

**Minutes of the Fall 2006 meeting of the
UMRCC Water Quality Technical Section**

October 31, 2006

Chair: John Olson, Iowa Department of Natural Resources

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The fall meeting of the UMRCC Water Quality Technical Section (WQTS) was held on October 5 and 6 at the Lucille A. Carver Mississippi Riverside Environmental Research Station (LACMRERS) near Muscatine, IA. The following persons attended the meeting.

1.	Dave Bierl	U.S. ACE, Rock Island
2.	Dave Bierman	Iowa DNR/LTRMP, Bellevue
3.	Rich Burdge	Missouri DNR
4.	Rob Burdis	Minnesota DNR/LTRMP, Lake City, MN
5.	Thad Cook	Illinois Natural History Survey, IRBS
6.	Eric Cummings	Wisconsin DNR/LTRMP
7.	Cindy DiStefano	Missouri Department of Conservation
8.	Terry Dukerschein	Wisconsin DNR/LTRMP
9.	Jim Fischer	Wisconsin DNR, Lacrosse
10.	Bill Franz	U.S. EPA, Region 5, Chicago
11.	Shawn Giblin	Wisconsin DNR
12.	Lori Gittinger	Illinois Natural History Survey
13.	Tex Hawkins	USFWS, Winona. UMR / NWR
14.	Kraig Hoff	Wisconsin DNR/LTRMP
15.	Louise Hotka	Minnesota Pollution Control Agency
16.	Jeff Houser	Upper Mississippi Environmental Science Center/USGS, La Crosse
17.	Ben Lubinski	Illinois Natural History Survey
18.	Tatsuaki Nakato	LACMRERS, University of Iowa
19.	John Olson	Iowa DNR, Des Moines
20.	Dave Ostendorf	Missouri DOC/LTRMP, Cape Girardeau
21.	Mark Pearson	U.S. EPA, ORD, Duluth, MN
22.	Jim Rogala	Upper Mississippi Environmental Science Center/USGS, La Crosse
23.	Kevin Slattery	U.S. ACE, St. Louis
24.	John Sullivan	Wisconsin DNR, La Crosse
25.	Scott Yess	USFWS, La Crosse
26.	Shirley Yuan	USGS, La Crosse

All five UMR state were represented at the meeting. Water quality agencies with Clean Water Act reporting responsibilities were represented by four of the five states (IA, MN, MO, and WI).

State/Agency updates:

Iowa DNR, John Olson

Iowa's 2004 Section 303(d) list: Iowa's final 2004 303(d) list was received from EPA Region 7 in June 2006; EPA's review took approximately a year. About 20 waters were added to what Iowa had proposed. Most of the add-backs were small streams assessed with biological data (fish &/or macroinvertebrates). The total number of waters on Iowa's 303(d) list was 225 (about 25% of the total number of waterbodies assessed); impairments on the Iowa reach of the UMR did not change: arsenic-related drinking water impacts at Ft. Madison, Keokuk, and Davenport and the bacterial slime problem downriver from Clinton. My progress on Iowa's 2006 list has been slow; Iowa may have a draft 2006 list out by the end of the year.

Fish Tissue Monitoring: As part of the U.S. EPA's Regional Ambient Fish Tissue (RAFT) monitoring program, fish samples were taken from eight locations on the Iowa reach of the UMR in 2006: one location near Lansing, three locations near Dubuque, two near Davenport, one at Muscatine, and one at Keokuk. As opposed to past years, most of Iowa's 2006 fish contaminant monitoring is follow-up monitoring related to potential consumption advisories due to mercury (Dubuque and Muscatine) or PCBs (Dubuque, Davenport and Keokuk). This monitoring will likely result in at least one consumption advisory for the Iowa reach of the UMR (one meal/week advisory).

Upper Mississippi River Basin Association WQ Task Force: Iowa DNR continues to participate in the WQ Task Force. The WQTF is currently working on a project to develop sediment-related criteria for the UMR; a MOU has been developed committing the five UMR states and the two EPA regions to address this issue; this MOU is being circulated for signatures. The other major development with UMRBA's water quality efforts is the creation of a "Water Quality Executive Committee" composed of water administrators of the five UMR states [Chuck Corell (IA), Marcia Willhite (IL), Gaylen Reetz (MN), Todd Ambs (WI), and Rob Morrison (MO)].

Missouri River Interstate Water Quality Workshop: A workshop was held in Omaha on May 2-3, 2006, for Missouri River basin states to discuss issues of water quality monitoring, Clean Water Act (305(b)/303(d)) assessments and listings, and creation of a WQ forum for the Missouri River. The meeting was organized by EPA Regions 7 and 8 with assistance from the Council of State Governments. Staff from several states (including Iowa) and from EPA were tasked with moving this effort forward. I am, however, not aware of any follow-up activities after this workshop.

Wisconsin DNR, John Sullivan: Wisconsin has submitted its 2006 Impaired Waters list to EPA. Although our Mississippi River Team made recommendations for including sediment and nutrient related impairments on selected reaches of the river, these were not considered for 2006. Wisconsin is now working with Minnesota and Iowa to coordinate our listing efforts and plan to add sediment and nutrient related (pH/DO exceedances) in our 2008 listing. Wisconsin is cooperating with USGS (Jeff Houser, UMESC) on primary production studies of selected aquatic areas in Pool 8. Wisconsin's efforts were directed at monitoring the Stoddard backwater area, a site of a large EMP habitat project. Continuous measurements of DO, temperature, surface and underwater light, wind speed and direction were recorded at 15-minute intervals. Sediment traps were also deployed to estimate gross sedimentation rates. Sediment trap contaminant data at Lock and Dam 3 and 4 is ongoing. John Sullivan is preparing a summary report of this monitoring effort. Several reports were made of isolated fish kills in backwater areas along Wisconsin's border this summer. The fish kills were likely attributable to low DO associated with excessive vegetation and low flows.

Wisconsin DNR / LTRMP, La Crosse: Jim Fischer: Jim is now on the EMP A-Team. A proposal has been submitted by the A-team to restore some of the LTRMP fixed water quality monitoring sites in the upper LTRMP pools (4 and 8) and tributaries, with monitoring to be conducted every two weeks throughout the summer. It is intended to restore some of the monitoring that was cut due to budget during the re-design of 2004. The sites would be implemented only during years when there is adequate funding above the base level (Minimum Sustainable Program or MSP). Several of the EMPCC partners feel that these sites provide important information for River management and are used by agencies in 305b assessments and the 303d listing process.

The Fish and Wildlife Work Group is putting together a white paper describing effects of recreational boating on the River environment. It will be based on work done in the early 1990's in upper Pool 4 that evaluated the effects of boat wakes on shoreline erosion rates and water quality. The original work can be viewed at http://www.dnr.state.mn.us/aboutdnr/reports/impacts_mississippi.html. The information may be a useful reference during the Lake Pepin TMDL process.

Missouri Dept. of Conservation, Cindy DiStefano: MDC recently received fish tissue contaminant results for fish collected during 2005. The information has been forwarded to the Missouri Department of Health and Senior Services (DHSS) and they will issue the 2007 Fish Consumption Advisory using this data and data collected by the Missouri Department of Natural Resources. The Advisory is targeted for release on March 1, 2007.

U.S. ACE, Rock Island, Dave Bierl:

EMP HREP Monitoring: Performance evaluation monitoring was performed during the summer at the following HREPs: Pool 11 Islands (Sunfish Lake and Mud Lake), Spring

Lake, Potter's Marsh, Andalusia Refuge, Big Timber and Cottonwood Island. The extent of monitoring this winter will depend on the availability of funds. Performance evaluation reports for the Cottonwood Island and Big Timber HREPS are currently being prepared.

Transparency Tube Measurements at District Locks: Transparency tube measurements continue to be taken at District L/Ds. The frequency of measurements is dependant on lock personnel availability to take the samples. Ideally, measurements will be taken daily (Monday through Friday) from April through October and less frequently during the remainder of the year. The data are now available to the public and can be viewed on the "rivergages" website (<http://rivergages.com>).

Pool 18 Drawdown Study: As part of the Navigation and Ecosystem Sustainability Program (NESP), the Rock Island District is gearing up to perform a soil penetration study in anticipation of a drawdown in Pool 18. A soil penetrometer is on loan from LTRMP. The primary objective of the study will be to determine the effects of a drawdown on sediment consolidation.

ADCP Discharge and Velocity Measurements: As part of the Navigation and Ecosystem Sustainability Program (NESP), discharge and velocity measurements will be taken along several transects in the vicinity of L/D 21 and the LaGrange L/D for the purpose of calibrating hydraulic models that will assist with the design of lock modifications.

Missouri DNR, Rich Burdge: Missouri placed its proposed 2004-6 303(d) list on public notice on Oct. 11. It is available for public review, along with supporting documents, at <http://www.dnr.mo.gov/env/wpp/waterquality/303d.htm>. The Mississippi River is being proposed for delisting for PCBs and chlordane due to the lack of any fish tissue data showing high levels (>0.1 mg/kg sum of chlordane isomers, >2.0 mg/kg total PCB) in fish tissue). Missouri has no nutrient-related criteria and no biological or sediment monitoring protocols applicable to great rivers. While recent data shows that contaminants in fish tissue from the Mississippi River do not currently reach levels of concern, mercury levels in sturgeon eggs may, and the need to assess such data may be addressed in the next revision of Missouri's 303(d) listing methodology. DNR monitoring of water quality and fish tissue contaminants in the Mississippi is continuing much as in previous years.

Minnesota PCA, Louis Hotka: Minnesota PCA is in early stages of planning for the 2008 Clean Water Act Section 303(d) listing cycle. We rely heavily on Pools 4 and 8 LTRMP fixed station data, with some reference to the SRS dataset, for the Section 303(d) listing assessments for the Minnesota reach of the UMR. The participation of John Sullivan, WI-DNR, along with LTRMP staff including Rob Burdis in Minnesota, in the preliminary assessment review discussions each cycle has been very valuable to the quality of our process. February-April 2007 will be the timeframe for the reviews, and we will set up a meeting devoted to the Mississippi borders waters.

Minnesota PCA, Justin Watkins (supplied via e-mail of October 5, 2006): Justin provided a recent fact sheet for the TMDL for the Lower Vermillion River in southeast Minnesota. MPCA has contracted with Tetra Tech to do the majority of the work with a completion date for the TMDL of mid-2007. The following is the text portion of this fact sheet:

The Vermillion River from Hastings, Minnesota, to the confluence with the Mississippi River, referred to as the Lower Vermillion River (LVR), is included on Minnesota's Clean Water Act Section 303(d) list of impaired waters because of turbidity. Water quality monitoring of the LVR has shown that its turbidity levels frequently exceed the State standard of 25 nephelometric turbidity units (NTU). As required by the Clean Water Act, the Minnesota Pollution Control Agency (MPCA) has recently initiated development of a total maximum daily load (TMDL) to address the turbidity impairment. The purpose of developing a TMDL is to identify the pollutant loading that a waterbody can receive and still achieve water quality standards. The TMDL process identifies the maximum allowable load; allocates portions of the maximum load to all sources; identifies the necessary controls, which may be implemented voluntarily or through regulatory means; and describes a monitoring plan and associated corrective feedback loop to ensure that the uses or the waterbody are fully supported.

Turbidity is a measure of water clarity. When turbidity is elevated, the water becomes cloudy and visibility is reduced. In addition to being unaesthetic, elevated turbidity has adverse impacts on aquatic life. For example, turbidity can reduce the ability of sight-feeding gamefish to find their prey and reduces the vigor of the submerged aquatic vegetation that forms the basis of a healthy ecosystem in most Minnesota rivers. Elevated turbidity can be caused by a number of factors, including loads of fine sediment, growth of microscopic floating algae exacerbated by nutrient loads, and dissolved organic material.

The goals of the LVR Watershed Turbidity TMDL Project are to describe the nature and extent of turbidity in the highly complicated setting of the LVR, determine turbidity source load allocations that consider major sediment and nutrient sources, and produce a final report that expresses the complicated turbidity dynamics in terms of an “allocation” among sources and recommendations for corrective actions. Because of the complexities of the system, the project is being implemented in three phases:

- Phase I: Data Gathering and Conceptual Model Development (2003-2004)
- Phase II: Sampling and Model Development (2006-2007)
- Phase III: Model Refinement and TMDL Development (2006-2007)

The MPCA has contracted Tetra Tech, Inc. to construct the Lower Vermillion River TMDL. For more information, or for an update regarding the status of the project, please contact Justin Watkins of the MPCA: 507.281.7763

Minnesota DNR/LTRMP, Rob Burdis: LTRMP data are being used for the Lake Pepin TMDL; consequently, there is much regional support for continuing this monitoring. The “minimum sustainable program”, under which LTRMP has been operating recently, will end in a few years, and the program will need support.

U.S. EPA, Region , Bill Franz: Upcoming conferences include the following. (1) A USEPA workshop on developing suspended and bedded sediment water quality criteria will be held on November 1-2, 2006 in Washington, DC. This workshop is organized around the concepts presented in EPA's 2006 framework document on suspended and bedded sediments (SABs). EPA has funds available to cover all expenses for attendees. (2) A symposium entitled “Sources, Transport, and Fate of Nutrients in the Mississippi and Atchafalaya River Basins” will be held in Minneapolis from November 7-9. This symposium is the fourth in a series of symposia sponsored by the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force. The symposia are part of the reassessment of the Action Plan for Reducing, Controlling, and Mitigating Hypoxia in the Northern Gulf of Mexico. Several U.S. cities are utilizing a water monitoring device that employs juvenile bluegill to warn of toxics, such as could be introduced by a terrorist attack, in surface waters used as a source of public drinking water supplies. This device, developed by the U.S. Army and a private company, is called the “Intelligent Aquatic Biomonitoring System”. This device, which ranges in cost from \$45,000 to \$110,000, analyzes behavior of eight captive bluegill to identify signs of stress that would indicate the presence of toxics in the water. U.S. EPA/ORD (Cincinnati) is looking at using freshwater mussels instead of bluegill to monitor raw water source drinking water supplies in the UMR. The cost of a system utilizing freshwater mussels instead of bluegill is believed to be considerably less expensive (on the order of \$10,000).

USFWS, Winona, MN, Tex Hawkins: The Final Environmental Impact Statement / Comprehensive Conservation Plan (EIS/CCP) for the Upper Mississippi River National Wildlife Refuge is available at <http://www.fws.gov/midwest/planning/uppermiss/>. The following is the abstract from this large (700+ page) document:

The U.S. Fish and Wildlife Service is proposing to adopt and implement a Comprehensive Conservation Plan (CCP) for the Upper Mississippi River National Wildlife and Fish Refuge. The Refuge was established by Congress in 1924 to provide a

refuge and breeding ground for migratory birds, fish, other wildlife, and plants. The Refuge encompasses approximately 240,000 acres and 261 river miles in four states. The CCP will guide the management and administration of the Refuge for 15 years and help ensure that it meets the purposes for which established and contributes to the mission of the National Wildlife Refuge System. Five alternatives for future management are described: A) no action or current direction, B) wildlife focus, C) public use focus, D) wildlife and integrated public use focus, and E) modified wildlife and public use focus. The preferred alternative is Alternative E. This Final Environmental Impact Statement considers the physical, biological, and socioeconomic effects that the five alternatives would have in terms of the issues and concerns identified during the planning process.

The EIS/CCP recommends that refuge be nominated as a RAMSAR “wetland of international importance”. The following is taken from the RAMSAR web site (<http://www.ramsar.org/>): The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. There are presently 153 Contracting Parties to the Convention, with 1629 wetland sites, totaling 145.6 million hectares, designated for inclusion in the Ramsar List of Wetlands of International Importance.

Coordinator’s Report, Scott Yess, USFWS, La Crosse:

The 2006 “Directory of Resource Managers Along the Upper Mississippi River” is now available. This document will be placed at the UMRCC web site and will be updated as time permits. The UMRCC library has been moved from UWFWS in Rock Island and is now at USFWS in La Crosse (at 555 Lester Avenue). Tom Boland (Iowa DNR Fisheries Biologist; now retired) has completed preparation of the 2005 “UMRCC Proceedings” document; Tom is now working on completion of other proceedings documents from 2001-2004. These reports will be distributed on CD. UMRCC members are encouraged to send the Coordinator photos of the UMR and UMR activities for an updating of UMRCC outreach materials and web page. Upcoming events include (1) the UMRCC Executive Board Meeting on October 17th at the USFWS field office in Rock Island and (2) the conference *Riverine Wetlands: Connections, Corridors and Catchments* to be held on February 1 & 2 in La Crosse; this conference is sponsored by the Wisconsin Wetlands Association (see <http://www.wiscwetlands.org/2007forum.htm>). The 2007 UMRCC annual meeting will be held from March 20-22 at the Treasure Island Resort & Casino near Red Wing, MN.

Presentations, Thursday afternoon:

Great Rivers EMAP update / discussion: Mark Pearson, U.S. EPA, Duluth: Selected results from the Great Rivers Ecosystem-EMAP sampling were presented, with a focus on comparisons between the Missouri, Ohio, and Upper Mississippi rivers. The U.S. Environmental Protection Agency, Mid-Continent Ecology Division will host a workshop from October 24-26 in Duluth that will focus on developing an analytical framework for data that supports bioassessment of the Ohio, Upper Mississippi, and Missouri rivers. The workshop is intended to get into the details of metric calculations, reference conditions, and indicators. Information on the EPA “national assessment” for rivers was also presented and the relationship between the GRE-EMAP project and the national assessment was discussed.

Web-available continuous water quality monitoring data from Shelbyville and Carlyle lakes in Illinois. Kevin Slattery, USACOE, St. Louis. Problems with low levels of dissolved oxygen

during low-flow releases from Corps reservoirs (Shelbyville and Carlyle), and the associated fish kills, motivated a different approach to monitoring. A system was developed to remotely monitor levels of dissolved oxygen in reservoir outflows and transmit the data to a web site. Through an examination of these data, adjustments in reservoir outflows can be made to avoid periods of critically low dissolved oxygen. Problems with data were discussed and hypotheses were developed regarding the causes of unusual patterns in the DO data (e.g., weather-related changes in levels of dissolved oxygen and fouling of DO-probe sensors).

Progress report on the UMRBA Water Quality Task Force project to develop sediment-related water quality criteria for the Upper Mississippi River: prepared by Dave

Hokanson, UMRBA; presented by John Olson, Iowa DNR: The UMRBA Water Quality Task Force project to develop sediment-related water quality criteria for the UMR has progressed through the following stages: (1) preparation of a background report in October 2005, (2) a workshop held in November 2005 to get expert input on sedimentation, (3) preparation of an options paper in January 2006, a consultation meeting was held in February 2006, (4) preparation of an issue paper in August/September 2006 (the draft of this paper is currently being reviewed), and (5) preparation of an MOU between states and EPA Regions 5 and 7 to commit to continued work on sediment-related criteria. Although originally planned as a two-year project, the Task Force will expand the time frame as necessary. Over the next year, plans are to develop a guidance document for assessing impairments due to suspended sediments in upper UMR (based largely on work of the UMRCC Water Quality Technical Section (specifically, John Sullivan, Wisconsin DNR)) and to prepare a “white paper” to further address issues related to sedimentation (i.e., sediment accumulation). Over the long-term, activities include development of research needs list as well as periodic review, improvement, and possible expansion of the guidance document. The Task Force recommends continued investigation and research on sediment-related impacts. Issues and questions specific to the “issue paper” currently under review include the following:

- (1) Will protecting the aquatic life use protect from sediment impacts protect other uses (such as primary contact recreation uses)?
- (2) What are the linkages between bedded sediments and impacts to aquatic life of the UMR; that is, do bedded-sediments adversely impact aquatic life exist in the UMR?
- (3) Once these linkages are established, how do we measure (quantify) the impacts?
- (4) What is the cause of sediment accumulation in the UMR backwaters (i.e., is accumulation caused by erosion from the UMR watershed (a “pollutant” impact), by developing the UMR for navigation (a “pollution” impact), or a combination of both types of impact?);
- (5) What are realistic expectations for the UMRS backwaters given its development & maintenance for navigation?

Update on research on freshwater mussels at LACMRERS: Tatsuaki Nakato, University of

Iowa: Dr. Nakato presented his recent research on freshwater mussels, including mussel species harvested by muskrats and mussel displays to attract host fish. The UMRCC Mussel Coordination Team (MCT) may consider placing juvenile Higgins Eye mussels in the Mississippi River near Fairport next fall. Preliminary mussel surveys in September 2006 indicate that there are as many as seventeen freshwater different species in the proposed site. There were very few

zebra mussels attached to live mussels. Nakato's research group is interested in monitoring the potential mussel propagation site upon release of Higgins Eye mussels.

Presentations, Friday morning:

Ecosystem restoration projects and Clean Water Act programs: exploring policy and practice interfaces. Prepared by Dave Hokanson, UMRBA; presented by John Olson, Iowa DNR: Historically, ecosystem restoration projects conducted on the UMR as part of the Environmental Management Program (EMP) have not been part of state water quality reporting and impaired waters listing as required by Sections 305(b) and 303(d) of the federal Clean Water Act. In a June 2006 letter to USACE Districts, U.S. EPA Region 5 stated a desire to *"begin a dialogue to determine how Habitat Restoration and Enhancement Projects (HREPs), or those projects to be implemented under NESP, could help implement a TMDL for a waterbody and where possible could help prevent additional impacts that might contribute to impairments of the Mississippi and Illinois Rivers."* There are few sediment-related impairments currently listed by the States under the CWA. However, much of the ecosystem restoration focus is on sediment-related impacts. How can this apparent discrepancy be reconciled? The primary question is this: what are the mutually beneficial connections that can be made between Clean Water Act programs and ecosystem restoration projects on the Upper Mississippi River? Issues and questions to be addressed include (1) differences in scale of TMDLs (large-scale) and restoration projects (relatively small scale), (2) are the objectives of the programs compatible enough to allow for mutual benefit?; (3) is any potential connection limited to sediment-related issues or are there other pollutants that could be jointly addressed?; and (4) is there a link to States' anti-degradation policies under the CWA?. Although no decisions have been made as yet, UMRBA is proposing to facilitate meetings on the relationships between ecosystem restoration projects and Clean Water Act programs. In order to begin this effort, however, two questions need to be answered: (1) Is there enough potential connection between the programs to justify the effort and (2) is there an interest by the partners (States, USACE, US EPA) in participating in this effort?

Dye dispersion and fish movement in response to increased water flow at Spring Lake, Savanna, Illinois: Dave Bierl, USACOE. Rock Island: Dye dispersion and fish movement were monitored during 2005 by USACE, Rock Island District personnel following a controlled increase in flow to Spring Lake, a backwater of the Upper Mississippi River near Savanna, Illinois. A gated inlet that allows for inflow of oxygenated water during winter months was constructed in the perimeter levee of the lake in 1999 as part of an environmental enhancement project. Following an increase in gate opening from 20 cm to 91 cm during January 2005, Rhodamine WT dye was dispensed in the inlet structure and tracked over a period of 13 days as it dispersed throughout the lake. A fluorometer was used to determine if the dye was present in water samples. An attempt was made to detect the dye in situ using multiparameter water quality sondes fitted with a chlorophyll probe; however, the detection limit was found to be too high to be useful. By day six, the dye traveled 2,375 m for an average velocity of 0.46 cm/sec. This was more than twice the distance (1,125 m) and velocity (0.22 cm/sec) measured in a similar study performed in 2002 utilizing a 25 cm gate opening.

In addition to the dye monitoring, 20 centrarchids fitted with radio transmitters by Iowa DNR personnel were tracked during three events over an 11-day period. Concerns that an increase in velocity might "flush" the fish from the lake were not realized, as most radio-tagged fish traveled only a short distance from the area where they were captured and released.

Update on UMRCC/EPA Water Quality database for the UMR and its tributaries: John Sullivan, WDNR: An updated database has been posted on EPA's Web site (http://www.epa.gov/r5water/umr_wq_assess.htm). The data includes over 15,000 records from federal, state and municipal entities that monitor surface water quality along the river. This update includes drinking water intake monitoring along the main channel and tributary sampling conducted near their confluences with the Mississippi. Most data are for the 2000 to 2004 period though some early records were obtained for a few sites that captured sampling efforts from the mid 1960s and 70s. An attempt was made to remove obvious outliers (extremely high values) or errors (pHs > 14 etc.) that were noted in a cursory examination of the data. John provided example trend/change plots of some sites that showed noticeable changes in water quality over forty years. For example, chloride and nitrite+nitrate-N concentrations have increased at Lock Dam 11 but TSS appears to have decreased when comparing data collected in the 60s & 70s versus the early 2000s.

Selection of new chair:

John Olson (Iowa DNR) will continue to serve as chair through the Spring 2007 meeting. At that meeting, the chair will be transferred to either Missouri or Minnesota.

Closing:

The next meeting of the WQTS will be on March 20, 2007 at the Treasure Island Resort & Casino near Red Wing, MN, in conjunction with the UMRCC annual meeting from March 20-22.