

**Minutes of the
102nd Quarterly Meeting
of the
Upper Mississippi River Basin Association**

**May 22, 2007
Rock Island, Illinois**

The meeting was called to order at 10:05 a.m. by UMRBA Chair Mike Wells. The following were present:

UMRBA Representatives and Alternates:

Gary Clark	Illinois (DNR)
Martin Konrad	Iowa (DNR)
Dick Vegors	Iowa (DED)
Laurie Martinson	Minnesota (DNR)
Rebecca Wooden	Minnesota (DNR)
Mike Wells	Missouri (DNR)
Dru Buntin	Missouri (DNR)
Gretchen Benjamin	Wisconsin (DNR)

Federal Liaisons:

Gary Loss	U.S. Army Corps of Engineers (MVR)
Terry Smith	U.S. Army Corps of Engineers (MVD)
Bill Franz	U.S. Environmental Protection Agency (Region 5)
Mike Jawson	U.S. Geological Survey (UMESC)
Charles Wooley	U.S. Fish and Wildlife Service (Region 3)
Doris Washington	USDA Natural Resources Conservation Service

Others in attendance:

Roger Lauder	Illinois Environmental Protection Agency
Dan Injerd	Illinois Department of Natural Resources
Jay Rendall	Minnesota Department of Natural Resources
Tim Schlagenhaft	Minnesota Department of Natural Resources
Janet Sternburg	Missouri Department of Conservation
Rich Worthington	U.S. Army Corps of Engineers (HQ)
Chuck Spitzack	U.S. Army Corps of Engineers (MVR)
Ken Barr	U.S. Army Corps of Engineers (MVR)
Hank DeHaan	U.S. Army Corps of Engineers (MVR)
Scott Whitney	U.S. Army Corps of Engineers (MVR)
Denny Lundberg	U.S. Army Corps of Engineers (MVR)
Angie Freyermuth	U.S. Army Corps of Engineers (MVR)
Kevin Bluhm	U.S. Army Corps of Engineers (MVP)
Jeff DeZellar	U.S. Army Corps of Engineers (MVP)
Don Hultman	U.S. Fish and Wildlife Service (UMRNW & FR)
Jon Duyvejonck	U.S. Fish and Wildlife Service (RIFO)
Rick Nelson	U.S. Fish and Wildlife Service (RIFO)
Scott Yess	U.S. Fish and Wildlife Service
Cynthia Drew	University of Miami

Catherine McCalvin	The Nature Conservancy
Brad Walker	Prairie River Network (IL)
Tom Boland	MACTEC St. Louis
Jon Stravers	Audubon
Holly Stoerker	Upper Mississippi River Basin Association
Dave Hokanson	Upper Mississippi River Basin Association
Barb Naramore	Upper Mississippi River Basin Association

Announcements

Holly Stoerker noted that the meeting set up has been changed to better facilitate discussion among the members of the UMRBA Board and to maximize sight lines to the AV screen.

Mike Wells expressed UMRBA's sadness at the death of Teresa Kincaid, whom he described as a close friend and associate of many at UMRBA. Gary Loss said Teresa had started at the Corps of Engineers Rock Island District in 1981. In addition to working on a variety of Mississippi River programs such as GREAT, the Master Plan, the Navigation Study, and the Comprehensive Plan, Teresa played a leadership role in the Corps-wide Planning Associates Program. There was a moment of silence in remembrance of Teresa.

Meeting Minutes

Gretchen Benjamin moved and Gary Clark seconded a motion to approve the minutes of the February 20, 2007 quarterly meeting as drafted. The motion was approved unanimously.

Executive Director's Report

Holly Stoerker highlighted the following items from her written report:

- The LTRMP strategic planning effort is underway. The first meeting of the Planning Group was held on April 30-May 2. Barb Naramore is assisting with this process.
- The EMP staff services contract with the Corps of Engineers has been extended through the end of federal fiscal year 2007, at a total cost of \$47,000. In addition to support for the quarterly meetings of the EMP Coordinating Committee, the contract covers four additional special meetings.
- As part of its Oil Pollution Act (OPA) work, UMRBA staff are supporting development of spill response strategies for the St. Croix River north of the Twin Cities.
- It appears that a funding source has been identified for a \$15,000 grant from EPA to support two workshops focusing on the relationship between the Clean Water Act and river ecosystem restoration programs. We hope to have funding in place by June or July. [In response to a question, Stoerker clarified that the funds will be provided by EPA Region 5 and that additional funds from Region 7 are not anticipated.]
- It appears that ICWP's efforts to bring attention to the funding needs of the USGS National Streamflow Information Program and Cooperative Water Program are bearing fruit. A coalition of 10 Senators has proposed increasing federal support for streamgaging by \$35 million in FY08.
- Conflict of Interest statements have been received from all UMRBA Board members, alternates and staff.

Although not included in her written report, Stoerker also reported that Representative Ron Kind of Wisconsin has again introduced his Upper Mississippi River basin sediment and nutrient modeling and monitoring legislation. The bill was introduced this session as H. R. 2381 on May 17, 2007 and referred to the Natural Resources Committee.

In addition Stoerker reported that Representative Kagen of Wisconsin intends to offer an amendment to the 2007 Farm Bill, during markup of the conservation title in the House Agriculture Committee. The amendment would establish a \$100 million Discovery Watershed Program for the Upper Mississippi River Basin to reduce nutrient loss. The amendment is being promoted by Iowa Soybean Association, Environmental Defense, and the Sand County Foundation.

Navigation & Ecosystem Sustainability Program (NESP)

Water Resources Development Act (WRDA) — Rich Worthington reported that the House had approved its version of WRDA on April 19 and the Senate passed its bill on May 16, appointing conferees the following day. House conferees have not yet been named. A conference is expected to begin shortly after Memorial Day. According to Worthington, the Administration is not expected to threaten a veto.

Worthington also described WRDA's general provisions of potential interest to UMRBA, including the Corps' perspective on the proposals:

- Water Resources Planning Coordination Committee — The Corps has concerns that creation of such a committee would turn responsibility for Corps policies and planning guidance to an interagency committee, when such responsibility should reside with the Corps and the Secretary of the Army for Civil Works.
- Principles and Guidelines (P&G) — This provision would direct the Secretary to revise, replace, and implement new P&G. The House version also requires publication in the Federal Register. The Corps' concerns involve the fact that this House rulemaking provision may open up new avenues for legal challenges.
- Independent peer review — The Corps is more comfortable with the House version of the independent peer review provision. The Senate bill gives responsibility to the Secretary, rather than the Chief of Engineers. It also gives peer reviewers equal weight to the Corps, which is not a typical approach to peer review.
- Cost sharing for monitoring ecosystem projects — This provision, which is in the Senate WRDA, but not the House version, would require nonfederal interests to share in the cost of monitoring ecosystem restoration projects. It would also limit the amount of project costs allocated to monitoring and the length of time monitoring is federally funded. According to Worthington, this might be problematic for NESP. However, since NESP is envisioned as a 50-year program, rather than a single project, the applicability of the provisions is not entirely clear.

Holly Stoerker summarized how the House and Senate versions of WRDA differ with regard to their NESP provisions. For each difference, she also noted UMRBA's preference between the two versions. In particular, UMRBA prefers:

- Senate cost figures, which have been updated for inflation;
- House language regarding mooring facilities, which preserves flexibility in determining the locations;
- Senate mitigation directive (not in House version);
- House authorization to pursue the LTRMP under NESP if EMP is not funded (not in Senate version);
- House requirement for consultation and authority for funding agreements (not in Senate version);
- Senate's longer cycle for Reports to Congress;
- A date for the first report that is further in the future than June 30, 2008, which is the date in both the House and Senate versions; and
- House "comparable progress" provision, which recognizes that Congress, in addition to the Corps, may determine if comparable progress is being made.

Stoerker also noted that WRDA includes amendments to the EMP as well. Both the House and Senate versions make NGOs eligible as nonfederal sponsors of EMP projects. The House bill would also allow nonfederal contributions to be in the form of in-kind services. The Senate bill would authorize nutrient research and remediation as part of the LTRMP.

Rich Worthington explained that the Statement of Administration Policy (SAP) on WRDA makes specific reference to NESP in two regards. First, it indicates that NESP cost sharing should be 50-50, like the Everglades restoration. It also urges that the NESP comparable progress provision be deleted. Worthington said there is speculation about whether the Administration's position regarding the comparable progress provision reflects concern that the ecosystem restoration component may constrain the navigation improvements or vice versa. Worthington said he had not discussed this with OMB. However, he suggested that it should be viewed in light of the fact that the Administration is generally supportive of UMR ecosystem restoration, but has called for an economic reevaluation of the navigation improvements.

Gretchen Benjamin asked why the comparable progress provision was not mentioned in the SAP last year. She said it was curious that the Administration chose to address this issue following the controversy over the NESP "plus-up" exercise, when a number of UMR partners expressed concern about the balance of funding. Benjamin expressed her view that the comparable progress provision is important and should be retained.

Laurie Martinson moved and Gretchen Benjamin seconded a motion directing UMRBA staff to send a letter to the WRDA conferees describing UMRBA's position on the NESP differences in WRDA. Holly Stoerker stated her assumption that the letter would focus on UMRBA's top 3 issues from last year (mooring facilities, partnership, and monitoring) and that the other issues could be covered in an attachment. Gary Clark asked that UMRBA Board members be given an opportunity to review the letter before it is sent. With those clarifications the motion passed unanimously.

Gretchen Benjamin said, that as authorization of NESP grows nearer, the question of how EMP and NESP are to be integrated is becoming more important. She emphasized that EMP is a longstanding, proven program that has major accomplishments and is moving forward confidently and efficiently. She expressed concern that the EMP not be "left behind" as NESP moves forward. Benjamin said that UMRBA is optimistic, but concerned, and will be considering EMP-NESP integration strategies in the next few months. Mike Wells noted that the UMRBA Board has set time aside at its August meeting to discuss this topic. He invited other partners' input.

Gary Loss noted that the President's FY 08 budget proposed \$23.8 million for the EMP. He commented that Congressional appropriations for FY 08 and the Administration's FY 09 budget proposal will indicate what kind of support EMP has. Benjamin agreed, noting that misunderstandings about the program need to be addressed.

NESP Work Plan — Chuck Spitzack said he appreciated the discussion at the February quarterly meetings regarding the FY 07 NESP budget, including the follow-up letters received from the Fish and Wildlife Service, Wisconsin DNR, and Audubon. He reported that the final FY 07 budget allocation is \$14 million, rather than \$18 million, and showed the differences in each broad budget category. The economic reevaluation is the only item that will receive more funding under the \$14 million budget rather than the \$18 million budget. Spitzack presented the final FY 07 budget amounts for each NESP project. He noted that 66% of the NESP budget is devoted to labor, 2% to travel, 13% to interagency efforts, and 19% to contractors.

Spitzack said NESP is not included in the President's FY 08 budget, but there may be carryover funds from FY07. In addition, the status of WRDA may have implications for the FY08 budget.

Collaboration — Chuck Spitzack said that collaboration forums are in place at the river system, reach, and project levels, but may need some refinement. Restoration plans are under development at the reach and system levels and adaptive management is moving in a positive direction.

Spitzack also showed a series of slides illustrating the first increment funding stream annually and cumulatively. He commented that the first increment timeframe would be defined by the pace of the investment in navigation improvements.

Spitzack reported that “Institutional Arrangements” will not be pursued until NESP is authorized and funded in the Corps’ construction budget. The Corps will continue to work internally and with the Fish and Wildlife Service to refine the proposal regarding institutional arrangements.

Development of the NESP website is divided into 4 phases. The first phase has been completed, with the site now online. The next phases will include adding specific NESP projects, building GIS/visual capability, and eventually integrating other Corps programs and links to partners’ sites.

Martin Konrad asked what improvements are being considered for NESP collaborative efforts. Spitzack indicated he would like to build on EMP HREP planning to broaden it to ecosystem planning and said that collaboration is evolving. Konrad expressed concern that the States and other partners may not have enough staffing to meet the demands of a collaborative effort on the scale of NESP. He urged that the Corps be clear about what’s needed and not wait until the last minute to seek other’s input.

Economic Reevaluation — Chuck Spitzack said the draft interim report for the Economic Reevaluation will be sent to the Assistant Secretary of the Army (ASA) in September 2007. The primary audience for the report is the ASA’s office, which has still not acted on the Chief’s Report from 2004. In response to a question about how the economic reevaluation may be affected by the passage of WRDA, Spitzack said the reevaluation will be important for the Administration in developing its position on the navigation investment, including whether it will budget for the improvements.

Spitzack reviewed the specifications for the grain model inputs, under high and low traffic scenarios. He also said the Interim Report will include a discussion of intermodal and multimodal issues and will evaluate the recommended plan with regard to national and regional economic development, environmental quality, and other social effects.

The revised schedule for the reevaluation includes a second economics workshop on June 18-19, conclusion of internal Corps review by September 7, submittal of the draft interim report to ASA by September 13, public review in November, and completion by December 31. The internal review will include an opportunity for partners and stakeholders to comment.

Early Warning Monitoring Network

Roger Lauder, Illinois EPA, described the need for and benefits of an Early Warning Monitoring System on the Upper Mississippi River, noting that there are 49 pipeline crossings, 300 wastewater discharges, 29 power plants, and 26 community public water systems on the river. An early warning monitoring system would enable the detection of otherwise unreported spills and identification of the spilled product. It could improve responders’ response time and tracking of the plume, provide advanced notice to water suppliers, detect intentional contamination, and augment existing water quality monitoring with real-time data.

Lauder also described the Spill of National Significance (SONS) exercise scheduled for June 19-21, 2007. The scenario will involve an earthquake on the New Madrid fault of 7.7 on the Richter Scale. It will cause a variety of impacts over a large geographic scale, including ruptures of oil and natural gas

pipelines and changes in the course of the river, causing flooding and disruption of navigation traffic and water supplies. Federal and state agencies, local communities, and private industry will all be involved in the exercise, which will test a variety of existing plans and force people to work outside of their geographic and professional areas of familiarity. According to Lauder, the SONS exercise will illustrate the need for an early warning monitoring system on the UMR. He noted that the Ohio River has such a system and that the UMR needs one as well.

Dave Hokanson noted that, in addition to the Ohio River, early warning systems also exist on the Susquehanna River, St. Clair River, Washington, D.C., and San Francisco. He also described the Ohio River system in greater detail.

Hokanson then described the UMR efforts to-date in developing an early warning monitoring system (EWMS). In 2002 a scoping group was formed to evaluate the overall feasibility of an EWMS on the Upper Mississippi River, including instrument selection, communication system, funding, and organizational issues. A pilot monitoring station was established at Lock and Dam 15 in 2003. The data is transmitted to the rivergages.com website. However, according to Hokanson, the time has come to make important decisions about the next steps. In particular, the monitoring equipment needs replacement, EPA seed money is nearly exhausted, the evaluation report is complete, and organizational and funding issues limit further progress.

Hokanson outlined both the opportunities and obstacles and identified a variety of considerations, including the following questions:

- What funding could be made available to support capital & operational expenses in the long term
- What is the right “institutional home” for the system?
- What in-kind contributions are needed to operate/leverage funding?
- Is this a “core” UMRBA activity?
- What level of support from UMRBA and its staff is appropriate?
- Is UMRBA the institutional home for the effort? If not, where should it reside?

Hokanson suggested that there are two basic options for UMRBA. It can either end its participation in this work or decide to maintain an ongoing role. If UMRBA chooses to be involved, it must address how to continue to fund the effort and define its specific role. That role could include continuing to provide coordination and facilitation support. However, Hokanson cautioned that, to be productive, a commitment of more than the current .05 FTE level is needed. Alternatively, Hokanson said UMRBA could decide to expand its role and serve as the organizational “home” for the project.

Gretchen Benjamin asked whether the EWM effort would “die” if UMRBA walked away from it. Roger Lauder said he thought it would likely continue, given the high level of interest. However, no one is ready and willing to take leadership at this point in time. He encouraged UMRBA to keep its options open. Dave Hokanson commented that UMRBA is not irreplaceable, but there may be some downtime if UMRBA discontinues its support. He also noted that the utilities are very supportive of UMRBA’s leadership role. Bill Franz said EPA is seeking to establish 3 bio-monitoring sites on the UMR and the University of Minnesota has an NAS grant to look at the Headwaters through Lock and Dam 2. However, he added that there’s no single organization to pull the various efforts together.

Mike Wells said that more information is needed before UMRBA can make a decision about its future role, including the costs. Laurie Martinson commented that it will be important to better understand the scope of the future needs, potential partners, and potential alternative “leaders.” Gary Clark moved and Martin Konrad seconded a motion directing staff to develop options, for consideration at the August 2007 meeting, regarding how UMRBA could move forward with regard to the EWMS project. The motion passed unanimously.

Fish Movement: Passages and Barriers

Overview — Scott Yess of the Fish and Wildlife Service provided an overview of the topic of fish movement, passages, and barriers. He explained that fish move, in order to reproduce, find food, and survive. Movement is triggered by temperature and flow. Yess also described the effect that the lock and dam system has on fish migration, explaining that some passage occurs, but it is restricted to times when the dams are operated at open river conditions. Thus fish passages may be appropriate at some locks. Yess explained that fish barriers are primarily for controlling the movement of exotic species, such as Asian carp. Barriers can include electrical strobe lights, high pressure sodium, bubble curtain, acoustic barrier, or physical barriers. Yess commented that, where Asian carp are already abundant, fish passages may be reasonable. However, where the carp are not yet established (as in the upper river), barriers may be more reasonable.

Chicago Sanitary & Ship Canal — Dan Injerd of Illinois DNR explained the history and current status of the demonstration barrier on the Chicago Sanitary and Ship Canal, linking Lake Michigan and the Illinois River. The barrier was first authorized in 1990, when the concern was movement of the round goby from the Great Lakes to the Illinois River. However, by the time the electrical barrier was turned on in 2002, the concern had changed to the migration of Asian carp from the Illinois River to the Great Lakes.

Injerd said the demonstration barrier has generally been effective, but the end of its design life is approaching. The original cost estimate for a permanent barrier was \$9.1 million. The Great Lakes states are all contributing to the nonfederal share of the construction costs and the State of Illinois has responsibility for operation and maintenance, which is estimated to cost \$500,000 annually. However, efforts are underway to change that requirement and make operation and maintenance a 100 percent federal responsibility. Injerd commented that a single state cannot undertake a project like this alone. It is costly and more appropriately a federal responsibility, given the fact that the river is a federally authorized and maintained system. In addition, there are safety issues involving the Coast Guard.

Lock and Dam 11 Dispersal Barrier — Jay Rendall of the Minnesota DNR described the threat posed by Asian carp and Minnesota DNR's efforts to promote a barrier on the Upper Mississippi River to control their spread. A 2004 feasibility study identified Lock and Dams 11, 14, 15, and 19 as potential sites for barriers. However, some sites are no longer desirable and the options have been narrowed to Lock and Dam 11. According to Rendall, this site would be a good choice because it is upstream of known populations of bighead, black, and silver carp; protects Minnesota, Wisconsin, and some of Iowa and Illinois waters; has no spillway or flooding; and there is low frequency of open gates. Rendall explained that the bio-acoustic fence is the technology that appears to be most appropriate and effective for such a project.

Rendall described the steps Minnesota DNR has taken to promote the barrier and the letters of support from other parties, including Iowa DNR, Wisconsin, Illinois, the U.S. Fish and Wildlife Service, and the Corps of Engineers. Rendall explained that both the Senate and House versions of WRDA include provisions to authorize the Lock and Dam 11 fish barrier. The House bill specifies that the project would be at full federal expense, although it does not specifically identify Asian carp as the target. The Senate bill authorizes the project as a demonstration and indicates that Lock and Dam 11 should be considered as the location.

Lock and Dam 3 Fish Passage— Gretchen Benjamin of Wisconsin DNR explained that the inclusion of fish passage at Lock and Dam 3 is an idea that has been around for 30 years. The Corps of Engineers and partner agencies are currently working on a major rehabilitation of Lock and Dam 3 and are near agreement on plans to correct embankment and navigation safety problems. However, Wisconsin DNR believes that fish passage should also be part of the major rehab project. Although the Corps has said it

does not have authority to include the fish passage, Benjamin cited a 1932 letter from the Secretary of War indicating that fishways would be installed if shown to be necessary.

Benjamin explained Wisconsin DNR's position that the relative merits of fish passage versus barriers for control of invasives need to be judged at each individual structure. However, in general, stopping invasive species entirely is not possible. Therefore, creating the best possible habitat for native species is likely the best approach for enhancing their competitiveness with exotics.

Fish Passage in NESP— Ken Barr of the Corps of Engineers reviewed the recommendations in the 2004 navigation feasibility study regarding fish passage. The 50-year plan recommends fish passage at 14 dam sites, including Lock and Dam 4, 8, 22, and 26 during the 15-year first increment.

Water Quality Update

Dave Hokanson reviewed the purpose of designated uses in the context of the Clean Water Act and how designated uses are currently determined for the UMR. He noted that the challenge on the UMR is not only consistency among the states, but also the appropriateness and effectiveness of the currently assigned uses. Hokanson explained that the UMRBA Water Quality Task Force (WQTF) and Water Quality Executive Committee (WQEC) have been discussing the question "should there be a unique set of designated uses developed for the UMR?" Based on the results of their joint meeting in early May, it appears that they are interested in pursuing development of subcategories of aquatic life use, similar to the approach taken for the Chesapeake Bay. Hokanson explained that the advantages of a Chesapeake Bay approach include better protection of the resource, applying the right criteria at the right time in the right place, an approach that is mutually developed and supported by all states, and strengthening the connection between ecosystem knowledge and water quality programs. However, the challenges include extensive data and research needs, making choices about what resources to protect, and securing long term funding and appropriate staff expertise.

Hokanson also reported on the WQTF consultation regarding the states' 2008 impaired waters lists. Areas of increased consistency include fish consumption advisories, bacterial indicators, and possibly suspended solids. However, Hokanson noted that there are also new challenges and divergent approaches related to aluminum, nutrients, and PFCs.

Holly Stoerker reported that a joint Governors' statement was developed based on the "Water Quality Proposal" approved by UMRBA at its February 2007 meeting. The joint statement has thus far been approved by all Governors, except Minnesota's Governor Pawlenty, whose approval is anticipated shortly.

Stoerker also reported that outreach activities with EPA and Congress are continuing, in an effort to secure funding support for UMRBA's enhanced interstate water quality activities. A number of Congressional visits were made in late February. On March 13, the WQEC and UMRBA staff met with EPA Assistant Administrator for Water Ben Grumbles.

Stoerker presented a list of topics that will be addressed in UMRBA's FY 08 water quality program. She noted that UMRBA's draft FY 08 budget reflects approximately \$90,000 in expenditures for water quality coordination activities and assumes "assessments" of \$17,000 per state to support those efforts. Stoerker also suggested that UMRBA consider adding an additional Water Quality Specialist to staff.

Administrative Issues

Personnel Manual— Holly Stoerker explained that, when UMRBA's Manual of Personnel Practices and Procedures was amended in February 2006, it was an oversight that the amendments regarding

holiday observance were not applied to project employees. To rectify that problem, Martin Konrad moved and Gretchen Benjamin seconded the following motion, which was then unanimously approved:

Amend the second sentence of Section VII of the UMRBA Manual of Personnel Practices and Procedures to read as follows:

“Holiday observance and pay for permanent *and project employees* who normally work less than full time shall be in accordance with the schedule governing Minnesota State employees (Middle Management Association).”

FY 2008 UMRBA Budget — Laurie Martinson moved and Gary Clark seconded a motion to approve the “Status Quo” budget prepared by staff and remain open to future proposed amendments from the Water Quality Executive Committee for expanded water quality activities.

Chair Mike Wells emphasized that the UMRBA Board is supportive of expanding UMRBA’s water quality efforts, but would like additional information regarding specific activities, costs, and revenue sources. Dru Buntin added that prospects for securing additional federal funding are not clear and the sustainability of the \$17,000/state assessment is unknown. Therefore, expanding UMRBA’s water quality program at this point in time would result in deficit spending without a clear understanding of the long term financial implications.

Martinson’s motion was approved unanimously.

Future Meeting Schedule: Holly Stoerker announced the August 2007 quarterly meetings in La Crosse, Wisconsin will involve the following sequence:

- August 20 — UMRBA Board Planning Meeting (afternoon)
- August 21 — UMRBA Quarterly Meeting
- August 22 — NECC/ECC Meeting
- August 23 — EMP Coordinating Committee Meeting

The dates and locations for other future meetings include:

- November 13-15, 2007 in St. Paul, Minnesota, with the UMRBA meeting on the first day. (A meeting of the UMRBA Water Quality Executive Committee will also take place during this time period.)
- February 19-22, 2007 in St. Louis, Missouri, with the UMRBA meeting on the first day.

With no further business, the meeting was adjourned at 3:10 p.m.