

## Rebuild All of Ohio's Locks and Dams

*The following document was submitted to the U.S. Army Corps of Engineers (USACE), Pittsburgh District, by the Lyndon LaRouche Political Action Committee, on June 29, 2006, for the official public comment period on their new report on the Ohio River Mainstem System Study. The report was released in May 2006, by the Great Lakes and Ohio River Division of the USACE. This document was prepared by Marcia Merry Baker.*

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### Congressional Go-Ahead for Ohio River Lock and Dam Upgrades Is a Key Part of National Economic Emergency Measures

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The release of the Ohio River Mainstem System Study (ORMSS) this May, provides a critical opportunity for focusing not only on the necessity for Congress to immediately back the fullscale modernization of the 19 outdated locks and dams on the Ohio River, but also, for Congress to initiate other long-overdue infrastructure repair and replacement pro-

grams—throughout the entire waterway system, from ports to levees, in addition to power, water supply, hospitals, and other essentials. In turn, this requires immediate Congressional emergency intervention to call a halt to the liquidation process now under way in our auto/machine-tool sector, in which the last bastion of U.S. industrial capacity is centered, and without which, we have no existence as a nation.

The June 23 announcement of the wholesale elimination of 47,000 auto worker jobs through “buy-outs” in GM/Delphi, dramatizes the overall radical industrial downsizing under way, in which the auto workforce has already been cut by 240,000 (20%) since 2000. There are announced shutdowns of 67 auto plants to be completed by 2008, which if not stopped, means 75 million square feet of capacity will be lost—more than in the past 30 years combined. Machine tools are literally being sold off for pennies on the dollar.

How Congress must act to stop this, and restore infrastructure- and industry-building policies, is outlined in the “U.S. Economic Recovery Act of 2006” (ERA), released in May by the Lyndon LaRouche Political Action Committee, and now in mass circulation. (It is provided as an appendix to this statement). In brief, what’s required is:

1. Halt the liquidation under way of the auto/machine-tool capacity and workforce; preserve and retool it through Federal receivership precedents, while re-establishing industrial activity;
2. Launch major infrastructure repair and construction projects;
3. Expand the Army Corps of Engineers approach to coordinate both largescale projects, modern-day CCC programs, and to rebuild the U.S. military itself.

Your ORMSS report summarizes the importance of the

*Aging Locks and Dam on the Ohio River at Emsworth, Pennsylvania. Shown here are the first locks and dam on the Ohio River below its origin at Pittsburgh. The Emsworth L&D were built in the 1920s, and are a testament to the Corps’ ability to maintain structures well beyond their design life. However, the dangers and likelihood of sudden structural failure are great. Emsworth is officially considered in an “exigent condition.” The ORMSS report states, “There are two major concerns with the physical condition of the lock walls at EDM (Emsworth, Dashields, and Montgomery): 1) concrete deterioration below concrete overlays placed during rehabilitations in the 1980s, and 2) questionable remaining effectiveness of metal anchors installed during those rehabilitations to make these walls stable. . . .”*

*The Emsworth main lock chamber, like that of the next two locks and dams downriver at Dashields and Montgomery, is 600’×110’ instead of the modern standard of 1,200’×110’, and the auxiliary lock is only 360’×56’. Standard tows of 15 barges must be broken down to transit these chambers. When the auxiliary lock must be used, only five barges at a time can proceed.*



U.S. Army Corps of Engineers/Margaret Luzier

FIGURE 1

**Ohio River—Central to Inland Waterways**

Source: Adapted from U.S. Army Corps of Engineers.

*The mainstem of the Ohio River (thick band) is shown on this U.S. Army Corps of Engineers map of navigable inland rivers and waterways. It runs 981 miles from Pittsburgh, Pennsylvania, westward through six states, to Cairo, Illinois, where it joins the Mississippi River. The Ohio System also includes navigable channels on seven tributary rivers: Allegheny, Monongahela, Kanawha, Big Sandy, Kentucky, Green, Tennessee and Cumberland. The Ohio mainstem navigation channel is now subject to unexpected closure, because of aging locks and dams. One such episode occurred Aug. 9, 2004—shown on the map with a black square—which shut river traffic for ten days until repair was made. For the Ohio System overall—that is, including all the locks and dams on tributaries—45% are over 50 years old.*

Ohio River in the U.S. inland waterway system. As the main artery in the Ohio River Basin, home to 31.5 million people, it serves an entire network including the navigable tributaries of the Allegheny, Monongahela, Kanawha, Big Sandy, Kentucky, Green, Tennessee, and Cumberland Rivers. At present, its cargo flow is over 50% coal, but in a revitalized regional economy, both the diversity and size of the water-borne freight would rise.

The proper functioning of all the navigation installations in the Great Lakes/Ohio Basins District, along with that of the Missouri/Mississippi Basins, is critical to the inland navigation of the entire continent of North America. Historically, this extensive waterways network, along with the region's ample mineral and fossil fuel deposits, were the resources—natural and man-made—contributing to the rise of the most productive industrial complex in the world: the Upper Midwest states, and Ontario, home to steel, auto, all types of heavy industry and machine-tool capacity, and most importantly, a population of skilled workers and high-tech farmers. The Upper Midwest region was home to the world's first, and most extensive, nuclear power grid.

Now all this is being dismantled. There is net population loss from dozens of counties and cities throughout the Mid-West; Joblessness and poverty are spreading. We can

and must force a policy shift, and restore a functioning economy.

### **Build the Projects, Expand Corps' Role**

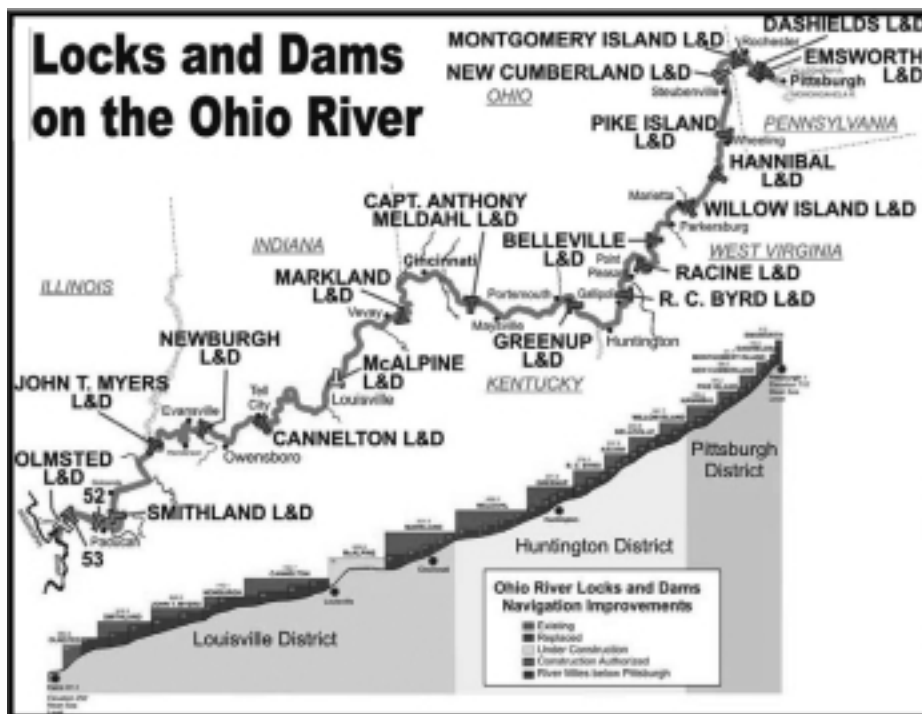
In the section of the ERA entitled, "The Concrete Action Required," LaRouche states, "The . . . elements of the automotive industry scheduled for discard must be taken over immediately by the U.S. Federal government. Their essential productive personnel and present facilities must be promptly assigned to suitable categories of work consonant with the special capabilities of a modern, machine-tool-design-driven engineering and manufacturing function.

"The following list [of five infrastructure areas] is exemplary:

*"1. Ocean ports and inland waterways of transportation.* This indicates an associated role of these adopted industrial capacities, and the U.S. Corps of Engineers.

"The enlargement of the U.S. Corps of military engineers, together with its complements in the National Guard organizations of the states, should be a leading, greatly expanded element of the proposed reforms. This should anticipate the needed role of organizations paralleling the intention of the CCC program of the 1930s, for the cooption of youth who may be taken out of tracks of social desperation into educa-

FIGURE 2

**Ohio River Mainstem Profile**

Source: U.S. Army Corps of Engineers.

This Army Corps of Engineers schematic shows the map and elevation profile of the 19 locks and dams of the 981-mile-long Ohio River. Most of these locks are between 25 and 50 years old; three of them are in the range of 80 years old—the first three below Pittsburgh: Emsworth (see photo), Dashiels and Montgomery. Significant replacement construction is under way only at the McAlpine L&D, and at the Olmsted L&D; but due to underfunding, the work pace is slow.

In 1996, the Army Corps began a study of what investment plan is required to provide reliable navigation on the Ohio River until 2070. This report was released in May 2006, for public comment, titled Ohio River Mainstem System Study. Alternative plans for long-range maintenance and operations, replacements, and traffic volumes were looked at, including “ecosystem restoration.”

What stands out is the fact that lock and dam replacements and upgrades are long overdue. As the ORMSS report says, “Performance of the system’s aging infrastructure will continue to deteriorate in the future without aggressive maintenance or lock modernization.”

This Army Corps of Engineers report is available, with color versions of the graphics shown here, at [www.lrl.usace.army.mil/ormss](http://www.lrl.usace.army.mil/ormss).

tional and related programs of development leading them toward a fruitful future as citizens with prospects of healthy families of their own.

“The depletion and other wrecking of the engineering and other national-security functions of our military services redouble the importance of the natural civilian functions of a military Corps of Engineers in today’s world, at home, and at large.

“The prime example is the complex of river systems feeding, chiefly, into the Mississippi, between the Rocky and Allegheny mountains, from the Canadian border to the Gulf of Mexico.”

This situates the importance of action on the Ohio mainstem locks and dams—according to the Corps’ maximum program for what it calls in the ORMSS report, “Lock Modernization Alternative.”

The additional four categories for concrete action identified in the LaRouche Economic Recovery Act of 2006 are: new freshwater supply sources, including use of desalination; nuclear power, and high-tech coal electricity; high-speed rail; and space and aeronautics.

**Mass Job Creation**

Mass numbers of productive jobs can be created directly in this building-process, and indirectly through the revived industrial supply lines, by going full-tilt on the Ohio River mainstem projects, plus those on its six main tributaries, and doing likewise on the other long-overdue work on the inland waterways:

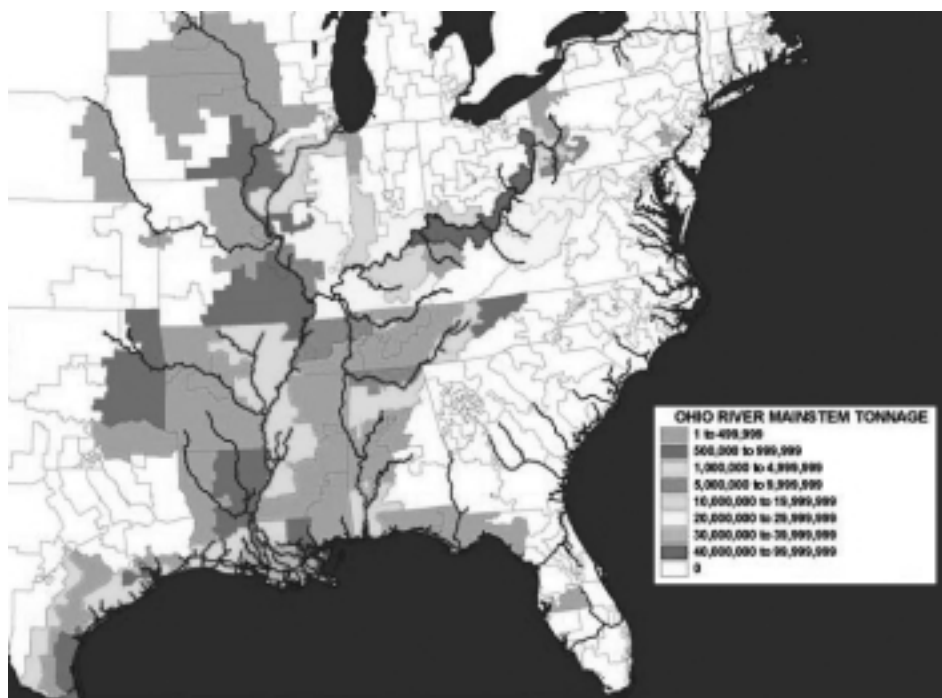
- Upgrading the 39 locks and dams on the Upper Mississippi/Illinois;
- Carrying out all work needed on all aspects of the Missouri/Mississippi Basin,
- Especially providing the most secure flood control systems possible for New Orleans—including delta creation, sea-gates, and all possible related developments.

The institutional framework is already in place to enlist youth

in this drive. For example, the AmeriCorps coordinates tens of thousands of youth in “intern” functions, which can be adapted to the rebuilding programs. In particular, there is AmeriCorp’s NCCC sub-group, the National Civilian Community Conservation Corps. It was first enacted in 1990, and then set up under AmeriCorps in 1994, by retired military leaders.

The youth involved in the NCCC, ages 18 to 24, have consistently conducted high-level service, from drought relief to fire-fighting. This program can be scaled up from its current “demonstration” level of only 1,100 to dozens of thousands. Some of these brigades could have a role in the river basin

FIGURE 3

**Ohio River Traffic Tonnage, by Congressional District**

Source: U.S. Army Corps of Engineers.

*The map shows any tonnage, for Congressional Districts, that travels at least a portion of the Ohio River. The darkest tone, indicating the heaviest tonnage, appears in CDs along the riverside of Ohio, West Virginia, and Kentucky, where many coal-fired electrical generator plants are sited. Over 60% of the tonnage carried on the Ohio River is coal. However, the geographic pattern is extensive throughout the central and Gulf states, of areas with tonnage of coal and other goods carried on the Ohio River. This map, in color, is available at [www.lrl.usace.army.mil/orrms](http://www.lrl.usace.army.mil/orrms).*

improvements, learning alongside the skilled construction trades and engineers, and implementing landscaping, and site-work.

Look at the job parameters involved in the Ohio River projects alone. If required improvements on all the Ohio River locks and dams are undertaken at full-speed, there is a construction trades workforce implied of 20,000 directly, and thousands more jobs involved indirectly throughout the supply channels for concrete, fittings, and services of all kinds. Then start multiplying these job categories, if all the work is revved up on the Monongahela, Allegheny, Big Sandy, Green, Kanawha, and Tennessee, and Cumberland tributaries.

### Change in Thinking

The critical requirement for all this, is a change in thinking. What's needed is a return to the traditional nation-serving approach that developed the waterways, rail networks, and all aspects of the infrastructure base to begin with, creating *population potential* by man-made improvements in the re-

source base. This is the principle of the founding mission of the Army Corps of Engineers, and is what has characterized all historical periods of U.S. domestic improvements, especially those carried out in the 1930s anti-Depression programs under Franklin Delano Roosevelt.

It was not until the recent decades of so-called post-industrialism, and globalization, that the neglect of essential infrastructure came to be tolerated and rationalized. The result is that today, large parts of the nation's transportation and other physical structures are at the point of threat of breakdown, as the Corps rightly stresses in the case of EMD—the Emsworth, Dashields, and Montgomery locks, now 80 years old.

Especially insidious is the subversion of institutions, to condone such obvious physical economic decline. In that category is the National Academy of Science, which resorted to pseudo-science methodology in order to oppose the upgrading of the locks and dams of the Upper Mississippi/Illinois. Likewise, the Ohio River Foundation ad-

vances concerns over fraudulent “environmental” issues, to oppose infrastructure. Individuals associated with these operations are either wittingly, or unwittingly, associated with international financial networks acting deliberately against U.S. interests.

In contrast, there is a growing demand that Congress act immediately on the crisis. Dozens of resolutions to this effect have been filed and passed in cities and states throughout the Ohio/Great Lakes Basin over the past 13 months, including in Cleveland, Detroit, Buffalo, and others. We supply your office with copies of these.

On Oct. 13, 2005, the Louisville City Council passed a resolution specifically warning Congress of the “disaster with incalculable chain-reaction consequences,” if the “economic anchors” of auto and machine-tool capacity were lost. Instead, the Louisville resolution said, “one of the key options is Federal capital investment in diversification of the productive potential of the automotive and machine-tool industries into a broader mix of production . . . [to supply] economic infrastructure [including] water management systems. . . .”