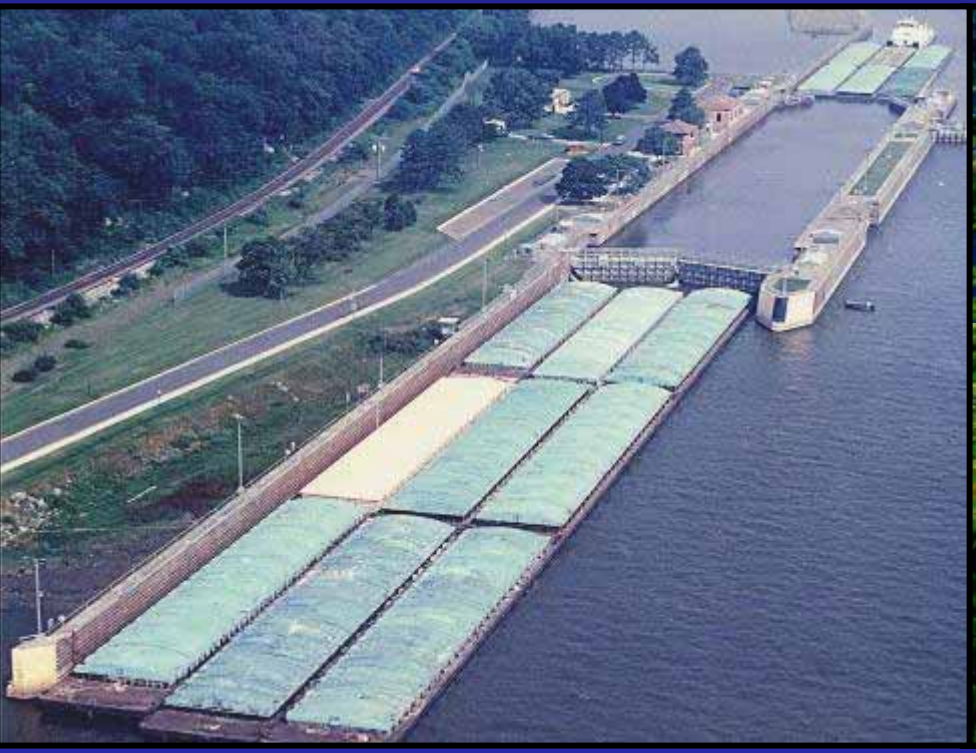
Upper Mississippi River System





Navigation & Ecosystem Sustainability Program (NESP)

One Team: Relevant, Ready, Responsive and Reliable

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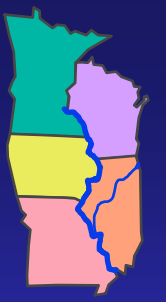
Institutional Arrangements



- USFWS and USACE – October 2007
  - Communicate between agencies
  - Gain chain-of-command support
  - Manage programs through AM
  - Create collaborative environment
- Engage NECC-ECC in AM discussion
- WRDA – pivotal point for IA

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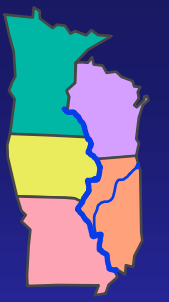
Reevaluation
Interim Report - Schedule



- 15 Aug 07 — Preliminary Findings
- 30 Sep 07 — Partner Comments
- 30 Oct 07 — EPR Panel Comments
- 31 Dec 07 — Draft Report
- Jan-Feb — Public Review
- 31 Mar 08 — Final Interim Report

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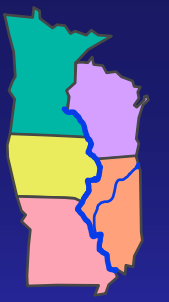
Reevaluation
Preliminary Findings



- Approach
- National Freight Transportation System
- Inland Waterways
- Recommended Plan - Planning Objectives

- Risk, Conclusions & Recommendations

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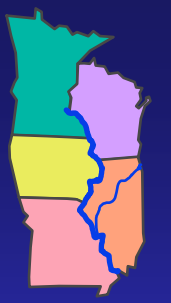
Reevaluation Approach



- Executive Summary
- Introduction
- National Transportation System
- Waterways
  - Inland Waterway System
  - Recommended Plan
- Forecast and Evaluation
  - NED Traditional – LTS, HTS
  - NED Multimodal – MTS
  - RED, EQ, OSE
- Risks, Conclusions, Recommendations

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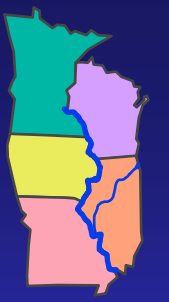
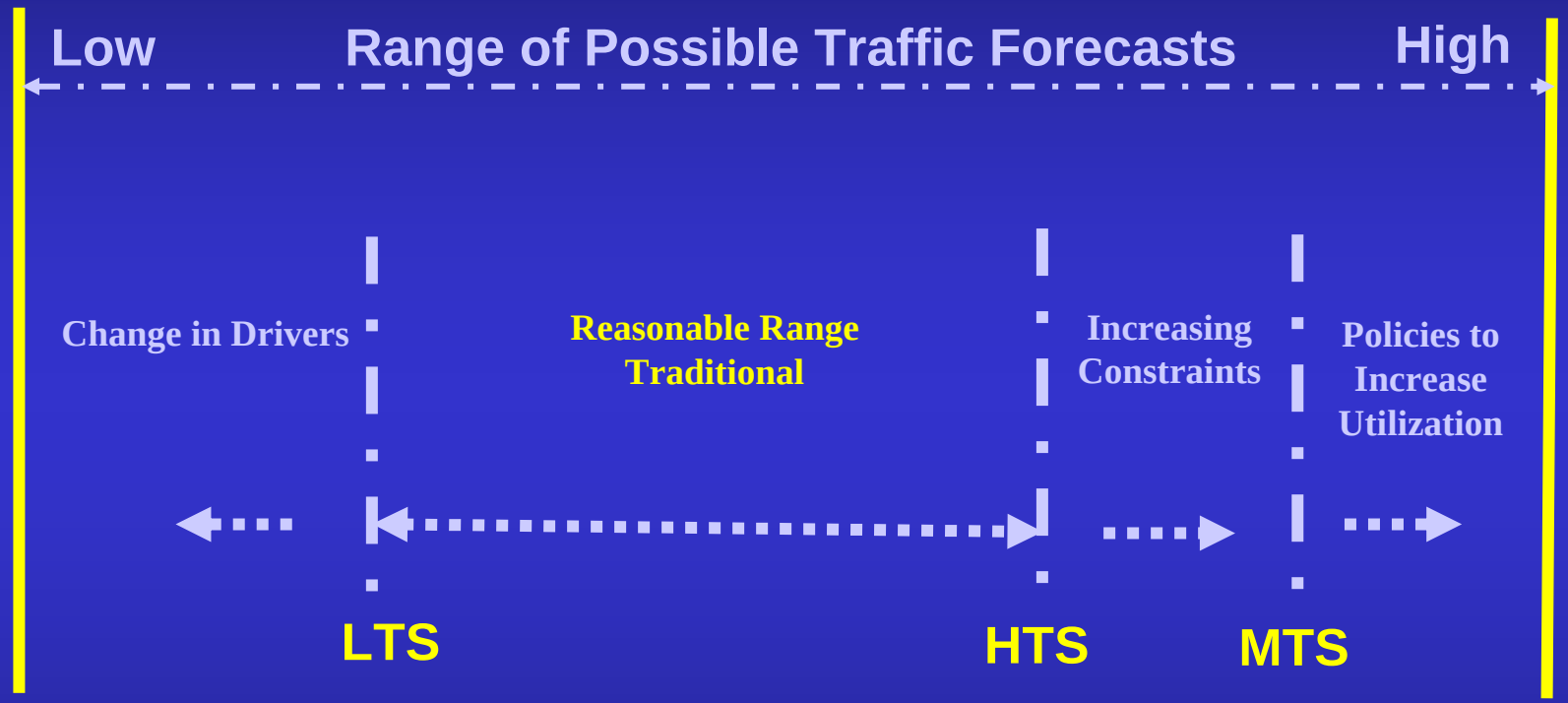
Reevaluation Risk Framework





Flat or Falling Traffic (MIN)

Full System Utilization (MAX)

LTS = Low Traffic Scenario
HTS = High Traffic Scenario
MTS = Multimodal Transportation Scenario

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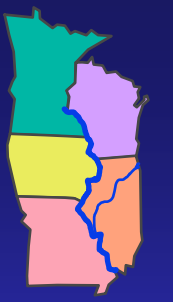
Reevaluation
National Transportation System



- Projected increases in freight will overwhelm infrastructure at current rate of investment
- Need to increase investment to ensure efficient, reliable, safe, and secure movement of goods
- Uncertainty in how need will manifest and be satisfied

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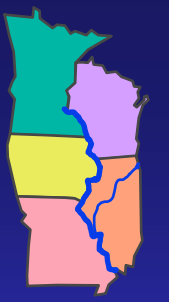
Reevaluation
Inland Waterway System



- Inland Waterway System is critical to the Nation
- System is deteriorating
- Freight movement on system is flat
- System has potential to be part of the solution

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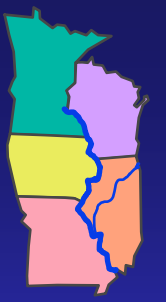
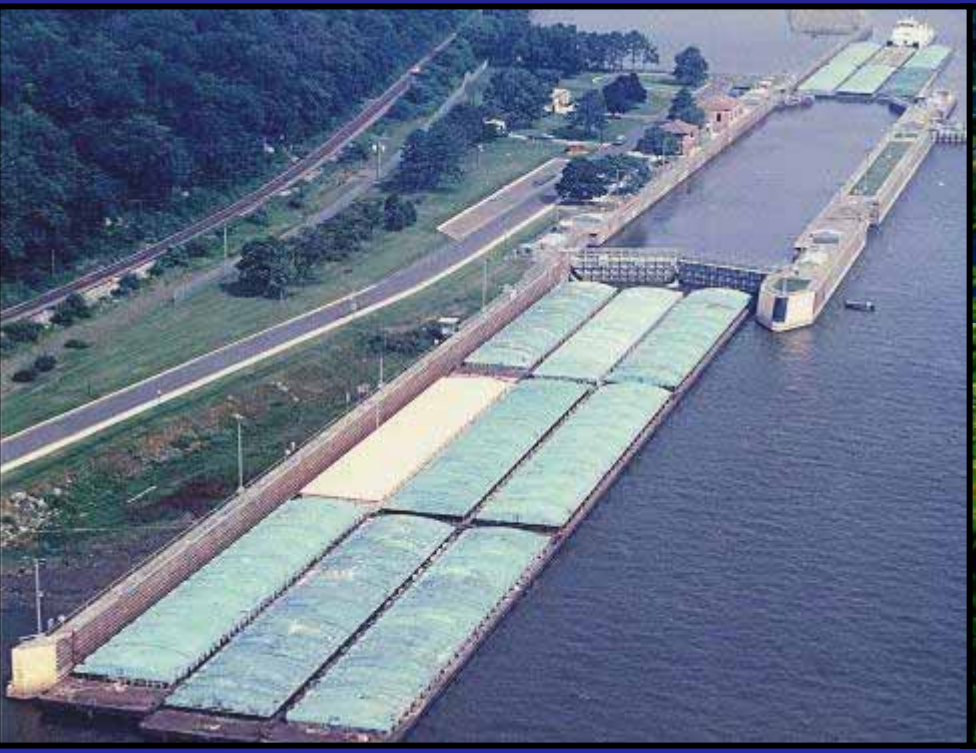
Reevaluation Recommended Plan



- Efficiency and Effectiveness
- Completeness, Acceptability, Sustainability
- Safety
- Reliability
- Adaptability
- Vision and goals for national transportation system

Upper Mississippi River System

US Army Corps of Engineers®



To seek long-term sustainability of the economic uses and ecological integrity of the Upper Mississippi River System

One Team: Relevant, Ready, Responsive and Reliable

KEY FINDINGS

CHAPTER 1

- Meeting America's transportation needs for the future will require a multi-modal approach, which preserves what has been built to date, improves system performance, and adds substantial capacity in highways, railroads, airports, inland waterways, ports and border crossings. It must also go beyond transportation improvements and include policies addressing land use, energy, global climate change, the environment, and community quality of life.
- Nearly all aspects of our national economic well being, security and standard of living are directly dependent on the efficiency and effectiveness of a complex transportation network. Whether it is the bus, train, or auto we use for our daily commute to work or the food and commodities we use, all rely heavily on transportation of people, products or services across space and time.
- Congestion is one of the single largest threats to our economic prosperity and way of life. Whether it takes the form of trucks stalled in traffic, barges backed up at undersized locks, airplanes circling over crowded airports or cargo stuck in overwhelmed seaports, congestion is costing America an estimated $200 billion a year!
- Meeting the future transportation requirements necessary to maintain our economic standing in the world markets will require an inventive and flexible multimodal focus combined with unprecedented planning and collaboration across a wide range of public and private sector agencies, organizations and experts.
- With staggering growth looming on America's network, American shippers realize that the nations transportation system cannot handle today's freight, much less those forecast for the next three decades.
- Our countries wealth, security and productive capacity are directly and intimately linked to our ability to efficiently, reliably, safely and securely transport freight.

CHAPTER 2

- Because it operates largely out of sight and out of mind of a significant proportion of the US population, the Inland Waterway System has often been referred to as the "invisible transportation infrastructure."
- The Inland Waterway System is comprised of rivers, waterways, canals, and the locks and dams that provide some 25,000 miles of commercially-navigable waters. The Inland Waterway System moves approximately 15 percent of the Nation's cargo at a significantly lower transportation cost/ton than rail or truck. In 2005, this system carried 624 million tons of cargo—principally raw materials and liquid and bulk primary products, like coal, petroleum, chemicals, grain, processed metals, cement, sand and gravel.
- Shipping by barge is more energy efficient than shipping by truck or rail. Supporting this conclusion are the statistical data reflecting the relative distance each mode of transportation can carry one ton of cargo for every gallon of fuel burned. These figures show that shallow

draft water transportation is almost nine times more economical, thus more efficient, than trucks and over 2 ½ times more efficient than rail.

Truck	70 miles
Train	420 miles
Barge	530miles

- The commercially-navigable portions of the UMR extend from the confluence with the Ohio River, River Mile (RM) 0.0, to Upper St. Anthony Falls Lock in Minneapolis-St. Paul, Minnesota, RM 854.0. The IWW extends from its confluence with the Mississippi River at Grafton, Illinois, RM 0.0 to T. J. O'Brien Lock in Chicago, Illinois, RM 327.0. The UMR-IWW Navigation System contains 1,200 miles of 9-foot deep channels, 38 lock and dam sites, and thousands of channel training structures.
- Most of the locks and dams within the UMR-IWW navigation system were built by the Corps in the 1930s, with an initial projected life span of about 50 years, and most were originally designed to accommodate 600-foot-long barge tows. Standard tows since then have grown from 600 feet to over 1,100 feet, nearly the length of four football fields. Twenty-three of the UMR's 29 lock locations have chambers that are 600 ft in length. The upper and lower St. Anthony Falls locks and Lock 1 are 400 ft. in length. Three locks—Lock 19, Lock 26 (renamed the Melvin Price Lock and Dam), and Lock 27—are 1,200 ft. in length. With a 1,200 ft. lock chamber, a 1,100-ft. barge tow can pass through in 45 minutes. In contrast, it generally takes between 90 and 120 minutes for a 1,100-ft. barge tow to pass through a 600-ft. lock due to the need to double-lock the barge tow.
- Since the 1980s, the UMR-IWW has experienced increasing traffic congestion and delays related to its aging infrastructure and limited lock capacity. Unplanned closures due to aging infrastructure have increased, thus reducing the number of days annually that locks are open to traffic.
- The Corps of Engineers reports that the UMR-IWW system has over half (19 of 36) of the most delayed lock sites in the country's system of inland waterways. Existing delays vary based on location in the system, but are generally greatest furthest downstream
- The system is a vital part of our national economy. The system is significant for certain key exports and the Nation's balance of trade. In 2005, the UMR moved just over 109 million tons of commercial cargo. This tonnage was worth almost $19 billion. Of the almost 84.2 million tons leaving the river, two-thirds was destined for the Lower Mississippi River. Another 10 percent moved to the Ohio River and its tributaries. Comparatively, in 2005 the IWW moved 51.6 million tons of commercial cargo worth $9.5 billion. The waterway's traffic is dominated by grain, corn and soybeans. Corn and soybeans are shipped via the waterway at roughly 60 to 70 percent of the cost of shipping over the same distance by rail.
- The UMR-IWW System Navigation Feasibility Study was initiated in April 1993 to address the potential economic losses to the Nation for significant traffic delays at locks on the commercial navigation system between 2000 and 2050. In 2001, the study was restructured to address the ongoing cumulative effects of navigation, and the ecosystem restoration needs, with a goal of attaining an environmentally sustainable navigation system, in addition to ensuring an efficient transportation system for the future.

- The Feasibility Study resulted in successful formulation of the Recommended Plan for navigation efficiency improvements, ecosystem restoration, and dual-purpose operation that, if implemented in accordance to plan, will go a long way towards satisfying the shared vision of long-term sustainability of the economic uses and ecological integrity of the Upper Mississippi River System. The Recommended Plan was developed collaboratively by stakeholders with diverse interests in the UMRS.
- The navigation component of the Recommended Plan is a well-balanced navigation project when evaluated across a broad range of planning objectives, which align with the vision, goals, and objectives for the national freight transportation system – efficiency and effectiveness, completeness, acceptability and sustainability, safety, reliability, and adaptability.
- The Recommended Plan, however, is only part of what is needed to optimize the waterways and prepare them for their role in moving the increase in freight projected over the planning horizon. Preserving and optimizing use of the Inland Waterway System, replacement of which is valued at over $125 billion in today's dollars, requires stepped-up investment in maintenance, rehabilitation, and efficiency improvements. It also will require collaboration among Federal, state, and private sector entities to make waterways an integral part of intermodal freight transportation in the future.

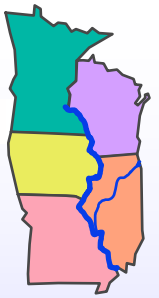
UMRS - Vision

Long-term sustainability of the economic uses and ecological integrity of the UMRS

Recommended Dual Purpose Plan

- $2.4 Billion Navigation Efficiency Framework
- $5.3 Billion Ecosystem Restoration Framework
- Adaptive Implementation
  - ✓ Nav. Eff. 15 yr increment = $1.88 B
  - ✓ Eco. Rest. 15 yr increment = $1.46 B
  - ✓ Decision Checkpoints at 3, 7, and 15 yrs.

ECOSYSTEM RESTORATION IMPLEMENTATION



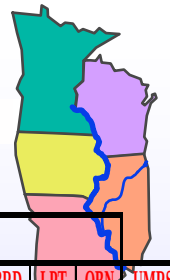
$1.46 billion in First 15 years

- Fish Passage @ Dams 4,8,22, and 26
- Changes in Water Level Control @ Dams 25 and 16
- Forest & Cultural Resources Mngt Plans
- Adaptive Implementation of 225 small projects of less than $25 million each
  - Island Building
  - Water Level Management
  - Backwater/Side Channel Restoration
  - Wing Dam/Dike Alterations
  - Island Shoreline Protection
- 35,000 Acres of Floodplain Restoration
- Continued Study and Monitoring

System Impacts

- Fish
- Plants
- Mussels
- Bank Erosion
- Backwater Sediment

Incremental Traffic Comparison of Low Traffic, High Traffic, and PEIS Mitigation Traffic Forecasts



Low Traffic

	Upper Mississippi River																												
Year	USA	LSA	P1	P2	P3	P4	P5	P5A	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P24	P25	P26	P27	OR
2010	3	3	3	15	15	13	14	14	8	8	9	15	11	7	21	20	20	22	22	23	23	19	20	20	24	25	24	19	17	17
2020	16	16	16	105	105	101	114	114	102	102	101	127	118	122	130	129	116	116	111	117	115	106	109	111	113	114	114	134	141	141
2030	36	36	36	103	103	103	121	121	114	114	114	156	148	154	167	166	155	156	155	168	166	153	157	159	159	161	161	221	220	220
2040	52	52	51	187	187	210	215	215	164	164	162	140	197	186	230	237	252	258	272	283	288	301	311	318	328	348	347	503	493	493
2050	70	70	71	221	221	254	255	255	171	171	174	136	230	208	272	285	327	338	361	375	386	415	430	444	460	488	487	477	467	467

	Illinois Waterway									
Year	ALT	LGR	PEO	STR	MAR	DRS	BRD	LPT	OBN	UMRS
2010	-5	-18	-11	-24	-24	-26	-24	-25	4	322
2020	20	-2	1	-15	-16	-25	-21	-22	10	3,107
2030	60	60	61	35	30	13	11	10	37	4,520
2040	156	312	300	225	213	183	156	153	115	9,259
2050	-11	187	182	146	145	140	120	119	86	10,100

Total 27,308

High Traffic

	Upper Mississippi River																												
Year	USA	LSA	P1	P2	P3	P4	P5	P5A	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P24	P25	P26	P27	OR
2010	5	5	4	23	23	19	22	22	13	13	14	23	17	11	31	30	30	32	34	35	34	29	30	30	37	38	37	31	27	27
2020	27	27	27	218	218	220	236	236	233	233	230	257	263	267	284	285	265	269	263	270	270	267	276	285	295	301	300	319	329	329
2030	66	66	65	271	271	297	316	316	337	337	335	371	404	408	436	442	437	456	464	480	490	509	531	559	582	637	636	1,337	1,308	1,308
2040	131	131	130	398	398	452	456	456	412	412	412	375	491	481	546	563	632	641	673	695	712	759	788	820	852	921	920	1,666	1,625	1,625
2050	153	153	154	419	419	479	478	478	401	401	408	355	513	491	573	596	704	713	753	778	802	864	899	940	978	1,052	1,051	1,337	1,300	1,300

	Illinois Waterway									
Year	ALT	LGR	PEO	STR	MAR	DRS	BRD	LPT	OBN	UMRS
2010	-6	-28	-17	-40	-40	-44	-40	-42	9	479
2020	19	-2	2	-22	-23	-34	-27	-28	19	7,209
2030	701	909	903	722	705	669	446	442	243	20,211
2040	746	1,088	1,059	841	817	764	543	537	305	26,271
2050	286	603	582	469	462	450	336	333	191	23,654

Total 77,824

PEIS (Alternative 4 & 6, high traffic scenario)

	Upper Mississippi River																												
Year	USA	LSA	P1	P2	P3	P4	P5	P5A	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P24	P25	P26	P27	OR*
2010	2	2	3	9	9	9	9	9	9	9	9	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
2020	20	20	21	33	33	42	42	42	70	70	72	73	98	98	114	119	154	154	173	183	193	213	219	241	258	272	272	272	265	265
2030	169	169	173	704	704	760	726	726	803	803	835	837	1033	1037	1145	1184	1462	1455	1548	1595	1648	1764	1792	1862	1920	1972	1973	1995	1966	1965
2040	289	289	297	738	738	878	861	861	994	994	1048	1002	1400	1394	1600	1668	2122	2121	2280	2353	2438	2629	2672	2780	2862	2951	2951	4014	3907	3907
2050	262	262	269	758	758	864	845	845	956	956	994	940	1278	1276	1459	1521	1953	1951	2084	2152	2223	2392	2429	2520	2601	2679	2680	3231	3155	3155

	Illinois Waterway									
Year	ALT*	LGR	PEO	STR	MAR	DRS	BRD	LPT	OBN	UMRS
2010	0	0	0	0	0	0	0	0	0	249
2020	0	26	885	24	24	23	22	23	0	5,127
2030	23	402	351	222	199	174	121	119	30	38,365
2040	1063	1245	1096	709	634	550	403	400	106	61,240
2050	551	666	587	387	350	315	237	236	66	52,845

Total 157,826

* Alton Pool traffic was calculated using the formula (Pool 26 traffic - Pool 25 traffic)

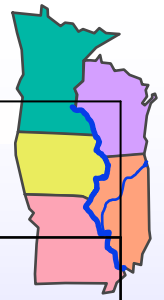
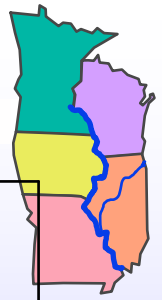


Table 2. Comparison of total traffic forecasts for the years 2010-2050.

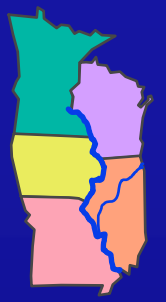
	Low Traffic	High Traffic	PEIS
Total Traffic	549,842 tows	868,515 tows	916,804 tows
W/O Project Traffic	522,534 tows	790,690 tows	758,968 tows
Incremental Increase	27,308 tows	77,825 tows	157,826 tows



Overall Sytemic Mitigation Summary			Initial 2003 and Updated 2006 Cost Estimates
Mitigation Items	**Initial Cost Estimates, 2003 ($1000)**	**CWCCIS Factor**	**Updated Cost Estimates, 2006 ($1000)**
B1. Bank Erosion	$17,564	1.178	$20,690
B2. Backwater & Secondary Channel	$29,391	1.212	$35,622
B3. Plants	$16,530	1.212	$20,034
B4. Fish	$60,802	1.212	$73,692
B5. Environmental Monitoring	$14,293	1.199	$17,137
B6. Historic Properties	$10,590	1.261	$13,354
B7. Site Specific Mitigation	Site Specific Costs shown on Lock Projects' Estimates		
B8. Administration	$18,647	1.199	$22,358
B9. Total Mitigation Cost	**$167,817**		**$202,887**

Dual Purpose Plan …

To seek long-term sustainability of the economic uses and ecological integrity of the Upper Mississippi River System



UPPER MISSISSIPPI RIVER SYSTEM NAVIGATION AND ECOSYSTEM SUSTAINABILITY PROGRAM

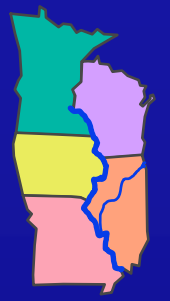
RE-EVALUATION REPORT

REGIONAL ECONOMIC DEVELOPMENT (RED) AND OTHER SOCIAL EFFECTS

BY

JACK CARR
ROCK ISLAND DISTRICT

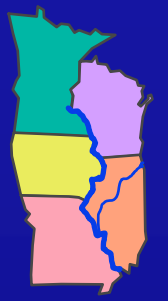
REGIONAL ECONOMIC DEVELOPMENT (RED) IMPACTS



TVA estimated RED impacts with an Economic model by Regional Economic Models Inc. (REMI) of Amherst, MA.

Direct impacts consist of: construction impacts which include spending for labor and for goods and services; and the savings to shippers from improved efficiency of the navigation system.

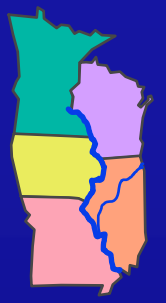
REGIONAL ECONOMIC DEVELOPMENT (RED) IMPACTS



Direct construction activity results in indirect impacts in the local economy; money spent on construction activity, labor, and the purchase of materials generates additional income and employment in a multiplier fashion.

Savings to shippers from improved efficiency of the navigation system is spent and generates additional income and employment in a multiplier fashion.

REGIONAL ECONOMIC DEVELOPMENT (RED) IMPACTS



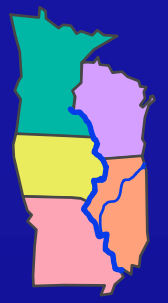
Summary of regional impacts – *generated from total project costs and shipper savings*

GRP	Real Personal Income	Output	Employment	Ratio GRP/Cost
$2,799.11	$2,032.95	$5,209.43	2555	3.38

Summary of regional impacts - *project costs only*

GRP	Real Personal Income	Output	Employment	Ratio GRP/Cost
$2,089.79	$1,469.25	$4,246.29	1954	2.53

ASSESSING THE CAPACITY OF CLASS I RAILROADS IN THE UPPER MISSISSIPPI AND ILLINOIS RIVER BASINS

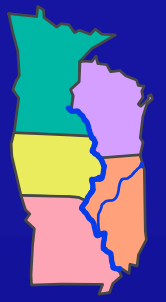


Mark Burton and David Clarke

Center for Transportation Research

June 2007

ASSESSING THE CAPACITY OF CLASS I RAILROADS IN THE UPPER MISSISSIPPI AND ILLINOIS RIVER BASINS

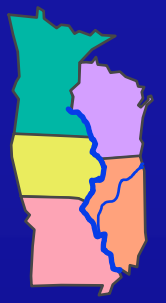


Corps assumed sufficient land-side freight capacity when evaluating potential navigation benefits.

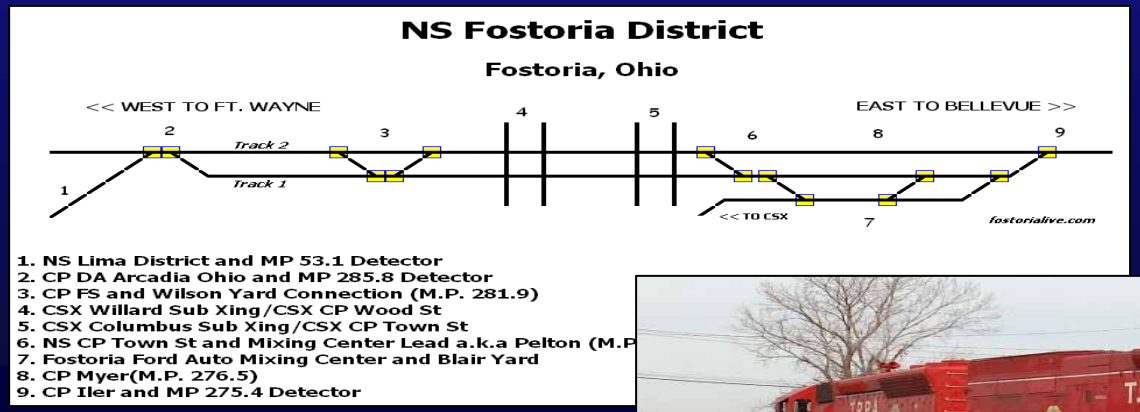
Assuming future alternative modal capacity will be available may lead to substantial errors in public policy.

A closer look at corridor-specific railroad and motor carrier capacities was undertaken.

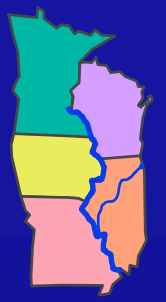
THE CURRENT ANALYSIS



- Union Pacific, Chicago – New Orleans
- BNSF, Eastern Iowa – St Louis
- Canadian National, Chicago – New Orleans
- Norfolk Southern, Chicago – St Louis
- St Louis Terminal (TRRA)

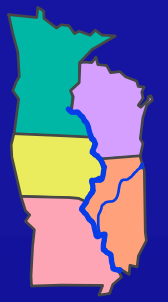


CAPACITY SUMMARY



- Four corridors examined are busy, but not at capacity (50-100 million tons reserve capacity)
- CN capacity most available, most easily expanded
- Study didn’t consider more westerly Gulf routings that reflect additional capacity
- Most easy fixes have been made; additional capacity expansions are likely to be more costly
- Should continue to monitor

WATER-COMPELLED RATES



- Same methodology as 1995 WCR Study
- Same caveats and cautions
- Substantially different results from 1995 WCR Study

WATER COMPELLED RESULTS

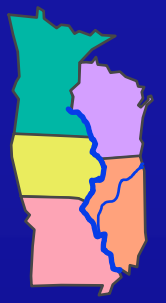
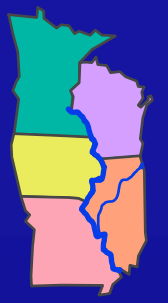


Table 1.

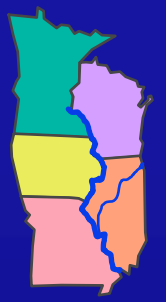
Commodity	*STCC*	*Observed Revenue per Ton-Mile*	*Rate Predicted Without Navigation*	*Per Ton-Mile Rate Difference*	*Affected Tonnage*	*Water-Compelled Rate Impact*
Wheat	1137	0.039471	0.042618	0.003146	21,967,189	54,216,873
Coal	11	0.022696	0.022147	0.000549	66,785,947	24,866,749
Non-Metallic Minerals	14	0.043795	0.043905	0.000110	29,828,671	1,420,497
Lumber and Wood	24	0.049427	0.050802	0.001375	26,823,696	31,431,352
Pulp Paper and Prod	26	0.059729	0.063669	0.003941	22,452,612	61,560,821
Coal and Petrol Prod	29	0.052048	0.053737	0.001689	80,071,679	99,968,392
Primary Metal	33	0.053556	0.057749	0.004193	19,922,160	53,565,649
Fabricated Metal	34	0.068262	0.071829	0.003567	549,148	2,973,260
Scrap Materials	40	0.061297	0.063445	0.002148	12,932,832	13,631,449
TOTAL						**343,635,043**

WATER COMPELLED RESULTS



- Results are about one-third as large as 1995 study
- Class I carriers don’t need the traffic
- More local processing of corn and soybeans
- Loss of short-line connections to the river

OTHER SOCIAL EFFECTS (OSE) ACCOUNT

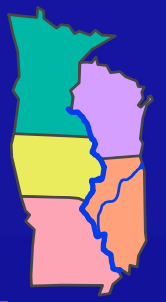


For the Interim Report, OSE examines the improved quality of life that a healthy and sustainable river system offers to the human community.

UMR system is the lifeblood of the Midwest region and central to quality of life.

A healthy, sustainable system provides the goods and services that add to quality of life.

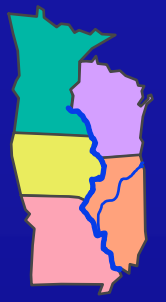
OTHER SOCIAL EFFECTS (OSE) ACCOUNT (Cont'd)



Quality of Life benefits from a healthy, attractive and sustainable river system:

- Recreational opportunities, scenic vistas, other amenities for consumers
- Amenities that generate jobs and income
- Amenities that contribute to community stability and social interaction
- Ecosystem goods and services
- Growth in eco-tourism
- Spiritual, historic, cultural, and artistic resources and values
- Preservation of the system for future generations

EMISSIONS, ACCIDENTS, NOISE, AND VEHICLE DELAY

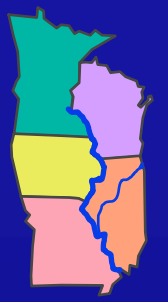


The following information was presented in the Feasibility Study.

This work (Tolliver, 2004) evaluated and quantified impacts of waterway traffic versus rail for the categories of emissions, accidents, noise, and vehicle delay at railroad crossings.

The level of input detail and lack of standardized measurement techniques within the Corps preclude these impacts from being considered in the NED formulation process.

EMISSIONS



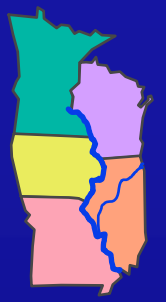
The change in rail and waterway traffic emissions impacts attributable to an alternative can be quantified by comparing the gallons of fuel consumed in waterway and rail transportation for each alternative.

Emission factors per gallon of fuel consumed can be used in developing the estimates.

The emission of air pollutants is directly linked to fuel consumption.

The general conclusion of the analysis is that there is no evidence to suggest that the potential waterway investments would have a significant beneficial effect on annual fuel consumption.

ACCIDENTS

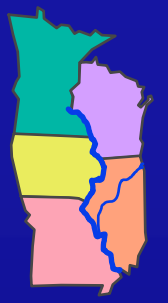


Included in these data are estimates of the differential financial cost of accidents and fatalities resulting from waterway and rail transportation.

A two-step analysis process was followed for both modes: (1) estimate annual accidents, fatalities, and injuries for the incremental traffic; and (2) multiply the annual events by the applicable unit cost per property damage, fatality, or injury.

The projected change (REDUCTION) in accident costs for vehicular traffic is very large.

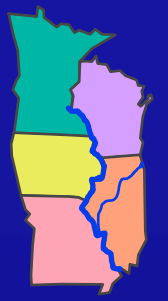
NOISE AND VEHICLE DELAY



The change in rail and waterway traffic noise and other community impacts attributable to each alternative have been evaluated and quantified. Incremental railroad traffic will result in changes in traveler delay at railroad/highway crossings.

A comprehensive analysis of grade crossing delay is beyond the scope of this study. However, several illustrations are presented based on probable routings.

NOISE AND VEHICLE DELAY (Cont'd)



The grade crossing delay and noise analysis procedures use the same database.

Results show moderate reductions in noise levels and vehicle delays.

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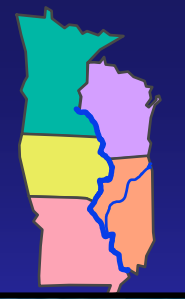
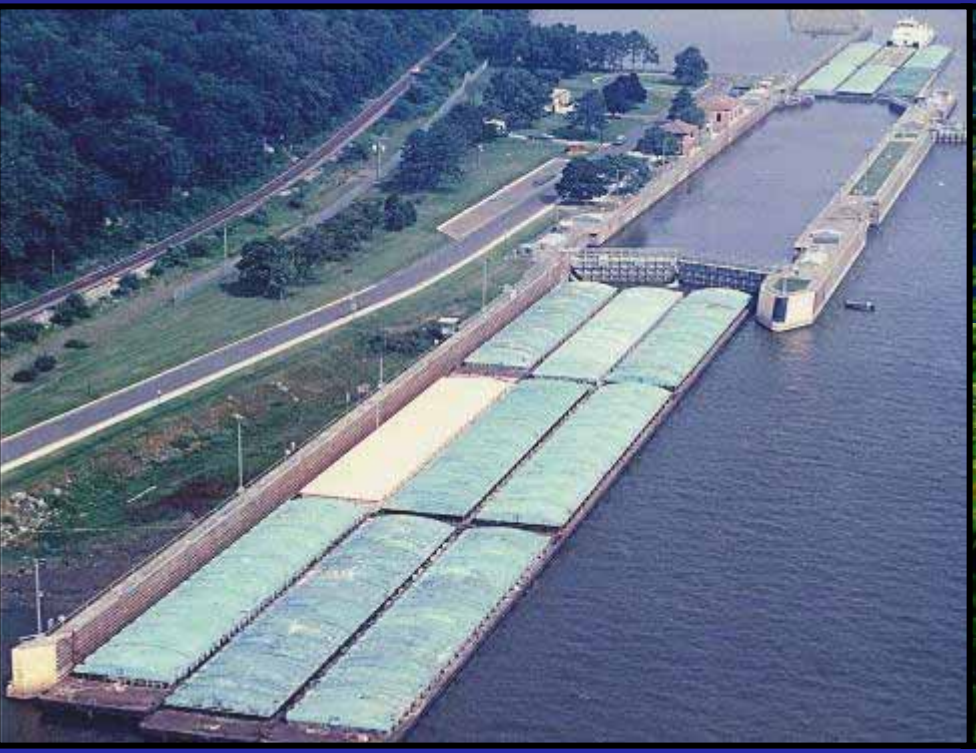
Upper Mississippi River System



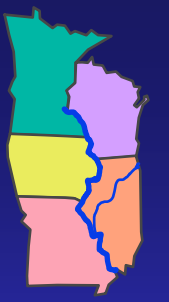


Navigation & Ecosystem Sustainability Program (NESP)

One Team: Relevant, Ready, Responsive and Reliable

US Army Corps of Engineers®

Reevaluation
Risk Framework



Low — Range of Possible Traffic Forecasts — High

Change in Drivers | Reasonable Range Traditional | Increasing Constraints | Policies to Increase Utilization

LTS | HTS | MTS

Flat or Falling Traffic (MIN)

Full System Utilization (MAX)

LTS = Low Traffic Scenario
HTS = High Traffic Scenario
MTS = Multimodal Transportation Scenario

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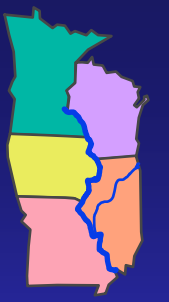
Reevaluation
Considering Risk & Uncertainty



- Seeing RP in greater context
- Evaluating NED under traditional assumptions
- Considering external NED and multimodal
- Considering redundancy benefits
- Considering RED, EQ, and OSE
- Comparing potential consequences with and without

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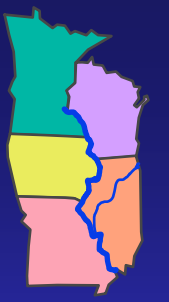
Reevaluation
Preliminary Conclusions



- UMRS is a national symbol
- Public expects sustainable balance
- Investment in transportation needs to increase
- RP meets planning objectives
- RP aligns with national objectives
- Potential gains from implementing RP > risks

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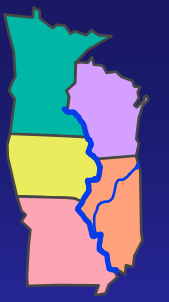
Reevaluation
Preliminary Recommendations



- Endorse dual-purpose RP
- Support additional provisions
- Support efficient funding
- Support coordination & collaboration
- Support innovations
- Support development of multimodal tools

Upper Mississippi River System

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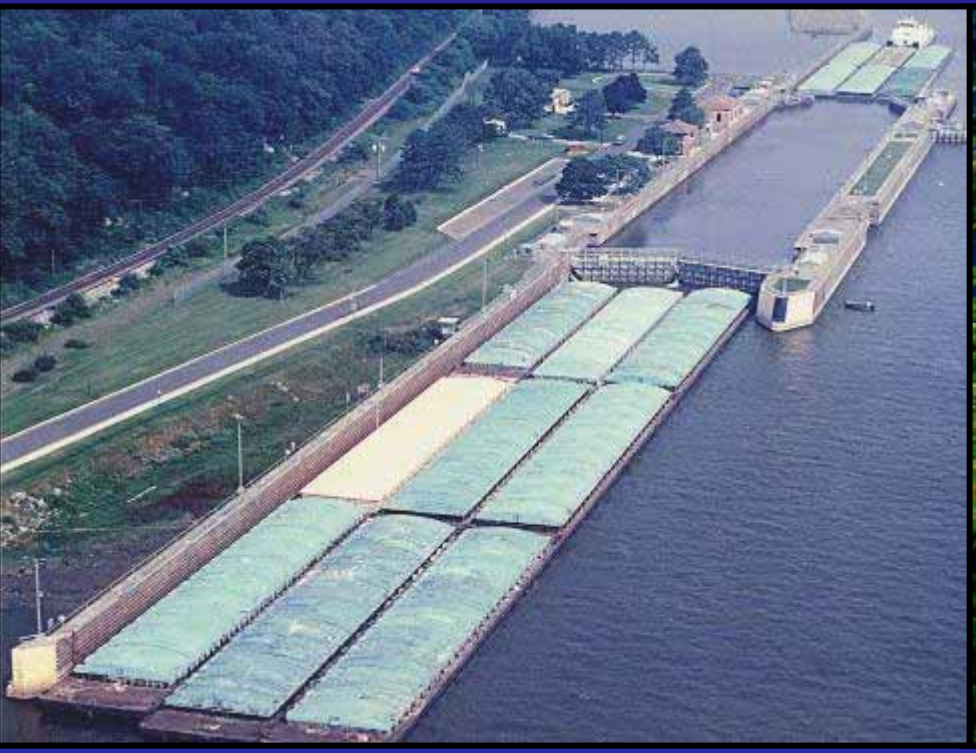

To seek long-term sustainability of the economic uses and ecological integrity of the Upper Mississippi River System

One Team: Relevant, Ready, Responsive and Reliable

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External Peer Review Panel

NESP Navigation Economic Re-evaluation

Center for Expertise for Inland Navigation
Wesley Walker & Rebecca Soileau

Presented to:
NECC-ECC
La Crosse, Wisconsin
22 August 2007

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Review Process

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

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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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Products for Review

- **Third CRA ----Through Feb 17**
  - **Draft Interim Report Outline**
  - **Survey Model Documentation**
  - **× Concept for Non-traditional benefits**
  - **Long-Term Forecasting of Commodity Flows on the Mississippi River; Applications to Grains and World Trade (initial Review)**

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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)

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

3. Corps developed Scenarios for Grain Forecasts;

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Products for Review

CRA4 cont. :

4. Non-Grain Traffic Forecast;

5. Rail Capacity Sow and Study;

6. Draft Interim Report

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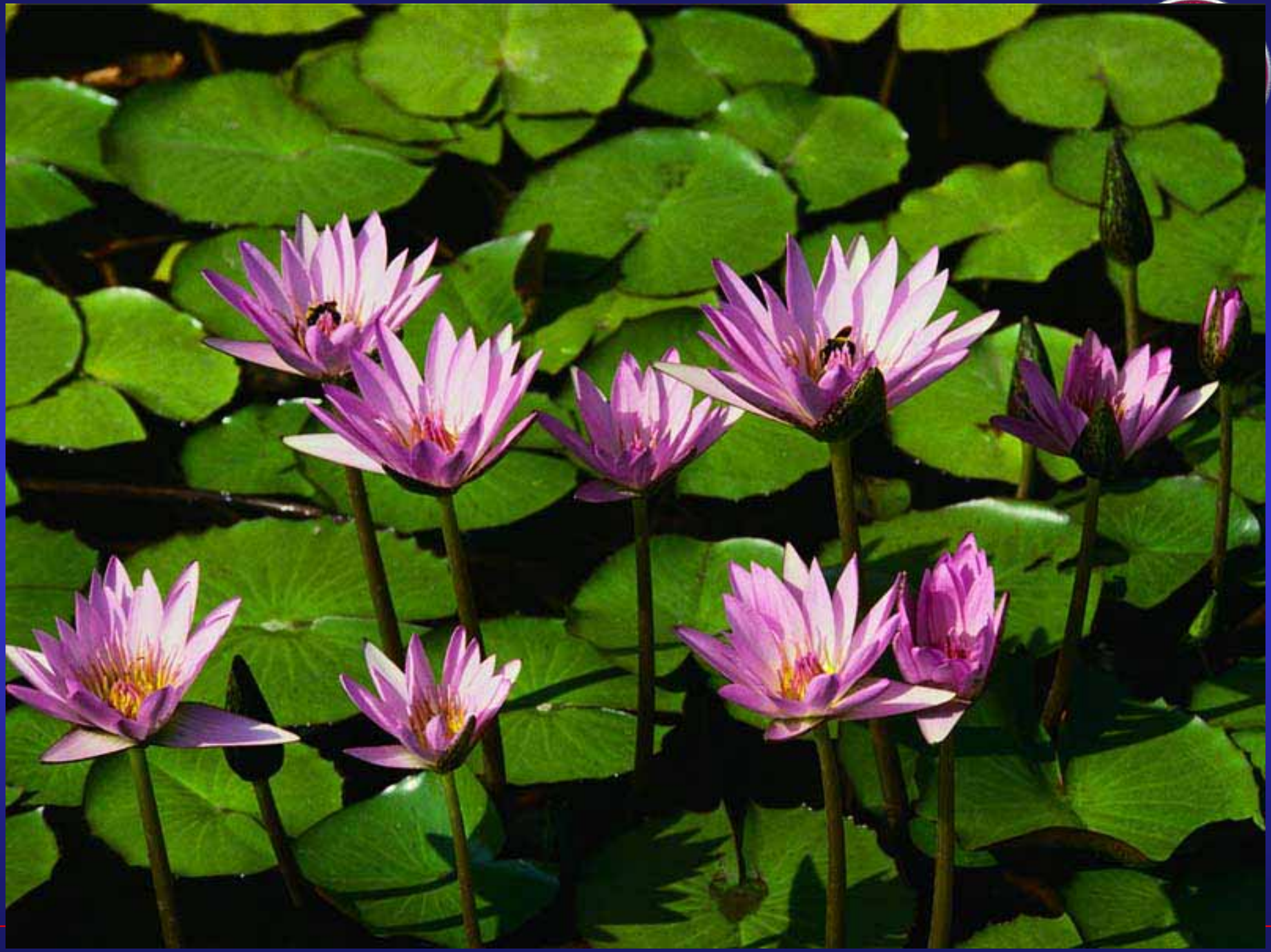
Meeting Schedule

• Introductory Meeting of EPR Panel	Nov 12-13
• Grain Forecasting Workshop	Feb 14-15
• Non-grain and Elasticity	Jun 18-19
• Draft Interim Report	Aug 29-30
• Drafting Executive Summary	Oct/ ??



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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**
- **Rebecca Soileau**

US Army Corps of Engineers

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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Reevaluation PDT

Members

Rich Worthington (HQ)	Vertical Team - HQ
Terry Smith (MVD)	Vertical Team - MVD
Chuck Spitzack (MVR)	Regional PM
Rich Astrack (MVS)	PDT Leader
Scott Whitney (MVR)	Project Manager
Jeff DeZellar (MVP)	Project Manager
Rich Manguno (MVN)	Economics TM
Ken Barr (MVR)	Environmental TM
Jeff Stamper (MVS)	Engineering TM
Jack Carr (MVR)	Economist
Dave Kelly (MVS)	Economist
Jeff McGrath (MVP)	Economist
Mary Hanson (MVR)	Writer - Editor

US Army Corps of Engineers

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 CPXIN

UMRS Navigation and Ecosystem Sustainability Program (NESP)

FY08 Draft Workplan

Presentation To

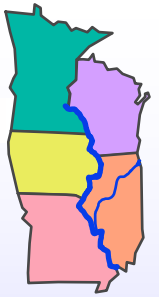
Upper Mississippi River Basin Association

Scott D. Whitney

Asst. Regional Project Manager

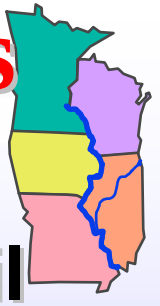
August 22, 2007

FY08 TOPICS



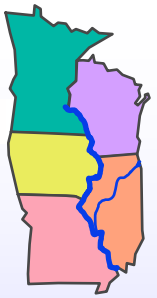
- Authorization and Appropriations
- FY05-07 Expenditures
- First Increment Funding & Planning
- FY08 Approp. Anticipated CG = $2.2 - $12M
- Implementation Strategy & Considerations
- DRAFT $14M Workplan - Components
  - ✓ PGRM = $0.825M
  - ✓ ECON = $1.0M
  - ✓ NAV = $6.088M
  - ✓ ECOS = $6.088M
- FY08 Issues and Concerns

Authorization and Appropriations

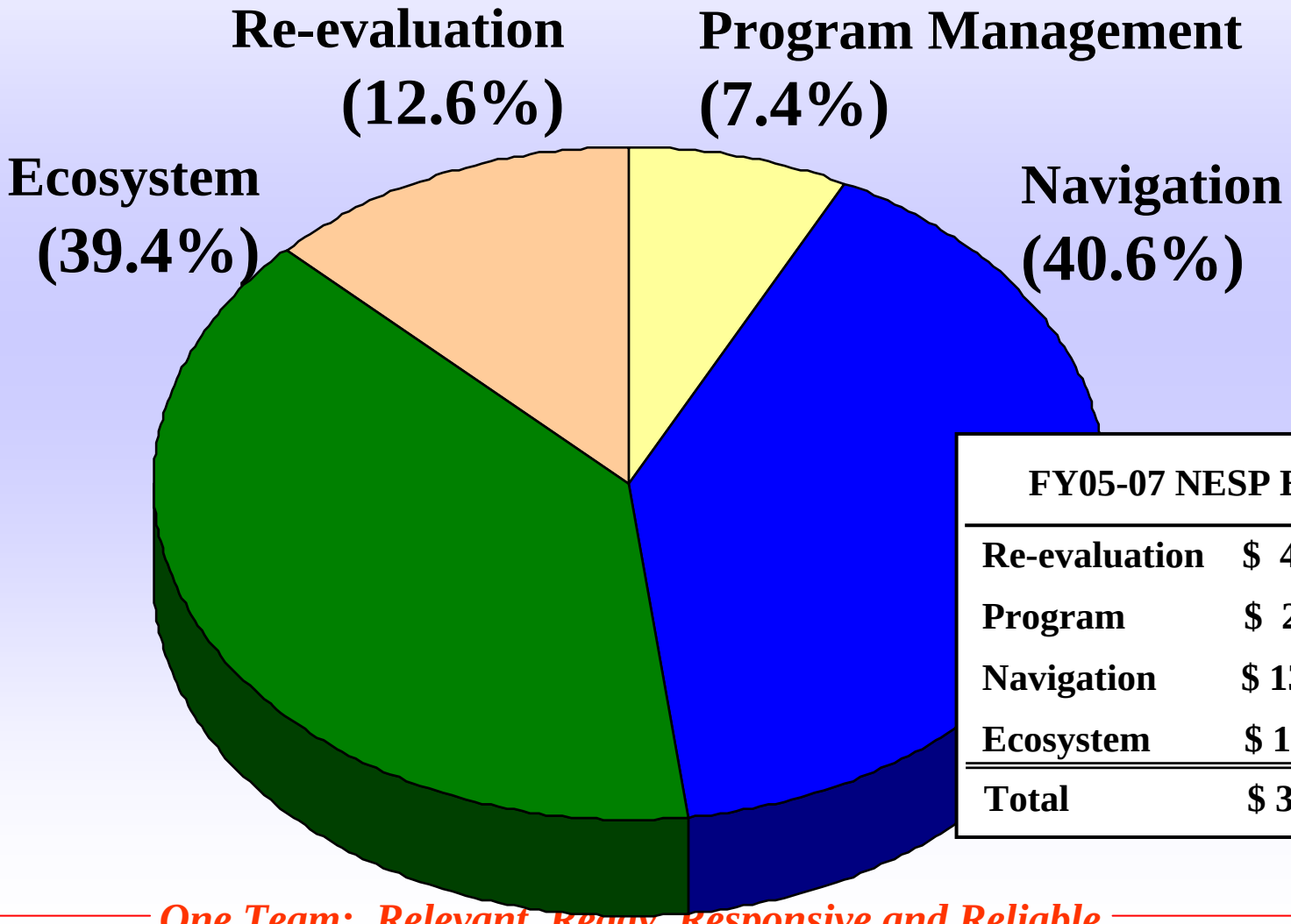


- ASA(CW) - No recommendation to OMB until completion of economic reevaluation
- WRDA – Conference Rpt passed House, pending Senate, & expect Presidential veto.
- FY 2008 Appropriations Bills
  - House – $2.2 million
  - President - $0
  - Senate Markup - $12 million
- Continuing Resolution Agreements
- Uncertainty “Yo-Yo”

FY05-07 NESP Expenditures

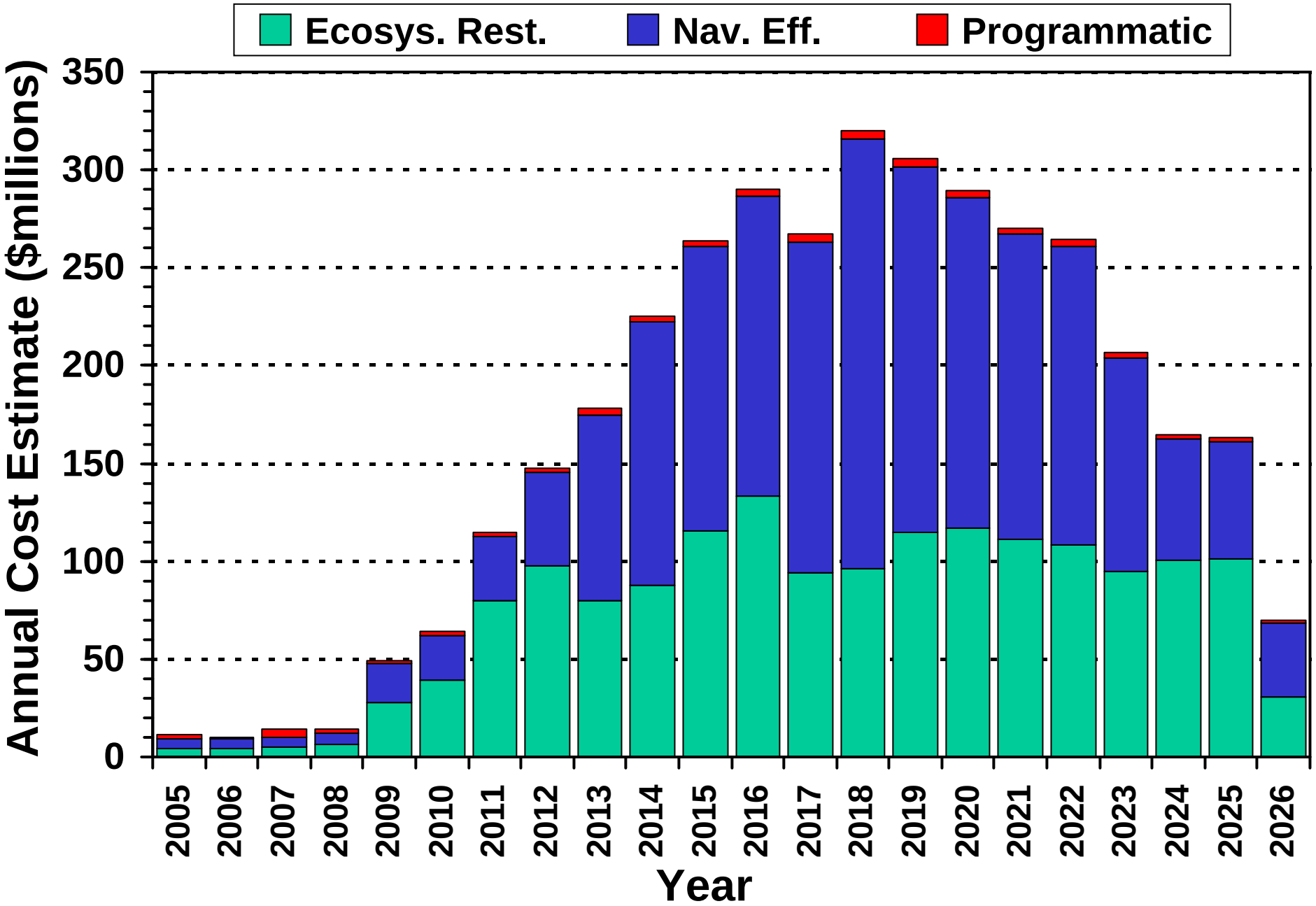


FY05 = $10M; FY06 = $9.9M; FY07 = $14M

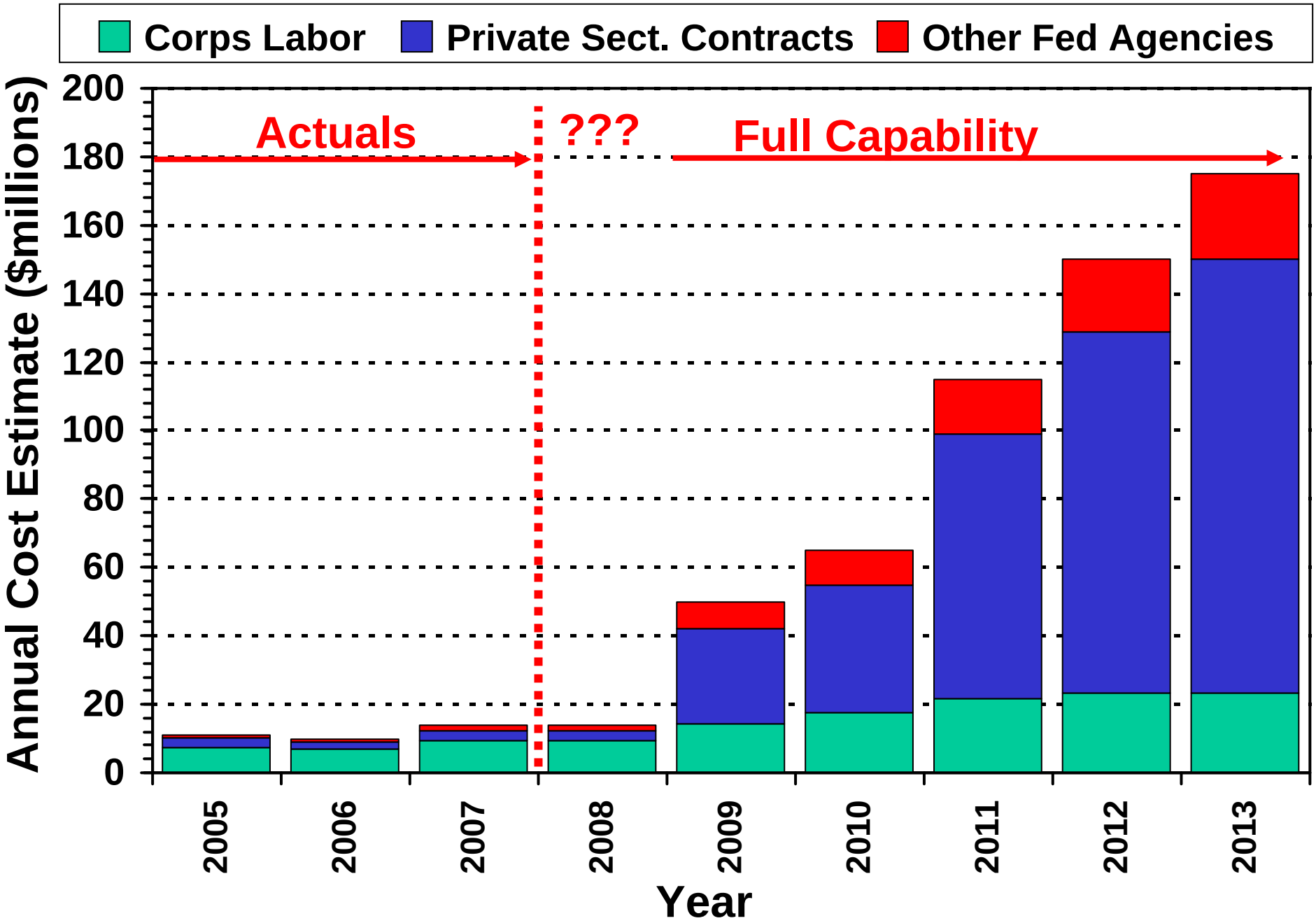


FY05-07 NESP Exp.	
Re-evaluation	$ 4.280M
Program	$ 2.493M
Navigation	$ 13.684M
Ecosystem	$ 13.277M
Total	$ 33.734M

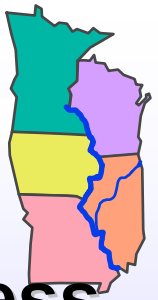
Annual Cost Estimate for NESP 1st Increment



Historic and Expected NESP Budget Allocations

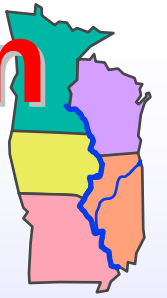


IMPLEMENTATION STRATEGY



- Priorities (1) Econ Re-eval, (2) Const. Readiness, (3) Continued PED, (4) Baseline Monitoring
- Integrate management of the UMRS
- Use a science-based adaptive approach
- Balance implementation and resources
- Empower teams and use PMBP
- Collaborate and partner with stakeholders
- Communicate effectively to all affected entities

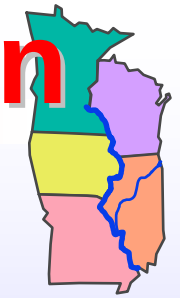
Monitoring & Data Collection



Contractual Acquisition	TOTALS
2005	$2,021,104
2006	$2,068,847
2007	$2,452,454
2005-07	$6,542,404

**An additional $6 million spent preparing and managing these contractual activities or collecting data with Corps employees

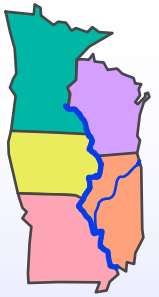
Monitoring & Data Collection



	Aquatic Veg	Terrestrial Veg	Fisheries	Mussels	Water Quality
2005	$143,089	$82,000	$314,749	$162,562	$15,547
2006	$68,815	$9,450	$525,884	$95,139	$45,990
2007	$11,000	$18,970	$576,953	$324,450	$31,936
2005-07	$222,904	$110,420	$1,417,586	$582,151	$93,473

	Sediments	Bathymetry	Topography	Geomorph	Geotech	Hydraulics
2005	$61,312	$32,880	$203,107	$139,553	$340,121	$31,343
2006	$0	$39,079	$0	$35,000	$259,520	$94,949
2007	$16,130	$0	$18,036	$0	$92,774	$7,925
2005-07	$77,442	$71,959	$221,143	$174,553	$692,415	$134,216

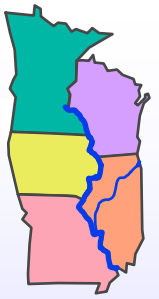
	Archeology	Recreation	Econ Forecasts	Lock Struct Design	Barge Appt Sched
2005	$201,947	$14,500	$0	$89,938	$0
2006	$18,900	$0	$445,500	$415,622	$15,000
2007	$284,029	$0	$391,940	$678,311	$0
2005-07	$504,876	$14,500	$837,440	$1,183,871	$15,000



PROGRAM MANAGEMENT COMPONENT

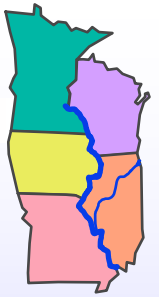
$825K

PROGRAM MANAGEMENT



$825K

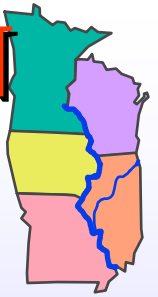
- Program Management ($625K)
- Institutional Arrangements ($25K)
- Public Involvement ($175K)



ECONOMIC RE-EVALUATION

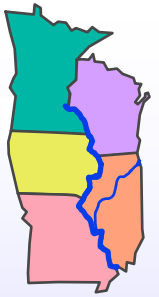
$1.0M

Economic Re-Evaluation



$1.0 M

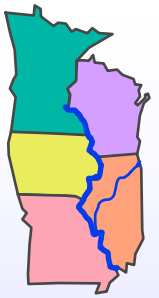
- Economic Re-evaluation
- Interim Report
- External Peer Review & ITR
- Stakeholder & Public Review/Cmt.
- Navigation Adaptive Mgmt.



NAVIGATION EFFICIENCY COMPONENT

$6.088M

NAV First Increment

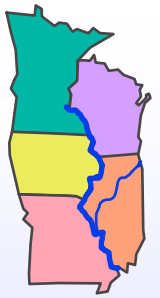


Navigation = $2.21 billion (50/50 Cost Share)

(All Cost estimates, cost indexed to Oct 2006 values)

- **Small scale structural and non-structural measures ($256M)**
  - **Mooring facilities @ Locks 12, 14, 18, 20, 22, 24 and LaGrange**
  - **Switchboats @ Locks 20 through 25**
  - **Develop and test - appointment scheduling system.**
- **New 1200' locks at Locks 20 through 25, LGR, and PEO ($1.95B of which $235M is for mitigation)**
- **Implementation will be through an adaptive approach requiring continued evaluation and reporting to the Administration and Congress.**

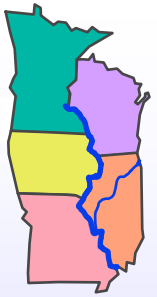
NESP Navigation Efficiency Projects



Navigation Efficiency Projects

- **Small-Scale Improvements**
  - Moorings
  - Switchboats
- **Large-Scale Improvements**
  - New 1200’ Locks
- **Traffic Management**
  - Tradable Permits
  - SMART Locks
  - GPS Tracking
  - Simul. Modeling
- **Systemic Env. Mitigation**
  - Fisheries
  - Mussels
  - Aquatic Plants
  - BW and SC
  - Shoreline Erosion
  - Cultural/Historic

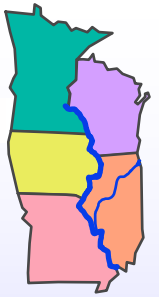
NAVIGATION EFFICIENCY



SYSTEMIC STUDIES
$700 K

- Sys. Environ. Mitigation ($600K)
  - Fisheries
  - Mussels
  - Vegetation
  - Historic Properties
- Navigation Traffic Mgmt ($100K)

NAVIGATION EFFICIENCY

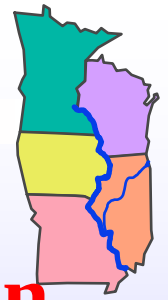


SITE SPECIFIC PROJECTS

$5.388 M

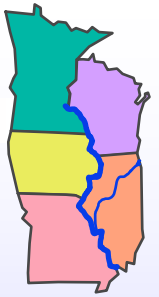
- Mooring Cells and Buoys ($150K)
  - Upstream Cells @ Locks 24 & LGR
  - Downstream Cell @ Lock 14
- Switchboats ($25K)
- New 1200’ Locks ($5.213M)
  - Lock 22
  - Lock 25
  - LaGrange

UMR-IWW Lock Plan



NEW 1200' Locks First Phase = $1.95 Billion
(Oct 2006 price levels)

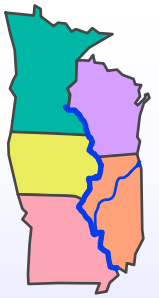
Measures	PED Start	Const. Start	Complete	Cost ($ Millions)
NEW UMR LOCKS				
Lock 22	2005	2010	2018	232.3
Lock 25	2005	2010	2019	324.4
Lock 24	2010	2014	2022	309.9
Lock 21	2010	2014	2022	322.5
Lock 20	2013	2017	2025	221.4
NEW IWW LOCKS				
LaGrange	2005	2012	2022	261.3
Peoria	2015	2018	2027	262.6



ECOSYSTEM RESTORATION COMPONENT

$6.088M

ECOS First Increment

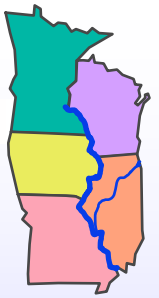


Ecosystem = $1.717 billion (93/7 Cost Share)

(All Cost estimates, cost indexed to Oct 2006 values)

- **Fish Passage @ Dams 4, 8, 22, and 26 ($245M)**
- **Changes in Water Level Control @ Dams 25 and 16 ($48M)**
- **Adaptive Implementation of 225 small projects of less than $25 million each ($1.097B)**
- **35,000 Acres of Floodplain Restoration ($325M)**
- **Implementation will be through an adaptive approach that allots approximately $160M of the total for a Science Panel, system level learning and monitoring, and restoration project bio-response monitoring**

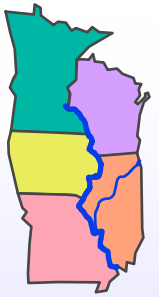
NESP Ecosystem Restoration Projects



Ecosystem Restoration Projects

- **Systemic Projects**
  - UMRS Restoration Plan
  - Adaptive Mgmt
  - Cultural Stewardship
  - Barge Fleeting
- **Navigation Structures**
  - Fish Passage
  - Water Level Mgmt
  - Wing Dam/Dike Alt.
  - Dam Pt. Control
  - Dam Embank. Alt.
- **Habitat Improvements**
  - Islands
  - Backwaters
  - Side Channels
  - Floodplain Rest.
  - Forest Mgmt.

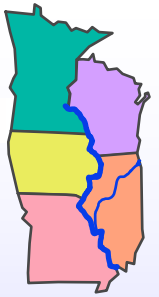
ECOSYSTEM RESTORATION



SYSTEMIC STUDIES
$2.31 M

- Ecosystem Adapt. Mgmt. ($1.2M)
  - FY09 Rpt to Congress
  - Post Project Monitoring/Lessons Learned
  - Science Panel
- Ecosystem reach planning ($400K)
  - Reach 5, 18, & Harlow
- Cultural Stewardship ($300K)
- Forest Management ($300K)
- Fleeting Plan ($110K)

ECOSYSTEM RESTORATION

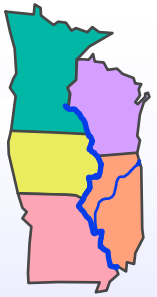


SITE SPECIFIC PROJECTS

$2.310 M

- **Fish Passage ($1.5M)**
  - Lock and Dam 22
  - Mel Price Lock and Dam
- **Forest Management ($300K)**
  - Reno Bottoms, MN (MNDNR)
  - Emiquon West, IL (USFWS)
- **Water Level Management ($592K)**
  - Pools 5, 9, & 18
  - New Starts
- **Parked – Isl. Building, Fldpl. Rest.**

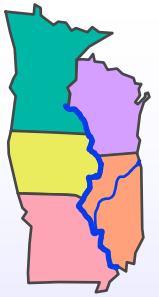
ECOSYSTEM RESTORATION



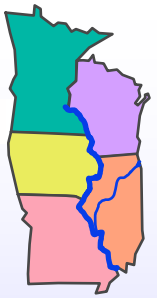
SITE SPECIFIC PROJECTS
$1.685 M

- **Backwater Restoration ($250K)**
  - Upper Peoria Pool, IWW
- **Side Channel Restoration ($400K)**
  - Scheniman Chute
  - Buffalo Island
- **Wing Dam/Dike Alteration ($285K)**
  - Pool 2
  - Herculaneum
- **Shoreline Protection ($250K)**
- **Dam Point Control - LD 25 ($300K)**
- **Embankment Lowering - LD 8 ($200K)**

PRIMARY ISSUES AND CONCERNS FY08



- ✓ **Economic Re-evaluation**
- ✓ **Authorization & Appropriations**
- ✓ **IWWTF Balance & Scenarios**
- ✓ **First Increment Plans**
- ✓ **Implementation Schedule**
- ✓ **Compatibility and Comparable Progress**

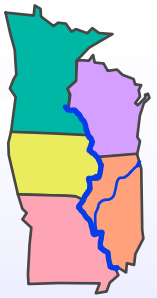


INTERDEPENDENCE

"Today, the mission of one institution can be accomplished only by recognizing that it lives in an interdependent world with conflicts and overlapping interests"

Jacqueline Grennan Wexler

UMRS Navigation & Ecosystem Sustainability Program (NESP)



Points of Contact

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Ph. 651-290-5307

E-mail: charles.p.spitzack@usace.army.mil

Scott Whitney, Asst. Regional Program Manager

Ph. 309-794-5386

E-mail: scott.d.whitney@usace.army.mil

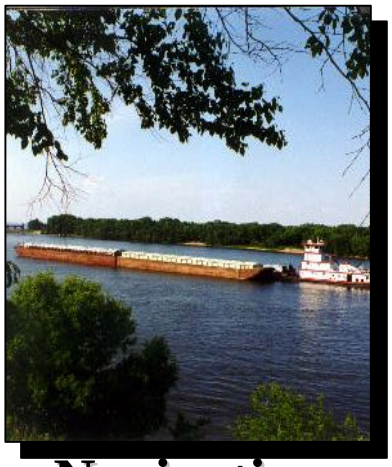
UMRS NESP Website

http://www2.mvr.usace.army.mil/nesp/

UPPER MISSISSIPPI RIVER SYSTEM

NAVIGATION AND ECOSYSTEM SUSTAINABILITY PROGRAM (NESP)

FY08 DRAFT WORKPLAN

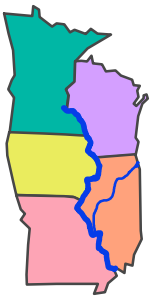


Navigation Efficiency

Ecosystem Restoration

"To seek long-term sustainability of the economic uses and ecological integrity of the Upper Mississippi River System"

AUGUST 14, 2007



FY08 NESP PROJECTS AND ASSOCIATED PMs and DPMs

Last Updated: 8-14-07

Projects Activities	Lead District	Project Manager (Team Leader)	District Program Manager
PROGRAMMATIC PROJECTS			
A. Program Management	MVR	Whitney, Scott	Whitney, Scott
B. Institutional Arrangements (PED)	MVP	Soileau, Rebecca	DeZellar, Jeff
C. Systemic Public Involvement	MVP	Bluhm, Kevin	DeZellar, Jeff
ECONOMIC RE-EVALUATION			
D. Navigation Adaptive Management	MVS	Astrack, Rich	Astrack, Rich
NAVIGATION EFFICIENCY PROJECTS			
E. Systemic Env. Mitigation	MVR	Cornish, Mark	Whitney, Scott
F. Navigation Appointment Scheduling	TBD	Gordon, David	Astrack, Rich
G1. L&D 14 Mooring Cell	MVR	Fleischman, Jon	Whitney, Scott
G2. L&D 24 Mooring Cell	MVS	Moeller, Bill	Astrack, Rich
G3. L&D LGR Mooring Cell	MVR	Jon Fleischman	Whitney, Scott
H. Switchboat	MVS	Gordon, David	Astrack, Rich
I1. Lock 22	MVR	Tarpey, Mike	Whitney, Scott
I2. Lock 25	MVS	Hobbs, Steve	Astrack, Rich
I3. Lock La Grange	MVR	Hunemuller, Toby	Whitney, Scott
ECOSYSTEM RESTORATION PROJECTS			
J. UMRS Ecosystem Rest. Plan	MVR	Theiling, Charles	Whitney, Scott
K. Ecosystem Adaptive Management	MVR	Barr, Ken	Whitney, Scott
L. System Cultural Stewardship	MVR	Ross, Jim	Whitney, Scott
M1. Forest Management - Reno Bottoms, MN	MVP	Urich, Randy	DeZellar, Jeff
M2. Forest Management - Emiquon West, IL	MVR	Moore, Amy	Whitney, Scott
N. Fleeting Plan	MVR	Bollman, Dorene	Whitney, Scott
O1. Island Building - Pool 11	MVR	Nickel, Rick	Whitney, Scott
O2. Island Building - Pool 18	MVR	Theiling, Charles	Whitney, Scott
P1. Fish Passage - L&D 26	MVS	Atchley, Tamara	Astrack, Rich
P2. Fish Passage - L&D 22	MVR	Cornish, Mark	Whitney, Scott
Q1. Floodplain Restoration - Emiquon, IL	MVR	Thompson, Brad	Whitney, Scott
Q2. Floodplain Restoration - Root River, MN	MVP	Petersen, Jon	DeZellar, Jeff
Q3. Floodplain Restoration - Pierce County, WI	MVP	Petersen, Jon	DeZellar, Jeff
R1. Pool Water Level Management - Pool 5	MVP	DeZellar, Jeff	DeZellar, Jeff
R2 Pool Water Level Management - Pool 9	MVP	Jutilla, Scott	DeZellar, Jeff
R3. Pool Water Level Management - Pool 18	MVR	Landwehr, Kevin	Whitney, Scott
S. Backwater Restoration - IWW Peoria Reach	MVR	Plumley, Marshall	Whitney, Scott
U1. Side Channel Restoration - Buffalo Island	MVS	Johnson, Brian	Astrack, Rich
U2. Side Channel Restoration - Scheniman Chute	MVS	Markert, Brian	Astrack, Rich
V1. Wing Dam/Dike Alteration - Herculaneum	MVS	Lamm, Dawn	Astrack, Rich
V2. Wing Dam/Dike Alteration - Pool 2	MVP	Stefanik, Elliot	DeZellar, Jeff
W. Island Shoreline Protection	MVR	Kirkeeng, Thomas	Whitney, Scott
X. Dam Point Control - L&D 25	MVS	Kniep, Michelle	Astrack, Rich
Y1. Dam Embankment Lowering - L&D 8	MVP	Stefanik, Elliot	DeZellar, Jeff
Y2. Dam Embankment Lowering - L&D 3	MVP	Sully, Tom	DeZellar, Jeff
Z. Reduce Water Level Fluctuation - IWW	MVR	Landwehr, Kevin	Whitney, Scott

NESP DRAFT FY2008 WORKPLAN - $14M

LAST UPDATE 8-15-07

Projects Activities	2005 EXP Actual	2006 EXP Actual	2007** EXP Scheduled	2008 - GI PED ONLY $14M	LEAD
PROGRAMMATIC PROJECTS					
A. Program Management	$625,957.77	$496,837.36	$500,000.00	$625,000.00	MVR
B. Institutional Arrangements (PED)	$238,221.18	$60,981.02	$25,000.00	$25,000.00	MVP
C. Systemic Public Involvement	$256,463.83	$106,211.00	$235,000.00	$175,000.00	MVP
SUBTOTALS	$1,120,642.78	$664,029.38	$760,000.00	$825,000.00	
ECONOMIC RE-EVALUATION					
D. Navigation Adaptive Management	$415,946.13	$618,559.85	$3,000,000.00	$1,000,000.00	MVS
SUBTOTALS	$415,946.13	$618,559.85	$3,000,000.00	$1,000,000.00	
NAVIGATION EFFICIENCY PROJECTS					
E. Systemic Env. Mitigation	$343,101.25	$283,764.71	$375,000.00	$600,000.00	MVR
F. Traffic Management Concepts	$40,393.99	$34,191.11	$50,000.00	$100,000.00	MVR
G. Mooring Cells and Buoys	$170,361.82	$62,350.12	$270,000.00	$150,000.00	
G1. L&D 14			$70,000.00	$25,000.00	MVR
G2. L&D 24			$35,000.00	$100,000.00	MVS
G3. L&D LaGrange			$165,000.00	$25,000.00	MVR
H. Switchboat	$88,599.04	$34,503.17	$80,000.00	$25,000.00	MVS
I. NEW 1200' Locks	$3,838,033.46	$3,626,779.15	$4,235,000.00	$5,213,000.00	
I1. Lock 22	$1,868,004.43	$1,693,614.92	$1,805,000.00	$2,157,000.00	MVR
I2. Lock 25	$1,726,537.14	$1,643,478.98	$2,000,000.00	$2,676,000.00	MVS
I3. Lock La Grange	$243,491.89	$289,685.25	$430,000.00	$380,000.00	MVR
SUBTOTALS	$4,480,489.56	$4,041,588.26	$5,010,000.00	$6,088,000.00	
ECOSYSTEM RESTORATION PROJECTS					
J. UMRS Ecosystem Rest. Plan	$330,638.70	$363,739.27	$525,000.00	$400,000.00	MVR
K. Ecosystem Adaptive Management	$1,083,208.44	$966,816.12	$995,000.00	$1,200,000.00	MVR
L. System Cultural Stewardship	$434,456.93	$150,776.05	$250,000.00	$300,000.00	MVR
M. Forest Management	$211,048.07	$194,124.95	$230,000.00	$300,000.00	
M1. Forest Mgmt. - Reno Bottoms	$197,096.74	$132,782.40	$130,000.00	$200,000.00	MVP
M2. Forest Mgmt. - Emiquon West	$13,951.33	$61,342.55	$100,000.00	$100,000.00	MVR
N. Fleeting Plan	$80,380.34	$67,748.40	$95,000.00	$110,000.00	MVR
P. Fish Passage	$444,642.23	$826,545.06	$1,050,000.00	$1,500,000.00	
P1. Fish Passage - L&D 26	$134,182.60	$196,727.99	$450,000.00	$600,000.00	MVS
P2. Fish Passage - L&D 22	$310,459.63	$629,817.07	$600,000.00	$900,000.00	MVR
R. Pool Water Level Management	$450,133.26	$428,930.02	$705,000.00	$592,000.00	
R1. Pool 5	$230,186.79	$161,988.15	$160,000.00	$100,000.00	MVP
R2. Pool 9	$87,383.43	$75,957.04	$40,000.00	$50,000.00	MVP
R3. Pool 18	$132,563.04	$190,984.83	$505,000.00	$200,000.00	MVR
R4. New Start TBD (Pool 3?)	$0.00	$0.00	$0.00	$242,000.00	MVP
S. Backwater Restoration - IWW Peoria Reach	$50,022.09	$75,335.19	$225,000.00	$250,000.00	MVR
U. Side Channel Restoration -	$212,780.86	$132,753.94	$170,000.00	$400,000.00	
U1. Buffalo Chute	$212,437.00	$132,753.94	$150,000.00	$380,000.00	MVS
U2. Scheniman Chute	$343.86	$0.00	$20,000.00	$20,000.00	MVS
V. Wing Dam/Dike Alteration	$280,494.40	$176,612.41	$285,000.00	$285,000.00	
V1. Herculaneum	$185,085.61	$173,949.92	$250,000.00	$265,000.00	MVS
V2. Pool 2	$95,408.79	$2,662.49	$35,000.00	$20,000.00	MVP
W. Island Shoreline Protection	$74,083.26	$60,107.04	$150,000.00	$250,000.00	MVR
X. Dam Point Control - L&D 25	$223,383.32	$179,880.70	$310,000.00	$300,000.00	MVS
Y. Dam Embankment Lowering	$109,728.32	$122,667.76	$180,000.00	$200,000.00	
Y1. L&D 8	$109,728.32	$122,667.76	$150,000.00	$200,000.00	MVP
SUBTOTALS	$4,290,224.05	$3,856,484.67	$5,180,000.00	$6,087,000.00	
TOTALS	$10,307,302.52	$9,180,662.16	$13,950,000.00	$14,000,000.00	

DRAFT FY08 WORKPLAN for UMRS Navigation and Ecosystem Sustainability Program (NESP)

$14 Million GI Appropriation

last update 08/15/2007

	NESP Project Identifier & Name	PMP Scope, Activities & Scheduled Completion Dates	Primary FY08 Tasks and Products (by quarter)	FY08 Budget Allocations
A.	**Program Management**	FY 2006 program management activities. FY07	Updating PgMP, FY08 Workplan, Continued PED Implementation, Fact Sheets, Communication and Coordination, Program and Project Financial Tracking and Performance, Project Scheduling, Outreach, Presentations etc…. Produce an initial FWS/COE design for their roles in developing the collaborative environment for planning and design of the first Increment Plan and ongoing adaptive management through a workshop.	**$625,000**
B.	**Institutional Arrangements**	INSAR Development and implementation deferred until after Authorization and Implementation Guidance received.	Minimal exploratory and coordination efforts within COE and with USFWS will be pursued under Program Management project.	**$25,000**
C.	**Systemic Public Involvement**	Fast Start Initatives- Defined Fast Start Plan Implementation Nov 07 Feb 08 May 08 Project newsletter Oct 08 Oct 08 Project Support - PI/comm. Communications Network	QTR 1: Newsletter - Economic Reevalaution 14 Dec 07 QTR 2: Public Review and Meetings Jan-Feb 08 Continued web site support 15 Mar 08 QTR3: Program newsletter 30 Apr 08 QTR 4: Project Support/ Comm network 1 Sep 08	**$175,000**
D.	**Navigation Adaptive Management**	Interim Report for public review Jan 08 Public meetings Feb 08 Public review complete Feb 08 Interim Report complete Mar 08 Nav economic adaptive anal New moorings Jan 08 Single lock analysis Jan 08	QTR1: Continued Review and Refinement of DRAFT Interim Report - Complete EPR and ITR (Oct) - Corps Review and Comment (Aug-Nov) - Stakeholder Review and Comment (Aug-Nov) Newsletter (Dec 07) QTR2: Begin Public Review of Document (Jan) Public Meetings (Feb) Submit FINAL Interim Report (Mar)	**$1,000,000**
E.	**Systemic Environmental Mitigation**	Project Management Plan 1st qtr Fisheries (field sampling) 1st qtr Submersed Aquatic Vegetation 3-4 qtr Review & Finalize IWW HABS-HAER documentation 2nd qtr Backwater/secondary channel monitoring 3-4 qtr	QTR 1: Revise Project Management Plan Fall fish trawling field sampling (continuation of FY07) In-House Review IWW HABS-HAER report Initiate Programmatic NEPA document for Large Woody Debis Anchors Develop SOW for Pre-Construction monitoring of backwater/secondary channel mitigation areas QTR 2: ITR IWW HABS-HAER report Revise SOW and award Submersed Aquatic Vegetation (SAV) Contract QTR 3: SAV field sampling Pre-Construction monitoring of backwater/secondary channel mitigation areas QTR 4: SAV field sampling Pre-Construction monitoring of backwater/secondary channel mitigation areas	**$600,000**
F.	**Navigation Traffic Management Plan Development and Testing**	Assign New Team Leader Scoping Meeting Establish Plan of Action and PMP	TBD based on Scoping Meeting to be held early in First Quarter of FY08	**$100,000**

NESP Project Identifier & Name		PMP Scope, Activities & Scheduled Completion Dates		Primary FY08 Tasks and Products (by quarter)	FY08 Budget Allocations
G1.	**Lock 14 Mooring Cell**	Prepare P&S for BCOE Kickoff & Conduct BCOE Revise & Update P&S CT prepare to solicit		QTR 1: Complete Plans and Specs (P&S) QTR 2: Conduct BCOE QTR 2: Prepare for Construction Solicitation	**$25,000**
G2.	**Lock 24 Mooring Cell**	Finalize Marker Buoy Survey / Location Update DDR with Marker Buoy Survey Initial Technical Review Meeting Obtain Boring and Surveys (if required) DTR Submittal Submit Right of Way Drawings (if required) DTR Meeting Envir Surveys (Mussel Survey) Draft EA Complete EA Public Review	Sep-07 Oct-07 Nov-07 Dec-07 Mar-08 Mar-08 Mar-08 Mar-08 Apr-08 May-08 Jul-08 Jul-08 Jul-08 Sep-08	QTR 1: Identify need & obtain boring, surveys and real estate ROW QTR: 2 Complete P&S to a DTR level Complete Envir Mussel Bed Survey QTR 3: Complete draft EA Complete EA Public Review QTR 4: Complete P&S to a FTR/BCOE/ITR level	**$100,000**
G3.	**Lock LaGrange Mooring Cell**	Prepare P&S for BCOE Kickoff & Conduct BCOE Revise & Update P&S CT prepare to solicit		QTR 1: Complete Plans and Specs (P&S) QTR 2: Conduct BCOE QTR 2: Prepare for Construction Solicitation	**$25,000**
H.	**Switchboat**	Perf. Monitoring Plan Complete DDR Complete Cost Estimates Develop Prelim. Contract Docs Contract Doc. - Phase 1 Solicit for SWB Contractors Impl. SWB Operations - P1 Begin Monitoring SWB	Sept 07 Dec 07 Sept 08 Dec 09 Jan 09 Apr 09 Apr 09 Apr 09	QTR 1: Approve Updated PMP Initiate ITR Process on DDR QTR 2: Finalize DDR QTR 3: No Activity Scheduled QTR 4: Develop Contract Documents Suitable for FY09 BCOE	**$25,000**
I1.	**Lock 22**	initiate PED EA draft EA public review FONSI signing Prepare Draft DDR DDR - ITR DDR final Approval	Feb 05 Sep 07 Feb 08 Mar 08 Jun 08 Aug 08 Oct 08 Jan 09	QTR1 Structures-Lock Length Investigation & Report Structures - Modifications to existing structure Structures/Construction - In-Progress Review Typ Monolith Concept Geotech - Seepage Analysis Continued Geotech/Materials - Existing Concrete Assessment (65%) Hydraulic – F/E Physical Model Testing Hydraulic – F/E Numeric Model Testing Hydraulic - Nav Physical Model - Pool Testing Continued Hydraulic - Nav Numeric model - Pool Testing Continued NEPA - Environmental Assessment documentation & FONSI QTR2 Structures - Typical Monolith and Floor Struts Structures-BIM/CADD for Monolith w/o culvert Materials - Study Report Geotech - Pile Driving Analysis & Pile Load Test SOW Hydraulic - Ice & Debris Study Civil - Civil/Site Layout & Design (50%) Real Estate – Initiate RE Supplement Plan QTR3 Structures-Lower Valve Monoliths + BIM/CADD Structures-Riverwall Transistional Monolith + BIM/CADD Geotech - Lock floor/dewatering report	**$2,157,000**

NESP Project Identifier & Name		PMP Scope, Activities & Scheduled Completion Dates		Primary FY08 Tasks and Products (by quarter)	FY08 Budget Allocations
				Geotech - Lock floor/dewatering report Geotech-Regional floor/dewatering report approval Hydraulic - DDR Hydrulic appendix report Construction - Constructbility Study & Draft Schedule Cost - Initiate M2 cost estimate process(50%) Initail DDR Document Development (50%)	
I2.	**Lock 25**	initiate PED EA draft EA public review FONSI signing Prepare Draft DDR DDR - ITR DDR final Approval	Feb 05 Sep 07 Feb 08 Mar 08 Jun 08 Aug 08 Oct 08 Jan 09	QTR1 Structures-Lock Length Investigation & Report Structures - Modifications to existing structure Structures/Construction - In-Progress Review Typ Monolith Concept Geotech - Seepage Analysis Continued Geotech/Materials - Existing Concrete Assessment (65%) Hydraulic – F/E Physical Model Testing Hydraulic – F/E Numeric Model Testing Hydraulic - Nav Physical Model - Pool Testing Continued Hydraulic - Nav Numeric model - Pool Testing Continued NEPA - Environmental Assessment documentation & FONSI QTR2 Structures - Typical Monolith and Floor Struts Structures-BIM/CADD for Monolith w/o culvert Materials - Study Report Geotech - Pile Driving Analysis & Pile Load Test SOW Hydraulic - Ice & Debris Study Civil - Civil/Site Layout & Design (50%) Real Estate – Initiate RE Supplement Plan QTR3 Structures-Lower Valve Monoliths + BIM/CADD Structures-Riverwall Transistional Monolith + BIM/CADD Geotech - Lock floor/dewatering report Geotech-Regional floor/dewatering report approval Hydraulic - DDR Hydrulic appendix report Construction - Constructbility Study & Draft Schedule Cost - Initiate M2 cost estimate process(50%) Initial DDR Document Development (50%)	**$2,676,000**

NESP Project Identifier & Name		PMP Scope, Activities & Scheduled Completion Dates	Primary FY08 Tasks and Products (by quarter)	FY08 Budget Allocations
I3.	**Lock LaGrange**		QTR 1: - Project Management - Lock Alignment Alternatives - Numeric Modeling (floodplain analysis, sediment approach conditions) - Public Involvement (Website) - Renew ROE - Biological & Cultural Resource Coordination - ERDC Physical Model Construction - Sediment Modeling QTR 2: - Project Management - Continue Numeric Modeling - Limited work on Real Estate Plan - ERDC Physical Model Construction - Sediment Modeling QTR 3: - Project Management - Continue Numeric Modeling QTR 4: - Project Management	**$380,000**
J.	**UMRS Ecosystem Restoration and Management Plan**	Reach Planning all year Reference Condition Analysis Mussel Modeling	QTR 1: Conduct geomorphic reach-scale planning; Reference condition digitizing, modeling, and analysis QTR 2: Conduct geomorphic reach-scale planning; Reference condition digitizing, modeling, and analysis; Mussel modeling QTR 3: Conduct geomorphic reach-scale planning; Reference condition digitizing, modeling, and analysis QTR 4: Conduct geomorphic reach-scale planning; Reference condition digitizing, modeling, and analysis	**$400,000**
K.	**Ecosystem Adaptive Management -** **Ka. Administration**	Management activities in support of Ecosystem Adaptive Management component; $340K	Preparation for and participation with NECC, Resource Management Teams, stakeholders Tracking of financial execution, reporting on activities; Ecosystem Restoration Program Management; Develoop Partner Framework for 1st Incremental Plan	**$1,200,000**
	Ecosystem Adaptive Management - **Kb. Monitoring and Modelling**	Develop and test adaptive management options for ongoing system/project monitoring, modeling, and evaluation; fact sheet for project selection $120K	work with partners to establish adaptive management framework; prepare fact sheets for project evaluation and selection, and ranking; evaluate projects; rank projects, select projects	
	Ecosystem Adaptive Management - **Kc. Science Panel**	Continue interaction with PDTs; provide input to information management plan; continue design and test adaptive management approach for Pool planning; $740K	charter panel; finish modeling workshops; propose reference conditions; initiate work on selection of endpoints for report card(s); develoop goods and services and benefits calculation method; Develop geopmorphic reach objectives; work with PDTs	

NESP Project Identifier & Name		PMP Scope, Activities & Scheduled Completion Dates		Primary FY08 Tasks and Products (by quarter)	FY08 Budget Allocations
L.	**System Cultural Stewardship**	Update PMP Completion of MVR EAs Completion of Draft MVP EA Pool 26 Survey Report (MVS) Phase II Testing Rpt (MVP)	Feb 08 Feb 08 May 08 Sep 08 Sep 08	QTR 1: Update PMP Prepare SOWs Complete Draft MVR EAs Review and Prepare Final Initiate MVP NHPA Consultation for Protection EA QTR 2: Complete Draft MVP EA Review and Prepare Final Award Contracts QTR 3: Review and Coordinate Draft Products QTR 4: Review and Coordinate Draft Products Submit Final Products	**$300,000**
M1.	**Forest Management Reno Bottoms**	1) Update PMP 2) Regional PDT review of draft FMP 3) Regional PDT mtg 4) Draft FMP revisions 5) Public info notice and review 6) Final plan revisions 7) Product: Final Systemic Forest Mgmt Plan 8) Partner coord and public involv for Reno Bottoms Proj 9) Product: Final PIR for Reno Bottoms Proj 10) Partner coord and public involv for MVR/MVS forest projects 11) Product: PIRs for adaptive forest restoration projects in MVR and MVS	Nov 07 Nov 07 Nov 07 Mar 08 Apr 08 Jun 08 Jul 08 Mar 08 Apr 08 Jul 08 Sep 08	QTR 1: - Updated PMP QTR 3: - Final PIR for Reno Bottoms Project QTR 4: - Final Systemic Forest Mgmt Plan - Final PIR for MVR/MVS forest projects	**$200,000**
M2.	**Forest Management Emiquon West**	1.) Complete cultural coordination 2.) Finalize project alternatives 3.) Update PIR 4.) Begin HEP modeling 5.) Phase I cultural work 6.) HTRW Phase I 7.) Complete draft PIR		QTR 1: - Updated PMP - Finalize Project Alternatives QTR 2: - Phase I Cultural Work - Begin HEP modelling QTR 3: - HTRW Phase I - Stakeholder Meeting QTR 4: - Finalize DRAFT PIR, begin review	**$100,000**

NESP Project Identifier & Name		PMP Scope, Activities & Scheduled Completion Dates		Primary FY08 Tasks and Products (by quarter)	FY08 Budget Allocations
N.	**Fleeting Plan**	The plan will examine existing fleeting areas, fleeting capacity, and future fleeting location needs; identify critical habitat areas, and suitable areas for development that avoid or minimize fleeting impacts to fish and wildlife resources. Using a GIS database(s) and mapping, the end product would be a series of suitability maps, which would identify likely areas for future fleeting development. The process would involve extensive coordination with the barge industry.		QTR 1: - Complete and Distribute Existing condition GIS Meet with Stake holders on existing condition QTR 2: - Modify existing condition based on comments Initiate suitability database development QTR 3: - Stake holder meetings in support of suitability mapping QTR 4 : - Detailed outline for Fleeting Plan report Coordinated with stake holders	**$110,000**
O.	**Island Creation**	Currently No Active Island Creation Projects		Note: Project O1. Pool 11 Islands Project was discontinued at end of FY06 due to concerns over impacts to native mussel populations, especially the Federally Endangered Higgins Eye	**$0**
P1.	**Fish Passage - L&D 26**	Project Management Plan Updates NEPA Coordination ADH Modeling HTRW Phase I FY07 Monitoring Report Project Monitoring	1st qtr 1st qtr 3rd qtr 3rd qtr 3rd qtr FY08	QTR 1: Testing of stationary hydroacoustics Alternatives investigation NEPA Coordination, ADH Modeling Telemetry contract award and monitoring Gate Bay Hydroacoustic Monitoring QTR 2: Alternative investigation Habitat Evaluation, HTRW Real Estate costs (gross appraisal update) ADH Modeling Geotechnical Analysis, Structural Analysis Civil Analysis, Telemetry monitoring Cultural Resources - Tribal and historic properties coordination QTR 3: Hydroacoustics and Tailwater Sampling Geotechnical Analysis, Structural Analysis Civil Analysis, ADH Modeling, PIR development, Telemetry monitoring QTR 4: PIR development, Preliminary Cost Estimate for Alternatives Preliminary Design/Quantities , Telemetry monitoring	**$600,000**

NESP Project Identifier & Name		PMP Scope, Activities & Scheduled Completion Dates		Primary FY08 Tasks and Products (by quarter)	FY08 Budget Allocations
P2.	**Fish Passage - L&D 22**	Project Management Plan Update PIR ITR AFB Public Meeting Final PIR Monitoring Studies	1st qtr 1st qtr 3rd qtr 3rd qtr 3rd qtr FY 08	QTR 1: Incorporate charette comments on PIR Contract Award - ITR Team ITR Review of draft report Prepare and distribute briefing materials Contract award - Telemetry contract QTR 2: Revised Project Management Plan Hydroacoustics and Fish Sampling of Tailwaters River Council Briefing (QMP briefing 7) Alternative Formulation Briefing (QMP briefing 8) PIR Editing, Repro/mail report to public agencies Public Meeting (QMP briefing 9) QTR 3: Finalization of PIR, Statement of Findings Package OC Review for Legal sufficiency Final signoff (QMP briefing 10) Final Project Implementation Report QTR 4: Initiate Plans and Specs, Hydroacoustics and Fish Sampling of Tailwaters	**$900,000**
Q2.	**Floodplain Restoration - Root River, MN**	Discontinued until Program Authorized			**$0**
Q3.	**Floodplain Restoration - Pierce County, WI**	Discontinued until Program Authorized			**$0**
R1.	**Pool Water Level Management: Pool 5**	Evaluation 2006 monitoring rpts Update H&H environmental Plan formulation Evaluate benefits and costs partner collaboration draft project imple report inititiate ITR process ITR, AFB, public meetings finalize ITR submit PIR to higher authority conduct drawdown of pool 5	Jun 07 Jul 07 Aug 07 Sep 07 Nov 07 Dec 07 Jan 08 Apr 08 Jun 08 Jul 08	QTR 1& 2: Complete draft PIR and EA Initiate ITR QTR 3: ITR, AFB, public meetings QTR 4: Finalize ITR Submit PIR to higher authority for review and approval	**$100,000**
R2.	**Pool Water Level Management: Pool 9**	Update H/H and env Agency partner coordination (including FWS) Draft PIR Evaluate Monitoring Reports Public Meetings (2) Initiate ITR process	1 Jul 07 1 Feb 08 1 Mar 08 1-Jan-08 15-Jun-08 30-Jun-08	QTR 2: Draft PIR 1 Mar 08 Draft FONSI 1 Mar 08	**$50,000**

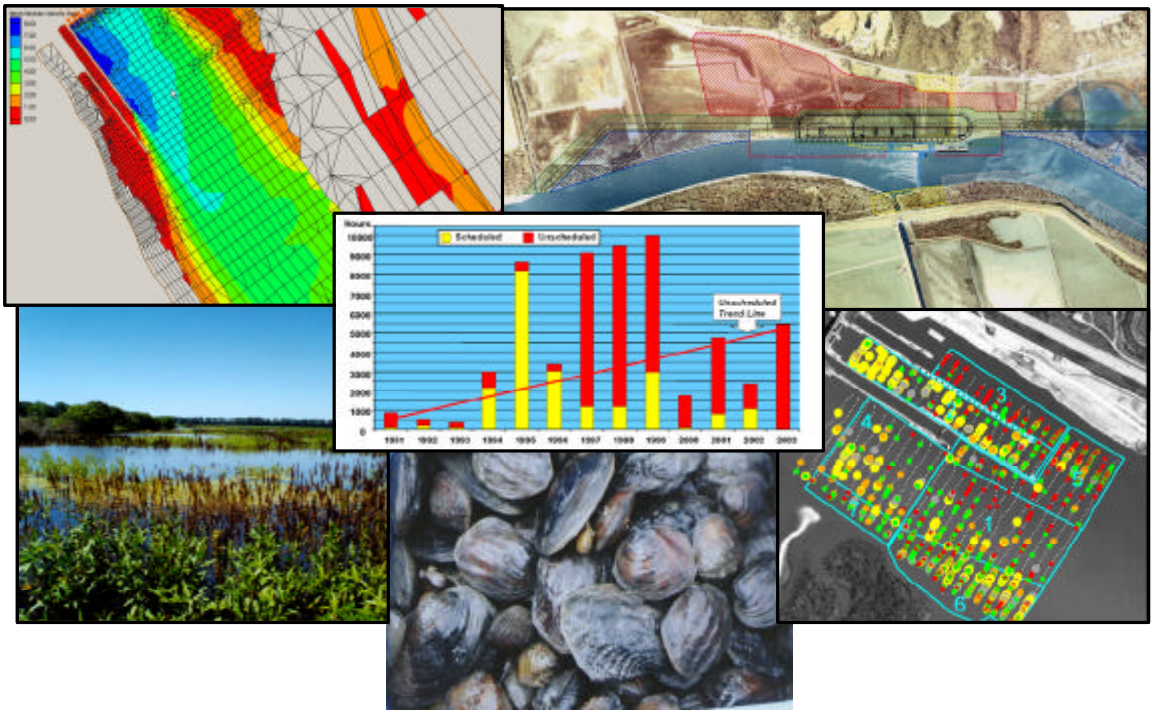
NESP Project Identifier & Name		PMP Scope, Activities & Scheduled Completion Dates		Primary FY08 Tasks and Products (by quarter)	FY08 Budget Allocations
R3.	**Pool 18 Water Level Management:** **R3a. Project Implementation Report (PIR)**	Project Management Plan Draft Project Information Report Draft Implementation Plan Draft Monitoring Plan Public Meetings Final PIR Plans & Specificatons Construction	01 Feb 05 30 Sep 07 30 Sep 07 30 Sep 07 31 Mar 08 30 Jun 08 30 Sep 08 30 Sep 08 01 Mar 09	QTR 1 and 2: Vertical Coordination of Draft Report, Public Meetings (Subject to approval to go to public which may depend upon authorization status) QTR 3: Finalize PIR and Initiate P&S QTR 4: Complete P&S	**$200,000**
	Pool 18 Water Level Management: **R3b. Monitoring**			QTR 1: - Complete Carry over Mussel Contract QTR 4: - Potential Follow-up Work Subject to Mussel Survey Results	
R4.	**?? NEW Start Water Level Management**	- Scope initiation of additional Pool WLM - Identify Team Leader and PDT - Develop PMP		QTR 2: - Work with stake holders to identify two pool scale water level management projects. - Apply system criteria to selected projects QTR 3: - Initiate WLM project planning QTR 4: - Develop alternatives - Initiate alternatives evaluation	**$242,000**
S.	**Backwater Restoration (Dredging) - Middle Peoria Pool Backwaters**	Develop and test adaptive management options for ongoing system/project monitoring, modeling, and evaluation; fact sheet for project selection		QTR 1: Alternatives Report QTR 2: Habitat Evalaution & IC/CE Analysis Rpt QTR 3: Team Review Draft of PIR, ITR Draft of PIR QTR 4: ITR	**$250,000**
U1.	**Side Channel Restoration - Buffalo Island**	Complete Draft Report PIR submitted PIR approved Complete Engineering & Design Construction Award Complete Construction Complete Monitoring Complete Project Closeout incl Final Report	Sep 07 Jan 08 Jul 08 Sep 08 Mar 09 Sep 09 Aug 11 Nov 11	QTR 1: ITR PIR Submit Draft PIR for Public Review QTR 2: Conclude Year 3 Monitoring, Complete monitoring & Pre Project Report Finalize PIR QTR 3: Start/complete P&S BCOE QTR 4: P&S to CT Construction Award	**$380,000**
U2.	**Side Channel Restoration - Scheniman Chute**	Contingent on WRDA Authorization		Revise existing Decision documentation to allow submittal for ASA(CW) approval under New NESP authority.	**$20,000**
V1.	**Wing Dam/Dike Alteration - Herculaneum**	Initiate Feasibility Study Complete Pre-Construction Monitoring Complete Alternatives Analysis Complete Draft Report Feasibility Study Approved Complete Engineering & Design Complete Construction Complete Post Monitoring Complete Project & Final Report	Feb 05 Jul 05 Jan 06 Jan 07 Nov 07 Sep 07 Sep 08 Sep 09 Oct 12 Oct 13	QTR 1: Continue Year 3 Monitoring Review report from Year 2 Monitoring Complete Plans and Specs Complete Draft EA & PIR QTR 2: Continue Year 3 Monitoring Send final EA & PIR to MVD/HQ QTR 3: Conclude Year 3 Monitoring QTR 4: Complete BCOE process Apply for Regulatory Permit for FY09 Construction Bythemetric and topograhpic survey of constuction area	**$265,000**

NESP Project Identifier & Name		PMP Scope, Activities & Scheduled Completion Dates		Primary FY08 Tasks and Products (by quarter)	FY08 Budget Allocations
V2.	**Wing Dam/Dike Alteration - Pool 2**	Complete any remaining pre-project monitoring. Complete ITR or other specific NESP activities.		Appropriate reports for pre-project monitoring.	**$20,000**
W.	**Island Shoreline Protection**			QTR 1: MVR - Initiate PIR w/ Integrated EA for Long Island continue design work on long island MVS- Initiate PIR w/ integrated EA for Twin Island continue twin island design and pre-construction monitoring MVP- Initiate PIR w/ integrated EA for Methodist Lake continue design work on Methodist Lake QTR 2: MVR: Continue work on PIR and Finalize design MVS: continue work on PIR and finalize design and monitoring MVP: continue design work and PIR work QTR 3: MVR: continue PIR, editor starts report MVS: continue PIR MVP: continue PIR- finalize design QTR 4: MVR: Complete PIR MVS: Complete PIR MVP: Complete PIR	**$250,000**
X.	**Dam Point Control - L&D 25**	Initiate Feasibility Study Complete Alternatives Analysis Complete Draft Report Feasibility Study Approved Complete Engineering and Design Complete Project	26 Jan 05 30 Apr 09 30 Nov 09 30 Sep 10 30 Sep 11 30 Sep 13	ALL YEAR: Continue Alternatives Analysis, Borings, Biological Existing Conditions Determination	**$300,000**
Y.	**Dam Embankment Lowering - L&D 8** **Ya. Project Study Activities**	Complete Alternatives Formulation (9/30/07) Perform Cost Estimate of Project Alternatives (10/31/07) Perform Cost Evaluation and Incremental Cost Analysis (11/30/07) Identify Selected Plan (11/30/07) Complete DraftPIR/EA (12/31/07) Perform ITR (1/31/08) Public Meeting (3/15/08) Public Review Completed (3/31/08) Sign FONSI (5/31/08) Finalize PIR (5/31/08) Initiate and work on Plans and Specs (6/1 thru 9/30 2008)		QTR 1: Complete Draft PIR QTR 2: ITR, Public Review Period, including public meeting. QTR 3: Finalize PIR QTR 4: Initiate Plans and Specifications	**$200,000**
	Dam Embankment Lowering - L&D 8 **Yb. Monitoring**	Idnetify FY07 Monitoring Needs Initiate FY07 Monitoring Program	1 Dec 07 30 Sept 08	QTR 2: Determine if monitoring is needed in FY08. QTR 2,3,4: FY08 Monitoring Summary Data/Reports	
				TOTALS	**$14,000,000**

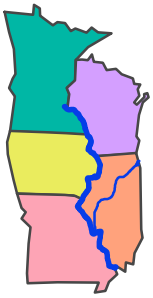
UPPER MISSISSIPPI RIVER SYSTEM

NAVIGATION AND ECOSYSTEM SUSTAINABILITY PROGRAM (NESP)

Overview of Contractual Monitoring & Data Collection Activities FY05-07



AUGUST 21, 2007



FY08 NESP PROJECTS AND ASSOCIATED PMs and DPMs

Last Updated: 8-14-07

Projects Activities	Lead District	Project Manager (Team Leader)	District Program Manager
PROGRAMMATIC PROJECTS			
A. Program Management	MVR	Whitney, Scott	Whitney, Scott
B. Institutional Arrangements (PED)	MVP	Soileau, Rebecca	DeZellar, Jeff
C. Systemic Public Involvement	MVP	Bluhm, Kevin	DeZellar, Jeff
ECONOMIC RE-EVALUATION			
D. Navigation Adaptive Management	MVS	Astrack, Rich	Astrack, Rich
NAVIGATION EFFICIENCY PROJECTS			
E. Systemic Env. Mitigation	MVR	Cornish, Mark	Whitney, Scott
F. Navigation Appointment Scheduling	TBD	TBD	TBD
G1. L&D 14 Mooring Cell	MVR	Fleischman, Jon	Whitney, Scott
G2. L&D 24 Mooring Cell	MVS	Moeller, Bill	Astrack, Rich
G3. L&D LGR Mooring Cell	MVR	Jon Fleischman	Whitney, Scott
H. Switchboat	MVS	Gordon, David	Astrack, Rich
I1. Lock 22	MVR	Tarpey, Mike	Whitney, Scott
I2. Lock 25	MVS	Hobbs, Steve	Astrack, Rich
I3. Lock La Grange	MVR	Hunemuller, Toby	Whitney, Scott
ECOSYSTEM RESTORATION PROJECTS			
J. UMRS Ecosystem Rest. Plan	MVR	Theiling, Charles	Whitney, Scott
K. Ecosystem Adaptive Management	MVR	Barr, Ken	Whitney, Scott
L. System Cultural Stewardship	MVR	Ross, Jim	Whitney, Scott
M1. Forest Management - Reno Bottoms, MN	MVP	Urich, Randy	DeZellar, Jeff
M2. Forest Management - Emiquon West, IL	MVR	Moore, Amy	Whitney, Scott
N. Fleeting Plan	MVR	Bollman, Dorene	Whitney, Scott
O1. Island Building - Pool 11	MVR	Nickel, Rick	Whitney, Scott
O2. Island Building - Pool 18	MVR	Theiling, Charles	Whitney, Scott
P1. Fish Passage - L&D 26	MVS	Atchley, Tamara	Astrack, Rich
P2. Fish Passage - L&D 22	MVR	Cornish, Mark	Whitney, Scott
Q1. Floodplain Restoration - Emiquon, IL	MVR	Thompson, Brad	Whitney, Scott
Q2. Floodplain Restoration - Root River, MN	MVP	Petersen, Jon	DeZellar, Jeff
Q3. Floodplain Restoration - Pierce County, WI	MVP	Petersen, Jon	DeZellar, Jeff
R1. Pool Water Level Management - Pool 5	MVP	DeZellar, Jeff	DeZellar, Jeff
R2 Pool Water Level Management - Pool 9	MVP	Jutilla, Scott	DeZellar, Jeff
R3. Pool Water Level Management - Pool 18	MVR	Landwehr, Kevin	Whitney, Scott
S. Backwater Restoration - IWW Peoria Reach	MVR	Plumley, Marshall	Whitney, Scott
U1. Side Channel Restoration - Buffalo Island	MVS	Johnson, Brian	Astrack, Rich
U2. Side Channel Restoration - Scheniman Chute	MVS	Markert, Brian	Astrack, Rich
V1. Wing Dam/Dike Alteration - Herculaneum	MVS	Lamm, Dawn	Astrack, Rich
V2. Wing Dam/Dike Alteration - Pool 2	MVP	Stefanik, Elliot	DeZellar, Jeff
W. Island Shoreline Protection	MVR	Kirkeeng, Thomas	Whitney, Scott
X. Dam Point Control - L&D 25	MVS	Kniep, Michelle	Astrack, Rich
Y1. Dam Embankment Lowering - L&D 8	MVP	Stefanik, Elliot	DeZellar, Jeff
Y2. Dam Embankment Lowering - L&D 3	MVP	Sully, Tom	DeZellar, Jeff
Z. Reduce Water Level Fluctuation - IWW	MVR	Landwehr, Kevin	Whitney, Scott

UMRS NESP SUMMARY OF CONTRACTUAL MONITORING/DATA COLLECTION ACTIVITIES FY05-07

	Aquatic Veg	Terrestrial Veg	Fisheries	Mussels	Water Quality	Ecos. Sys. Monit. Plan
2005	$143,089	$82,000	$314,749	$162,562	$15,547	$188,454
2006	$68,815	$9,450	$525,884	$95,139	$45,990	$0
2007	$11,000	$18,970	$576,953	$324,450	$31,936	$0
2005-07	**$222,904**	**$110,420**	**$1,417,586**	**$582,151**	**$93,473**	**$188,454**

	Sediments	Bathymetry	Topography	Geomorph	Geotech	Hydraulics
2005	$61,312	$32,880	$203,107	$139,553	$340,121	$31,343
2006	$0	$39,079	$0	$35,000	$259,520	$94,949
2007	$16,130	$0	$18,036	$0	$92,774	$7,925
2005-07	**$77,442**	**$71,959**	**$221,143**	**$174,553**	**$692,415**	**$134,216**

	Archeology	Recreation	Econ Forecasts	Lock Struct Design	Barge Appt Sched
2005	$201,947	$14,500	$0	$89,938	$0
2006	$18,900	$0	$445,500	$415,622	$15,000
2007	$284,029	$0	$391,940	$678,311	$0
2005-07	**$504,876**	**$14,500**	**$837,440**	**$1,183,871**	**$15,000**

	TOTALS
2005	**$2,021,104**
2006	**$2,068,847**
2007	**$2,452,454**
2005-07	**$6,542,404**

UMRS NESP SUMMARY OF CONTRACTUAL MONITORING/DATA COLLECTION ACTIVITIES

FY 2005

Proj	FY	Description	Type of Monitoring	Resource Group
Feas	2005	Hydroacoustic Data (Statistical analysis)	**Baseline**	**Hydraulics**
E	2005	Survey of Potential Plant Impact	**Baseline**	**Aquatic Veg**
E	2005	Adult Fish Trawling	**Baseline**	**Fish**
E	2005	Adult Fish Trawling	**Baseline**	**Fish**
E	2005	Trawling work	**Baseline**	**Fish**
E	2005	Lead Plates for Trawling Net	**Baseline**	**Fish**
E	2005	Trawling net purchase	**Baseline**	**Fish**
I1	2005	Geotechnical borings	**Baseline**	**Geotech**
I1	2005	Mussel Survey - SS Mitigation	**Baseline**	**Mussel**
I1	2005	Mussel Survey - SS Mitigation	**Baseline**	**Mussel**
I1	2005	Field surveys and Mapping	**Baseline**	**Topography**
I1	2005	3D Modelling & Visualization	**Baseline**	**Topography**
I2	2005	Overwater Exploration	**Baseline**	**Geotech**
I2	2005	Hydraulics Modeling Efforts	**Baseline**	**Hydraulics**
I2	2005	Geotechnical borings	**Baseline**	**Geotech**
I2	2005	Topograhpic Surveys for LD25	**Baseline**	**Topography**
I2	2005	Geotech Analysis @ LD25	**Baseline**	**Geotech**
I3	2005	Field Survey and Mapping LaGrange	**Baseline**	**Topography**
I3	2005	Lock Alignment Investigations	**Baseline**	**Structural Design**
Kb	2005	Harlow Fish Sampling Anaysis and Report	**Post**	**Fish**
Kb	2005	Contract for Aquatic Vegetation Survey	**Baseline**	**Aquatic Veg**
Kb	2005	Harlow Slough Elevation Survey	**Post**	**Topography**
Kc	2005	Science Panel/Monitor Plan	**SMP**	**Ecos Monit. Plan**
Kc	2005	Science Panel/Monitor Plan	**SMP**	**Ecos Monit. Plan**
Kb	2005	USGS Data Analysis - Scheniman Chute	**SMP**	**Fish**
Kb	2005	CASM Contract	**SMP**	**Ecos Monit. Plan**
Kb	2005	WQ Equip Purchase 50/50 Split with EMP	**Baseline**	**WQ**
L	2005	Archeological Testing 3 sites P12	**Baseline**	**Archeology**
L	2005	Archeological Testing	**Baseline**	**Archeology**
L	2005	Archeological Monitoring	**Baseline**	**Archeology**
L	2005	MVS Landform Sediment Assemblage	**Baseline**	**Geomorph**
L	2005	Archeological Site/Survey	**Baseline**	**Archeology**
M1	2005	Reno Bottoms Forest Resrouce	**Baseline**	**Terr Veg**
M1	2005	MVS Sediment ranged resruvey	**Baseline**	**Terr Veg**
M1	2005	MVR Sediment transect forestry Mgmt	**Baseline**	**Terr Veg**
N	2005	Mussel Survey/Relocation	**Baseline**	**Mussel**
P1	2005	Mel Price Monitoring MVS	**Baseline**	**Fish**
P1	2005	Aquacoustic Equipment	**Baseline**	**Fish**
P2	2005	Geotechnical Boring Contract	**Baseline**	**Geotech**
P2	2005	Expansion of Miss River Fisheries Telemetry	**Baseline**	**Fish**
P2	2005	Field surveys and Mapping	**Baseline**	**Bathymetry**
P2	2005	Mel Price Hydoacoustic Fish Monitoring	**Baseline**	**Fish**
P2	2005	Elutirate Sample	**Baseline**	**WQ**
P2	2005	Aquacoustic Equipment	**Baseline**	**Fish**
R1	2005	Sediment Budget - Main Channel	**Baseline**	**Sediment**
R1	2005	Recreational Use Aerial Survey during P5 drawdown	**Baseline**	**Recreation**
R1	2005	Sed Nitrogen Effects	**Baseline**	**Sediment**
R1	2005	Weaver Bottoms Lab	**Baseline**	**Sediment**
R1	2005	USFWS/MNDNR Mussel Survey	**Baseline**	**Mussel**
R2	2005	USFWS/MNDNR Mussel Survey	**Baseline**	**Mussel**
R2	2005	Archival Survey and Planning Report	**Baseline**	**Archeology**
U1	2005	Fish and water Quality Monitoring	**Baseline**	**Fish**
V1	2005	Fisheries Pre-Project Montioring	**Baseline**	**Fish**
V1	2005	Water/Sediment Quality Certification	**Baseline**	**Sediment**
X	2005	Surveys SAST Mapping Verification	**Baseline**	**Bathymetry**
Y	2005	Flow Distribution of LD8	**Baseline**	**Hydraulics**
Z	2005	Contract for Aquatic vegetation assessment IWW	**Baseline**	**Aquatic Veg**
			FY05 TOTAL	**$2,021,104**

UMRS NESP SUMMARY OF CONTRACTUAL MONITORING/DATA COLLECTION ACTIVITIES

FY 2006

Proj	FY	Description	Type of Monitoring	Resource Group
Dd	2006	Traffic Forecasts (Grain and NonGrain)	**Report**	**Econ Forecasts**
Dd	2006	Barge-Rail Rate Analysis	**Report**	**Econ Forecasts**
E	2006	SAV Vegetation Sampling	**Baseline**	**Aquatic Veg**
E	2006	Main Channel Fish Trawling	**Baseline**	**Fish**
E	2006	Main Channel Fish Trawling	**Baseline**	**Fish**
F	2006	Appointment Scheduling Test	**Baseline**	**Traffic**
I1b	2006	L22 Lock Wall Tie-In	**Design**	**Structural Design**
I1b	2006	Lock 22 Rock Removal	**Design**	**Structural Design**
I1b	2006	Lock 22 Downstream Bulkhead Sil	**Design**	**Structural Design**
12b	2006	Existing Guidewall Analysis	**Baseline**	**Hydraulics**
12b	2006	AE Upstream/Downstream Analysis	**Baseline**	**Geotech**
12b	2006	L25 Lock Wall Tie-in	**Baseline**	**Structural Design**
12b	2006	Lockwall and Approach Conditions Evaluation	**Baseline**	**Structural Design**
I2b	2006	Typical Monlith Design	**Baseline**	**Structural Design**
12b	2006	Seepage Analysis	**Baseline**	**Geotech**
I3a	2006	LaGrange Site Alignment	**Baseline**	**Geotech**
J	2006	DSS/Landscape Analysis	**Baseline**	**Geomorph**
J	2006	Harlow Reach Monitoring	**Post**	**Fish**
L	2006	Acheology Site Testing	**Baseline**	**Archeology**
O	2006	Pool 11 Mussel Resurvey	**Baseline**	**Mussel**
P1b	2006	MV Boyer Acoustic Doppler Profiles	**Baseline**	**Hydraulics**
P1b	2006	Tagging and Telemetry Study	**Baseline**	**Fish**
P2b	2006	Hydroacaoustic Data Fish Passage	**Baseline**	**Fish**
P2b	2006	Fisheries Sampling - Electroshocking	**Baseline**	**Fish**
P2b	2006	Hydroacaoustic Design	**Baseline**	**Fish**
P2b	2006	Fish Passage Monitoring	**Baseline**	**Fish**
P2b	2006	Fish Telemetry Study	**Baseline**	**Fish**
R1b	2006	Pool 5 Drawdown Monitoring	**Post**	**Aquatic Veg**
R1b	2006	Pool 5 Mussel Monitoring	**Post**	**Mussel**
R3	2006	Shallow Water Recon Survey	**Baseline**	**Bathymetry**
S	2006	IWW Backwater Core Sampling	**Baseline**	**Geotech**
U1	2006	Water Quality Analysis	**Baseline**	**WQ**
U1	2006	Biological Monitoring (MDC)	**Baseline**	**Fish**
U1	2006	Hydroacoustic Analysis	**Baseline**	**Geotech**
U1	2006	Hydrolab Equipment Purchase	**Baseline**	**WQ**
U1	2006	WQ Analysis	**Baseline**	**WQ**
U1	2006	HTRW Coring & Analysis	**Baseline**	**Geotech**
V1b	2006	Monitoring USFWS Fisheries Study	**Baseline**	**Fish**
V1b	2006	Water Sample Analysis	**Baseline**	**WQ**
W	2006	Mussel Survey - Twin Island, Illinois River	**Baseline**	**Mussel**
X	2006	Side Channel Surveys	**Baseline**	**Bathymetry**
Y	2006	Baseline Forest. Veg Monitor Reno Bottoms	**Baseline**	**Terr Veg**
			FY06 TOTAL	**$2,068,847**

UMRS NESP SUMMARY OF CONTRACTUAL MONITORING/DATA COLLECTION ACTIVITIES

FY 2007

Proj	FY	Description	Type of Monitoring	Resource Group
Dd	2007	Traffic Forecast Coal	**Report**	**Econ Forecasts**
Dd	2007	Congestion Induced traffic	**Report**	**Econ Forecasts**
Dd	2007	Rail Rate analysis	**Report**	**Econ Forecasts**
Dd	2007	Water Compelled railroad rates	**Report**	**Econ Forecasts**
E	2007	Towboat Propeller Mortality Study	**Baseline**	**Fish**
E	2007	IWW HABS HAER (Acheology)	**Baseline**	**Archeology**
I1b	2007	Lock Materials Study	**Design**	**Structural Design**
I1a	2007	USFWS Monitoring Deepwater Sampling	**Baseline**	**Fish**
I1c	2007	Mussel Survey Lock 22	**Baseline**	**Mussel**
I1c	2007	Fish Sampling Material Lock 22	**Baseline**	**Fish**
I1c	2007	Hydroacoustic Materials CC Purchase	**Baseline**	**Fish**
I1b	2007	Lock Wall Without Culvert Design	**Design**	**Structural Design**
I1b	2007	Lock Wall Without Culvert Opt A	**Design**	**Structural Design**
I1b	2007	Miter Gate Concept Design Inca Engineers	**Design**	**Structural Design**
I2b	2007	TOPO SURVEYS	**Design**	**Structural Design**
I2b	2007	Miter Gate Concept Design Inca Engineers	**Design**	**Structural Design**
I2b	2007	OPT A-L25BH-Miter Gate Concept Design	**Design**	**Structural Design**
I2c	2007	HTRW Phase I	**Design**	**Structural Design**
I2c	2007	HTRW 401 Evaluation	**Design**	**Structural Design**
I2b	2007	Seepage Analysis	**Baseline**	**Geotech**
12b	2007	Geo-Archeological Survey	**Baseline**	**Archeology**
12c	2007	WQ Analysis with HTRW 401 Eval	**Baseline**	**WQ**
12	2007	Mussel Survey	**Baseline**	**Mussel**
J	2007	Harlow Island Fisheries Monitoring	**Post**	**Fish**
J	2007	Mussel Sampling Design	**Baseline**	**Mussel**
L	2007	Phase II Arch Testing	**Baseline**	**Archeology**
M1	2007	HGM Feasibility Report - Forest Succession	**Baseline**	**Terr Veg**
M2	2007	Archeology Geomorphic Analysis	**Baseline**	**Archeology**
M2	2007	Terrestrial Veg Modelling (Succession)	**Baseline**	**Terr Veg**
P1b	2007	Hydro Acoustic Data Analysis	**Baseline**	**Fish**
P1b	2007	Topographic Survey	**Baseline**	**Topography**
P1b	2007	Fish Monitoring - Electroshocking	**Baseline**	**Fish**
P1b	2007	Hydroacoustic Data Analysis	**Baseline**	**Hydraulics**
P2a	2007	Aquacoustic Fish Passage	**Baseline**	**Fish**
P2b	2007	Fish Monitoring - Electroshocking	**Baseline**	**Fish**
P2b	2007	Hydrologic Profile Analysis	**Baseline**	**Hydraulics**
P2b	2007	Fish Telemetry Work	**Baseline**	**Fish**
R1b	2007	USGS Vegetation Monitoring	**Baseline**	**Aquatic Veg**
R3	2007	NESP Pool 18 Mussel Survey	**Baseline**	**Mussel**
R3	2007	Sediment Sampling	**Baseline**	**Sediments**
S	2007	HTRW Phase I	**Baseline**	**Sediments**
U1	2007	Water Quality Analysis	**Baseline**	**WQ**
V1b	2007	Fish Monitoring	**Baseline**	**Fish**
V1b	2007	Water Quality Analysis	**Baseline**	**WQ**
W	2007	Wyalusing Slough (Methodist Lk) shoreline	**Baseline**	**Geotech**
Ya	2007	Reno bottoms Cultural Investigations	**Baseline**	**Archeology**
			FY07 TOTALS	**$2,452,454**

US Army Corps of Engineers®

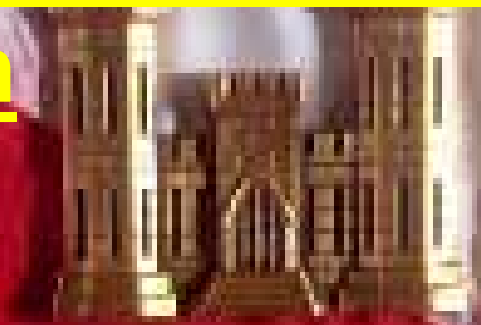
Presentation to

NECC/ECC MEETING

La Crosse, Wisconsin

August 22, 2007

NESP: Navigation Component FY08 Plan



by

Jeff Stamper, P.E.

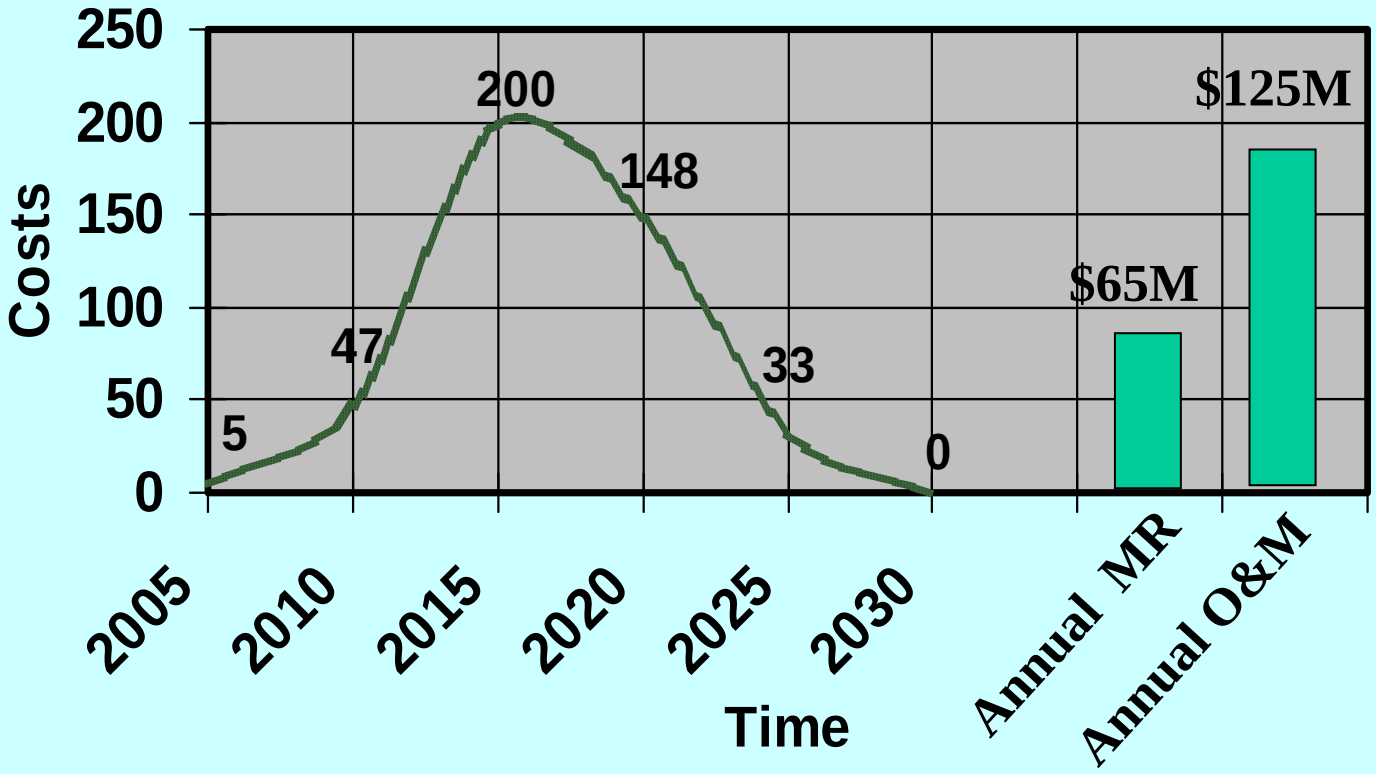
Navigation Component Technical Manager

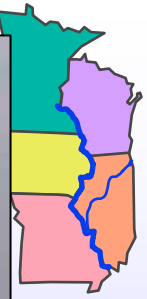
Nav Tasks	Nav Efficiency Program 2005 - 2009, $1000's					
	2005	2006	2007	2008	*2009*	
	PED	PED	PED	PED	*PED*	*Constr*
Traffic Mgt.	40	34	7	100	*100*	*0*
Moorings	170	62	270	150	*500*	*3100*
Switchboats	89	35	80	25	*50*	*2300*
Lock 25	1726	1643	2000	2676	*6300*	*??*
Lock 22	1868	1693	1805	2157	*4500*	*??*
Lock 24	0	0	0	0	*??*	*0*
Lock 21	0	0	0	0	*??*	*0*
Lock 20	0	0	0	0	*0*	*0*
LaGrange	244	290	500	380	*1000*	*0*
Peoria	0	0	0	0	*0*	*0*
Syst. Mit.	343	284	375	600	*1100*	*0*
Totals	$4,480	$4,041	$5,037	$6,088	*$13,550*	*$5,400*
Rec. Plan (2005 prices)	$3,750	$6,300	$15,300	$21,600	*$31,300*	

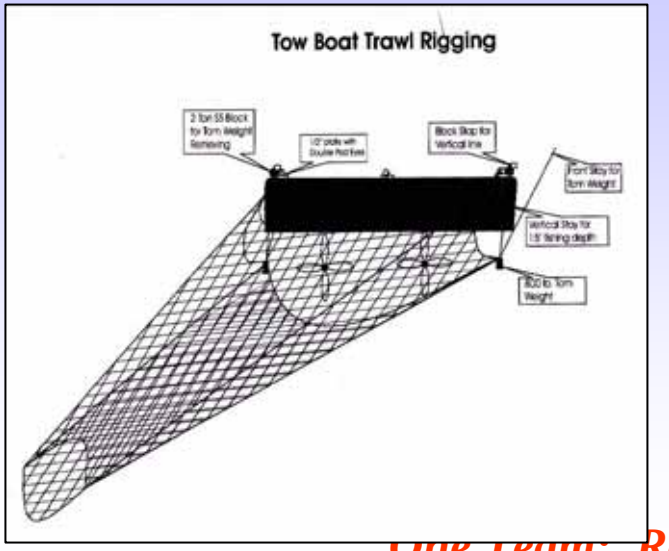
US Army Corps of Engineers®

Navigation System Plan

First Increment Navigation Program Costs






Tow Boat Trawl Rigging

Fish Entrainment Sampling

Abundance and Size

gizzard shad

freshwater drum

emerald shiner

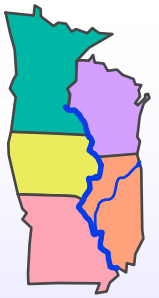
channel catfish

smallmouth buffalo

bigmouth buffalo

bighead carp

quillback



The NECC fisheries sub-group recommended:

1) Complete main channel trawling for the winter period 2007-8 in Pool 26 and the Alton Reach and Peoria Pool of the IWW

2) Complete main channel trawling in the middle Mississippi during the summer, fall, winter and spring using a modified net, 11 loaded barges and a bow thruster or 1000 horsepower helper boats.

3) Cease data collection Marseilles Pool and Pool 14.

1) Model trawling data using both the Bartell and the Miranda modeling methods.

2) Net damage vs. propeller damage study

3) Sample in the main channel near the tailwaters of the dams

4) Perform a comparison of day vs. night entrainment in the Alton Reach & Pool 26.