

Waterways

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Early computations at MNDOT show...

Good news on river in 2009

Although not back to pre-ethanol levels, 2009 Mississippi River barge traffic into and out of Minnesota was up from the previous year. Dick Lambert, director of ports and waterways for the Minnesota Department of Transportation told *Waterways* he had yet to receive tonnage figures from a few terminals in early January, but was prepared to offer a “gestimate” based on the data he had.

“Estimated northbound tonnage for Minnesota – that’s Winona, Red Wing, the Twin Cities, Savage and Minneapolis – was about 4.5 million tons,” Lambert says. “Last year it was 4.8, but I’m guessing that a good chunk of that drop is in aggregates because the demand for cement is down a bit.”

“Southbound we’re showing about 6.4 million tons and of that, 4.9 million tons is grain,” Lambert adds. “That grain figure has improved 84 percent over last year.”

Almost 11 million tons

Figures show that outbound grain shipments in 2009 totaled 4.9 million tons, well up from 2008 grain shipments of 2.7 million tons. Lambert says the 2007 grain number was 5.6 million tons, which was still well short of the days before much of the local corn crop started going to ethanol plants.

“Total tonnage north- and south-bound was 10 point 98 million tons in 2009, compared to 8 point 2 million tons in 2008,” Lambert says.



(Above: With bulkheads in place, work will be done on gates and walls in three Upper Mississippi locks)

“Looking back over the years, in the nineties were up around 16 million tons and a lot of that was grain. But with a lot of corn going into ethanol production, we’ve lost a lot of that.”

Work started at three locks

The Upper Mississippi is currently closed to commercial traffic and that closure plus some federal stimulus dollars have crews busy at three St. Paul District locks and dams. Crews at Lock and Dam 6, near Trempealeu, Wis., Lock and Dam 7, near LaCrescent, Minn., and Lock and Dam 5, north of

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From the Executive Director...

As we enter the second decade of the 21st century, commercial navigation faces a dizzying array of changes that suggest both challenge and opportunity. A few are discussed in this column.

Halt Spread of Carp – The Ante’s Been Upped

Occupying center stage in the Great Lakes region is the explosive issue of whether or not to close a physical connection between Lake Michigan and the Mississippi river basin.

As published by the Associated Press, on December 21st, Michigan’s attorney general asked the U.S. Supreme Court to sever a century-old connection between the Great Lakes and the Mississippi River system to prevent Asian carp from invading the lakes and endangering the environment and their \$7 billion fishery. New York, Wisconsin, Minnesota and Ohio also support this request; Illinois’ attorney general’s office is reviewing the suit. The Metropolitan Water Reclamation District of Greater Chicago is on record as saying that closing the canal would not prevent the carp from migrating.

In the latest development, a Wisconsin paper announced on January 6 that U.S. Solicitor General Kagan, arguing in her own memo to the Supreme Court, has sided with Illinois.

According to Corps of Engineers data, the amount of traffic handled at the Thomas J. Obrien lock on the Calumet River in CY 2008 was 6.8 million tons. If forced to trucks, this would equate to 745 trucks each day, every day, producing a different, yet menacing version of environmental and economic consequences.

More Electronics for the Wheelhouse

Sales of E-readers, the mini-computer sized reading devices are booming. According to the *Wall Street Journal* global sales of these LCD-screen gadgets are expected to surge to 12 million units this year from five million last year. Using Sony’s top rated version selling for \$270 as an indicator, this industry has a market value in excess of \$3.2 billion; not a bad surge for something largely unheard of until some 20 months ago.

Thanks to a \$7.2 billion portion of the federal stimulus package approved last spring devoted to increasing broadband access, it is anyone’s guess as to

how many e-readers or other nascent digital devices will find their way into industry or commercial transportation.

Agriculture, Corn and Cellulosic Ethanol

Facing issues including overproduction, price volatility and consumer resistance, corn ethanol faces yet another threat, this time from cellulosic-ethanol. The cellulosic version, made out of switch grass and other plant fibers, including corn cobs, faces hurdles such as construction financing and carbon footprint issues.

A recent article in the *Wall Street Journal* quotes Jim McMillan of the U.S. Department of Energy as saying that slow progress to put a price on carbon, such as through a cap-and-trade program, has stalled investors.

In spite of the Department of Energy’s commitment of \$1.3 billion for bio-refinery projects, tight credit markets have made it difficult to draw investors. “They all want to be the first to finance the second project, they won’t finance the first”, said an executive of BlueFire Ethanol Fuels.

Separately, in a *StarTribune* article of January 4, 2010, stating that “corn ethanol has been the best thing that has happened to the farmer since the invention of the combine,” the CEO of Fagen Inc, a \$2.2 billion builder of ethanol projects across the U.S. said “It all came to a screeching halt when our friends on Wall Street manipulated the commodity market.”

In a related item, at their December 22 meeting the United Soybean Board (USB) announced a new business model for its international marketing program. As posted on Midwest Shippers Association web site, animal agriculture continues to be the largest user of soy. The USB funding efforts to help export more U.S. meat is an effort to restore profitability; “the U.S. soybean farmers need the animal agriculture sector to survive”, said Phil Bradshaw, chairman-elect of USB.

With corn and soybeans accounting for a substantial portion of barge grain movements, any changes to their marketing programs will have a noticeable impact on barge volumes.

A New Home for Carbon Dioxide?

As published by Public Radio International, a project in Iceland seeks to develop a CO2 impounding

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Winona, Minn., have dewatered all the structures and are performing once every 20 years maintenance. At 6 and 7 the workers will cut bulkhead recesses and do other needed maintenance on gates and walls. At Lock and Dam 5, the work will repair the concrete structure and repair or replace tainter valve guides, bubbler systems and staff gauges. The entrance road to the facility is also closed for work.

All work must be done by the scheduled mid-March opening of the river shipping system.

New push on the Missouri

On a related note, with the return of higher water levels to the Missouri River, the Missouri Department of Transportation, and a consortium of other governmental groups and commercial groups are pushing for a return of higher volumes of barge traffic to the navigable portions of that river.

MODOT plans to use \$900,000 in promised federal stimulus dollars for a market study to determine how best to return traffic to the river. The department says the shipping season on the Missouri will likely run its full course this year and would like to see the return of energy efficient river traffic by 2014, the year that the Panama Canal will double its capacity.

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technology to convert that key greenhouse gas into a solid.

Using Iceland's omnipresent basalt as a storage medium, a mixture of CO₂ and water is piped some 1900 feet down tubes into the porous basalt. "That will seep into the basaltic rock where it will react with the minerals in the rock and we are aiming at forming carbonates – carbonate minerals – where it will be fixed. It will be there as a mineral not as a gas", says an official of Reykjavik Energy's Innovations Department. While the CO₂ solution has not yet been proven, knowing how the basalt reaction works in the real world is only a part of the puzzle. Bigger questions are how to minimize the large amounts of water needed for the process as well as the possible seismic and ecological impacts of altering subsurface

rock structures.

As stated in the article, sampling tubes will be placed about 600 feet downstream from the injection area to analyze groundwater. Scientists hope to find out how much CO₂ has bonded with the rock; how much new rock is being produced and how fast the reaction is taking place.

According to Gordon Brown, a geology professor at Stanford University, this is an old problem "and it's exciting to me that finally we're starting to actually do things that might lead to some solution."

Manufacturing & Economy are Growing

A Manufacturing Report covering December 2009 released last week by the Institute for Supply Management (ISM), contained interesting and telltale information.

Manufacturing new orders have grown 5% over the last 6 months.

Production has grown 2% over the last 7 months.

Employment has grown 1% over the last 3 months.

Supplier deliveries to manufacturing customers is slowing, but still showing a 1% improvement over the last 7 months.

Manufacturing inventories have been contracting for the last 44 months.

Prices have been increasing for the past 6 months.

Exports have slowly grown whereas imports have grown faster over the last 6 and 4 months, respectively.

*Chemical suppliers have lowered their forecast for 2010 because of tight capital.

*Nonmetallic mineral producers see a rebound for consumer business.

*Auto manufacturing remains strong.

*Electrical and appliance production is below what economic indicators would suggest.

*Primary metals business remains steady and strong.

Summarizing, the nation's supply executives found that economic activity in the manufacturing sector expanded in December for the 5th consecutive month and the overall economy grew for the 8th consecutive month.

That is truly good news for the start of a new year.