manufacturing plants are being developed, the movement of chemicals is increasing, including dry and liquid fertilizer and caustic soda.

The lower section of the Columbia between Portland/Vancouver and the mouth at the Pacific Ocean is a deep-draft river. There is a large volume of log rafts moving on this section. A raft is usually 800 feet long by 60 feet wide, the equivalent of about 80 truckloads. The logs are stored in rafts like floating warehouses until they are ready to be cut or shipped overseas.

One development occurring on the lower Columbia River is more coastwise barging in barges measuring up to 400 feet long by 100 feet wide with drafts of 22-23 feet. Woodchips are moving from coastal locations on the ocean and then up the river to pulp and paper plants. Containers are also moving on these barges.

While the ideas presented for barge-lift systems on the middle section of the Columbia are interesting, there is a question of whether they are economically competitive. We do not think there is the volume of traffic, and, from a rate standpoint, they would not be competitive.

CURRENT DELIBERATIONS AND RECOMMENDATIONS OF THE INLAND WATERWAYS USERS BOARD

BY
PETER J. BRIX
Inland Waterways Users Board

The Water Resources Development Act of 1986 (PL 99-662) was a historic event for the inland waterways in several ways:

1) The log jam of ten years duration which had stopped construction of major inland waterway projects was broken when seven major projects were approved.

2) The Inland Waterways Users Board (IWUB) was established to be composed of eleven members selected by the Secretary of the Army.

3) The fuel tax on vessels operating on the inland waterways was increased from ten to twenty cents per gallon.

The creation of the IWUB is an extension of the user pay/user say philosophy. PL 99-662 leaves great latitude in the extent and geographical scope of recommendations which the Board may make. The Board can limit itself to reviewing Corps of Engineers investment decisions or it may review investment decisions and the implementation process. The Board looks at the national interest without being parochial. Our role is to look at problems of the inland waterways and to make recommendations for future policies that are best in our independent judgement. The Board is not involved in lobbying for or against projects.

The membership of the Board, seven carriers and four shippers, reflects commodity and geographic diversity and a balance between carriers and shippers. Such diversity will help reflect national priorities and needs throughout the system.

The Board was established in late spring of 1987 and first met on July 15, 1987. The Board has (1) encouraged the Corp to expedite the study, design, and construction cycle; (2) requested an inventory of all inland waterway projects in addition to the 27 waterways that come under the current fuel tax; (3) requested a detailed Trust Fund cash flow projection; (4) requested User Tax payment verifications; and (5) requested an evaluation of the waterborne commerce statistics collection and analysis system.

Due to the Board's formation at the tail end of the budgeting process, it was difficult to provide detailed input on the Corps FY 1989 budget. Therefore the Board made general priority recommendations based on information which it had.

At the September 28th meeting, the Board chose to assign various projects to three separate categories, representing different levels of priority. Included in the categorization were construction projects, major rehabilitation projects, projects in various stages of preconstruction engineering and design, and navigation planning studies. The Board established the three categories as follows: Category 1 was for those projects and studies which the Board felt should be accelerated to the extent possible within existing Corps capabilities, or where possible, for which Corps capabilities could be increased consistent with overall Corps responsibilities. Category 2 was for projects and studies whose current schedule of completion seemed consistent with scheduled Corps capabilities, and which the Board felt should proceed as planned. Category 3 was for projects and studies for which the board felt either: (1) that there was not sufficient information regarding project or study justification to enable it to make a priority recommendation, and thus Board action on such projects or studies should be deferred until additional information was provided, or (2) that the information available to the Board justified a recommendation that the project or study be terminated or delayed. Such delays may come when limited funding is available.

While project justification is beyond the interests of the Board, the Board is interested in the needs of the waterways that carry commerce now and the priorities for that system. The credibility of the Board requires that we identify low priority projects as well as high priority.

The Board has begun an in depth analysis of the Inland Waterways Trust Fund. Work has been initiated to determine if the trust fund is receiving all of the taxes which are due. We do not believe that the reporting is complete and we are seeking ways in which to assist the IRS.

The Trust Fund has a current balance of approximately $300 million and is receiving approximately $50 million per year from user taxes. This figure is projected to escalate to over $100 million per year in the 1990's. In spite of the increased funding, our projections show a declining balance in the trust fund. In the year 2000, the fund balance is projected to be (1) $265 million with only scheduled construction, (2) breakeven with rehabilitation projects and (3) negative with additional construction. Lock and dam construction expenditures by the Corps were $224 million in FY 1987, $297 million in FY 1988 and $343 million in FY 1989, of which $77 million was from the Inland Waterways Trust Fund.

In addition, projections show that 5% inflation on projects will outrun the 1.5% increase in fuel consumption. While some elements of the government wish to use the Trust Fund for rehabilition, the Board will oppose such use in order to maintain solvency of the fund for new projects.

Today, the waterways are basically sound and efficient, although parts of the system are not operating at maximum efficiency because of downtime. The Board believes that the advent of the new cost sharing relationship with the government, users, and shippers will be able to help the Corps evaluate components of the system in order to maximize the best use of our limited financial resources, by directing those resources where they are needed the most. Our goal is that the Board will play an important role in establishing an order of procedure to ensure that projects are studied, rehabilitated, or replaced in a timely manner and with a good return for the investment in the system. The Board has already made progress toward that goal. I believe that the Board and the Corps have learned a great deal from each other. As the IWUB matures and learns, it will achieve the results that were intended by the Congress.

UPPER MISSISSIPPI RIVER TRANSPORTATION ECONOMICS STUDY

BY
JOEDY CAMBRIDGE
Leeper, Cambridge & Campbell, Inc.

The upper Mississippi River Transportation Economic Study is a cooperative effort between five states and two federal agencies--the U.S. Maritime Administration, U.S. Department of Agriculture and the Departments of Transportation of the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin. The study is investigating the short-term alternatives to the costly infrastructure investments on the Upper Mississippi River. "Upper Mississippi" is defined as the area from Cairo to just north of the Twin Cities. The objective of the study is to identify, test, and analyze relatively low-cost, practical measures that will improve the cost structure of transportation on the river. A product of the study will be a micro-computer based model which can be applied in analyzing other waterway systems as well.

The Impetus Behind the Study

The Upper Mississippi River is an important link in the transportation of bulk commodities which are vital to the Midwest economy. Low transportation costs are essential in maintaining the competitiveness of Midwest grain exports, as well as controlling the cost of regional energy. The current system of 26 locks imposes high capital and operating costs on barge operators due to lock and navigation constraints. The recent increases in user fees, together with deteriorating infrastructure conditions further detract from the cost efficiency of the system.

Federal funding is unlikely to provide relief in the near future. There are currently no major infrastructure improvements budgeted for the Upper Mississippi River other than the current construction at Lock and Dam 26.