

Potential Revenues for Inland Ports to Match Federal Maintenance Costs

DONALD H. JONES

User fees and matching maintenance costs are subjects of crucial importance to many ports at this time. The federal government, both Congress and the Administration, are closely examining the possibility of requiring ports to match at least in some proportion the cost of maintaining channels within port boundaries where, in the past, the work has been conducted by, and the costs borne by, the U.S. Army Corps of Engineers. Ports operate as both public and private entities. Some ports conduct all channel maintenance and bear all the cost; others are totally dependent on the U.S. Army Corps of Engineers. The purpose of this study was to develop a list of potential revenue sources to generate funds to match the federal cost of maintaining channels used specifically for port operations. A discussion of each potential source points out some of the advantages, disadvantages, and complications. Illustrative examples are given that point out some of the major differences in port operations and functions. The basic element of any discussion of ports is competition: competition between ports, between public and private operations, and as a mode of transportation.

In the future ports may have to assume all or part of the cost now borne by the federal government for maintaining channels that provide access to their facilities. Federal legislation is being considered and may be enacted during the 1983 session of Congress. This cost will be essentially for dredging operations now performed by the U.S. Army Corps of Engineers. For clarification, in this paper on port channel maintenance no portion of the operations, dredging or otherwise, necessary to maintain main-stream channels is considered. Ports must confront this issue; therefore, an effort has been made here to avoid the pros and cons of whether or not it is valid.

Some of the problems will be examined to develop the focus. Potential revenue sources and methods of generating revenue along with the advantages and disadvantages are discussed as candidly as possible. It may be impossible to determine and evaluate every source of revenue on the first effort, but a preliminary list has been developed that will aid ports in generating funds to match the federal maintenance cost, if needed, or will aid in generating revenues for other purposes.

Before selecting a revenue source, thought should be given to who will perform the maintenance and what portion of the cost will have to be absorbed. Then all potential revenue sources should be carefully evaluated. The U.S. Army Corps of Engineers could conduct the work and bill the port authority/commission for its share. If a port must bear all the cost, the port may consider acquiring the necessary equipment and doing the dredging itself or letting the work to contractors. Later, these elements will be discussed further. The share of the cost that must be borne and the methods of accomplishing the work can substantially influence the selection of a revenue source.

Some questions regarding channel maintenance go beyond the generation of funds and include operational procedures and economics. A port considering acquiring dredging equipment or hiring contractors may encounter problems that will necessitate a feasibility analysis that evaluates the benefits, cost, environmental impact, and administrative problems. In many instances, dredged materials can be disposed of readily, profitably, and beneficially for rather long periods; in other instances, disposal of dredged material will cause environmental problems and other concerns.

All elements of channel maintenance can usually be done by contractors, eliminating the necessity of acquiring equipment and hiring personnel. However, reimbursing the Corps for work done may be the only feasible approach for many ports as long as this is a possibility. As potential revenue sources are considered, some of these questions will be discussed but not necessarily from the standpoint of feasibility and economics. The cumulative effect will be realized by the user who is the ultimate beneficiary of water transportation.

THE PROBLEM

The problem does not appear to be so much one of the imposition of a charge for maintenance performed by the Corps as one of hardship imposed on those ports with a long-standing precedent of dependence on the Corps to perform certain elements of maintenance. Many of these ports also received a great deal of assistance and encouragement from the Corps in their original development. The other extreme are those ports which received no development assistance and no maintenance assistance from the Corps except for being near a Corps developed navigable channel. Other ports are somewhere between these two extremes. An examination of some examples may help in understanding these cost allocation problems.

The Port of Catoosa at Tulsa, Oklahoma, operating under the city of Tulsa-Rodgers County Port Authority (see Figure 1), dredged a harbor consisting of approximately a 1.5-mile channel and turning basin. The Port Authority bore the cost of dredging the channel and harbor and is fully responsible for its maintenance. The channel was dredged inland from the head of the Arkansas River navigation system on the Verdigris River.

In contrast, Presidents Island on the Mississippi River at Memphis, Tennessee (see Figure 2), which operates under the Memphis and Shelby County Port Commission, was developed with the assistance of the U.S. Army Corps of Engineers. The level of the island was raised using material dredged by the Corps, and the cutoff of the sluice was constructed by the Corps. The channel along the old sluice was dredged to navigable depth by the Corps, and the navigable channel in the harbor has been consistently maintained by the Corps. From Figure 2 two other interesting developments are perceptible which further add to the dilemma. A private port, River-gate Industrial Port, has been developed off the main harbor channel. The secondary harbor was dredged and is fully maintained by the private port. The second complication is the Tennessee Valley Authority's (TVA) T.H. Allen steam generating plant. TVA is an agency of the federal government. There are also many other private terminals operating on or from the main harbor channel. The complicating factor is how these entities will provide their share of the matching funds and how their share will be determined.

A third contrasting example is the private port (see Figure 3) operating totally outside the auspices of a public port authority or commission. These private ports, often a single terminal, are usually developed and maintained with private funds.

Some of these ports operate on a dredged harbor, and some are located directly on mainstreams.

A fourth example is a demonstration project owned by a public state agency and developed at the encouragement of and with the assistance of a federal agency. This example is an interesting study of the economic impact of channel maintenance on a port operation. For this example, the Yellow Creek Port shown in Figure 4 will be used. It is located on the Yellow Creek embayment of the TVA Pickwick Landing Reservoir on the Tennessee River in Mississippi. This port facility was developed with the full assistance and guidance of TVA and is owned and operated by the State of Mississippi. The port has its own dredging equipment because of the potential for considerable silting around the wharfs; however, the equipment may be too small for maintaining large channels. The total economic impact on this site will probably not be known until the Corps deter-

mines the exact width of the Tombigbee Waterway to be maintained at this point.

These contrasting examples serve as the basis for this paper.

POTENTIAL REVENUE SOURCES

From research and discussions with port personnel, it is apparent that many potential revenue sources exist; all have advantages and disadvantages. The list given below is not exhaustive nor is it probable that any one will serve all needs. A combination of sources may be required for any one port.

- Front-foot assessment
- Tonnage assessment
- Fuel assessment
- Assessment on barges
- Docking fee

Figure 1. Port of Catoosa operation under the Tulsa-Rodger County Port Authority.

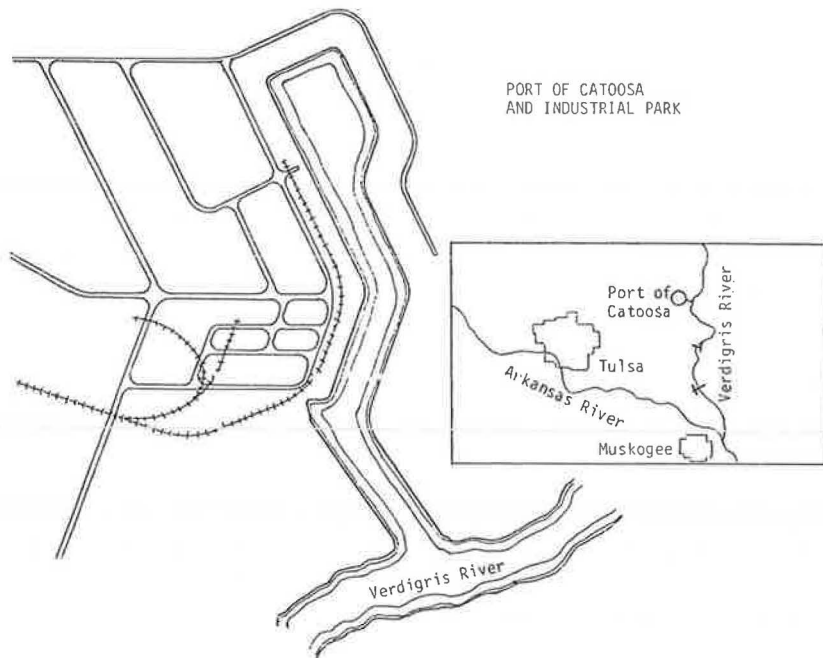
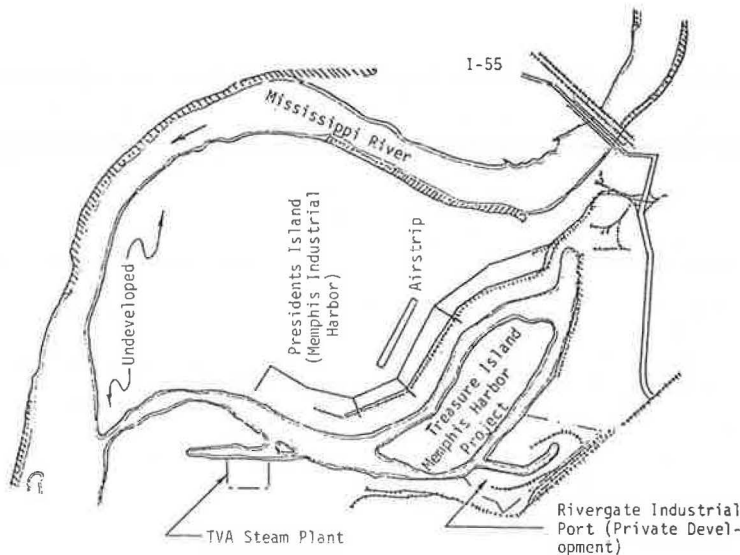


Figure 2. Presidents Island-Memphis and Shelby County Port Commission.



General tax revenue: property, sales, and other
 Personal property tax
 Excise tax
 Fleeting and vendor gross receipts assessment
 Revenue generated from commercial disposal of dredged material

Offsetting cost (enhancement of port-owned real estate)
 Assessments on receipts of sales other than fuel
 Export tax
 Add-on to leases or increased leasing fees
 Perpetual maintenance fund
 Employment privilege assessment

Figure 3. Illustration of a possible privately developed port with terminal and industrial potential.

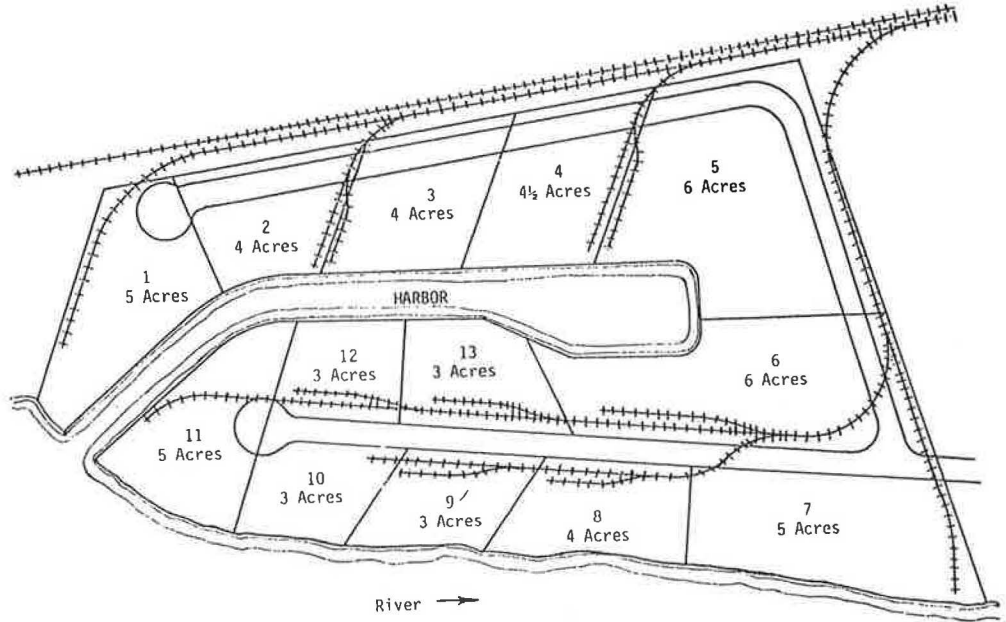
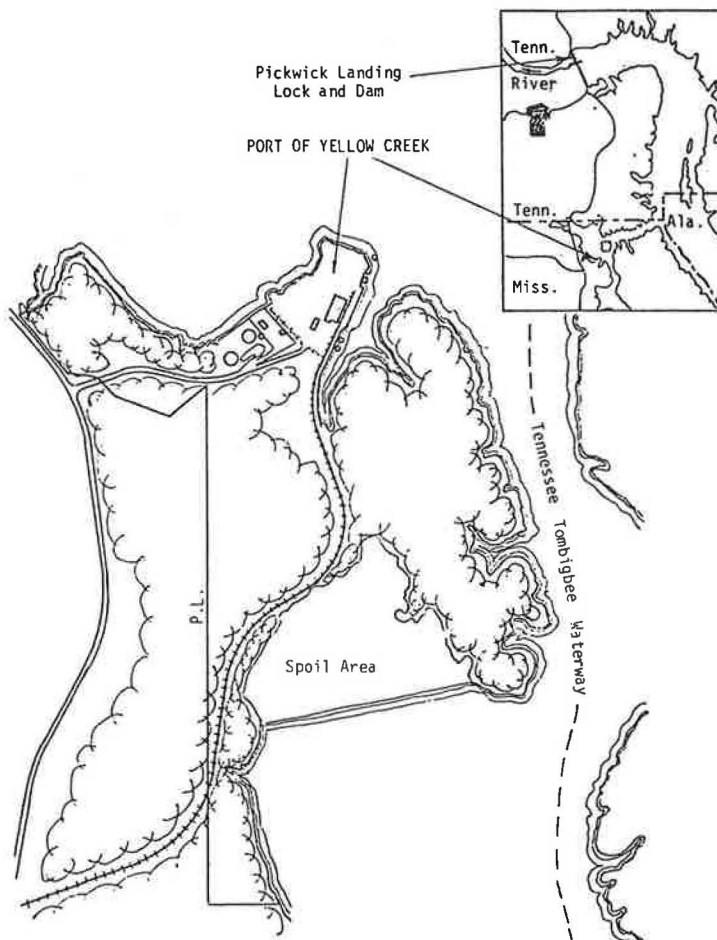


Figure 4. Yellow Creek, state inland port and industrial properties.



Evaluation of this tentative list of potential revenue sources should take into consideration fairness, collection procedures, potential loopholes, and the potential for cheating or escaping the assessment. Unethical practices must be carefully guarded against.

Three definitions are given below to provide a clear understanding of the terminology used in this paper.

Port--a complex of terminals and other possible commercial and industrial activities operating under some kind of organized control.

Terminal--land and facilities required for docking, mooring, loading and unloading of barges, and for the storage and/or transfer of goods.

Front-foot--a linear foot of property measured along the water's edge unless otherwise defined.

A discussion of each of the potential revenue sources follows.

Front-foot Assessment

This may appear to be the easiest source for a port to administer. Those tracts abutting the water are assessed a fee for each linear foot of property fronting on the water. The front-foot fee can be adjusted at given time intervals. It is straightforward and, unless loopholes are found, everyone pays the same front-foot fee. However, using the preceding definition for port, the possibility of complications is inherent.

An examination of Figure 5 illustrates some of the complications. The 20-foot right-of-way serving tract 9 is excellent use of waterfront property if tracts 3 and 5 can afford the encroachment of barges serving tracts 4 and 9. The tonnage passing through to tract 9 may far exceed that generated by any other tract in the complex. Will the users of tract 4 pay the same front-foot fee as tracts 1, 2, 3, and 5 or will they share part of the assessment assigned to tracts 3 and 5 because of barge encroachments? Suppose tract 9 handles twice the tonnage of tract 1, but tract 1 requires the water frontage because of the size of its product; or suppose tract 4 handles four barges per week compared with one barge

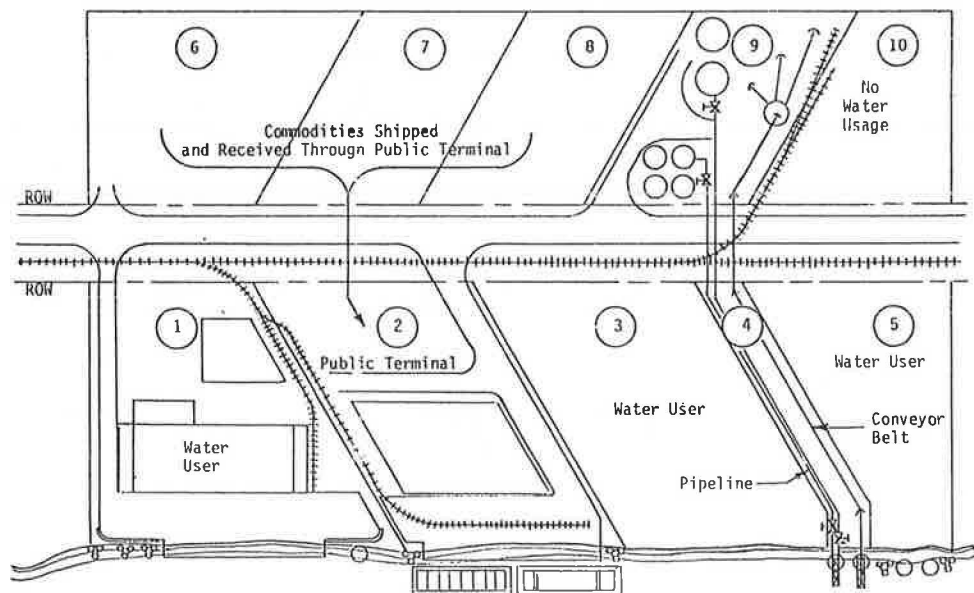
per week for tract 1. To complicate matters further, tracts 6, 7, and 8, although dependent on water transportation, may be able to use the public terminal.

The public terminal further complicates the discussion. Assume it is owned and operated by the port authority/commission and is not subsidized. The terminal must recover its cost and make a reasonable return on its investment. The investment should include such things as the value of the land at the set-aside or appropriation date, interest, building and development costs, other costs including utilities costs, operating costs, and the front-foot assessment for channel maintenance. The question then is whether tract 2 pays any of the channel maintenance cost or whether the cost is passed on to tracts 6, 7, and 8. Something interesting is revealed in a close examination of tracts 6, 7, and 8. An efficient public terminal operating at near capacity can possibly handle more tonnage than tracts 1, 3, and 5 combined; and any one of tracts 6, 7, or 8 may use water transportation far more than either tracts 1, 3, or 5. Even though tracts 6, 7, and 8 may be paying all of the front-foot assessments for tract 2, are they paying more or less than their fair shares of the channel maintenance?

Now consider the position that any business within the development should pay some portion of the maintenance cost because of its proximity to the water. Then, the highway front-footage could also be assessed. Tracts 1 through 5 may have an advantage over tracts 6 through 10 on the theory that tracts 1 through 5 require water frontage and that the added independence of operation has a value even with the added cost of wharf and mooring cells or dolphins. It may be more economical for tracts 6 through 10 to access the water by indirect pass-through or via a narrow right-of-way provided by tract 4. Possibly tracts 1 through 5 should pay a surcharge based on water-front footage. There may be many such problems requiring full evaluation.

Tract 10 is not a water user, but it is in the same complex and under the umbrella of the port. The tenant of tract 10 is there at the discretion of the port administration based on a management decision. If the original agreement stated clearly the

Figure 5. Hypothetical illustration of port industrial complex.



conditions for occupancy for these tracts, no problem would occur. If not and a charge was not originally required for channel maintenance, there is definitely a problem. The greatest advantage of the front-foot fee is that a known quantity is being worked with, and fee variances can be negotiated.

From another example, the Port of Catoosa management knew from the beginning that it would be responsible for all channel maintenance and could make provision in the original lease or sales agreements for funding the maintenance cost. Problems developing later can be related to oversights or management error. Presidents Island, on the other hand, originally developed by the U.S. Army Corps of Engineers, functions under the assumption that maintenance will always be provided by the Corps. It can be argued that for long-range planning purposes such assumptions should always be supported with contingency plans. Yet the situation exists that some ports began operating under prevailing conditions that are now difficult to change.

One of the conditions, based on an old typical tradition, was that land must be owned in fee simple because "it has always been done that way." Other subtle reasons played a part in fee simple sales such as real estate agent fees for land sales, interest on bank loans for land acquisition, and the extra element of control inherent with land ownership. All of these factors make for a difficult solution in collecting fees for maintaining the channel. It could be argued that the channel should be allowed to silt up so that the proprietors would have to reach some agreement.

Now consider another situation. A private development under way across the river and located on the main channel is maintained by the Corps by virtue of its location on the main stream, and the riverbanks are virtually self-cleaning. A tenant on Presidents Island could conduct a quick economic analysis based on relocating across the river. This would place operations such as Presidents Island in an awkward bargaining position because of the threat of a sudden increase in operating costs.

Another problem that could be encountered arises through the configuration of a lot such as lot 11 in Figure 3, which has excess water frontage. A lot may also have unusable water frontage. How should a front-foot fee be assessed for such lots, and how can it be decided what is excess or unusable? There also may be a number of users operating as a direct result of the port who will escape paying any share of the matching maintenance cost.

Tonnage Assessment

A tonnage assessment is simple and can be administered solely by the port administration; however, collection is not simple. Every ton entering and leaving the port's jurisdiction via water may be assessed a fixed fee to cover channel maintenance. Whose ton will be assessed--the shipper's the receiver's the tow operator's? How will the tonnage be computed--by scale weight, liquid conversion from metered gallons, estimates based on barge drafts, or cubic feet metered and converted? Suppose one industrial tenant receives a raw product and ships out a finished product, all by water. Assessing every ton entering and leaving represents a double charge. Another concern is the fairness of assessing a tonnage fee for commodities entering or leaving by other modes. Such cross-subsidization has caused many problems in other areas.

The difficulty with this approach arises with collection. It appears simple to check the waybills of each tenant each month, total the tonnage, compute the assessment, and collect the revenues. But

this information could be leaked to competitors; and no matter how one looks at it, an examination of business records is an infringement. To depend on the tenant to submit gross, raw tonnage with no breakdown could invite cheating. Even supporting documents such as waybills could be hidden or suppressed. If everything moved through one terminal, collection may be simplified somewhat; but this does not occur often. Uniform application may be the best asset of the tonnage assessment, and the opportunity for conniving may be its worst liability.

The Presidents Island operation can be used to illustrate the tonnage assessment approach. The harbor channel is approximately 12 miles long with a minimum channel width of about 300 feet and a minimum draft of 12 feet. The Corps of Engineers allocates approximately \$1,250,000 annually for dredging the harbor channel. Approximately 11,000,000 tons of cargo passes through the harbor annually. To cover the Corps' dredging cost would require approximately \$.12 per ton or about \$360 to \$480 per barge.

Assessment on Fuel

In many states the mechanism is already in place for administering a fuel assessment. Tennessee, for example, collects a \$.04 per gallon sales tax on fuel sold for marine use; this tax now goes directly into its general fund. The present tax could be diverted to or increased specifically for channel maintenance and would provide a reasonably dependable source of funds. It would probably be futile for a port to levy such an assessment because of competition from refuelers operating outside the port jurisdiction and from other states. Also, the boundaries of authority could quickly be brought into litigation if, as has occurred in Louisiana, the port authority/commission attempted to extend its authority to questionable limits.

Many problems are inherent to state-collected fuel taxes. First, it becomes a political issue. The legislature has the responsibility for setting tax rates, allocating funds, determining how funds are to be used, and determining who will be taxed. The state administration must collect the tax, bank it, and distribute it. The trade-off potential is enormous in both the legislative body and the administrative body and does not end with passage of the law creating the tax. The remoteness of collection and administration makes diversion of the funds possible as far down as the port authority/commission. As a consequence the port would receive little of its allocation and would have to fight nearly insurmountable odds on an annual basis to get sufficient operating funds. Such a pass through of funds is always subject to controversy; and collection and administration are costly. When the state or federal government enters a program, intervention, at least in the form of controls and regulations, is inevitable.

The fairness of such a tax is also open to debate. For example, should a mainstream tow on the Mississippi River operating between New Orleans and St. Louis that never docks at a Tennessee terminal but refuels near Memphis have to pay a fuel tax to support the Presidents Island complex? Possibly such a tax would equal out among the states using this method of funding. Also private developments that may not receive tax funds would probably be put at an unfair disadvantage. Recreational boats operating outside the port jurisdiction may also have to pay the tax. Boat owners operating on nonnavigable lakes and streams probably would not enjoy paying for commercial water transportation. At best it seems that funds received through this source will have to be supplemented with funds from other

sources. However, some ports will probably receive excess funds while others are faced with a shortfall and left without a contingency unless the state does the work or reimburses the Corps directly. Of course, state or federal involvement may increase river transportation of pulpwood substantially.

Assessment on Barges

This approach is essentially a toll charge and may work well in a constricted entrance-exit point with a booth that has radio contact with towing vessels for identification, and someone to count and record the number of passing barges. The shipper or receiver could then be billed for the toll charges. No fleeter would want the responsibility for collecting the toll and the additional recordkeeping involved. Unless compensated for the additional recordkeeping, a marginal fleeter could suffer severely. If the responsibility were placed on terminals for the recordkeeping and collections the same would be true. A toll probably would not be charged for both entering and exiting barges because this would result in double recordkeeping and appear as a double charge. Barges built or scrapped within the port would be exceptions.

A barge toll may be a fair and equitable approach; however, the tenant with large waterfrontage and only a few barges processed annually may still escape paying for benefits received. For example, a manufacturer who may build nuclear reactors with a weight of only about a thousand tons, but worth hundreds of thousands of dollars, may make only one or two shipments per year and receive a small number of barge loads of material annually. Water transportation is essential, yet the firm could conceivably pay little toward the maintenance of the channel. Another problem with this approach is that some operators may escape the assessment in a similar manner as explained later under fleeting and vendor gross receipts assessments.

Docking Fee

A docking fee is not as easily administered with barges and tow boats as with single unit ships. Barges may be dropped off at a wharf in clusters or single units. They may remain at the wharf from a few hours to several days. The barges may be owned by the firm that owns the terminal or may be owned by a dedicated barge line. Tow boats (power units) may also be owned by the firm that owns or operates the terminal. Tow boats, especially harbor boats, may be operating in and out of the wharf continuously, remaining for a few minutes or for long periods. Many barges go from the tow to the fleeter, to the terminal, back to the fleeter, and then to the tow.

The difficulties with docking fees are who will pay the fee--the tow operator, the fleeter, or the terminal--and which unit will be assessed? How will the fee be determined--on length of time at the wharf, a fixed fee for each barge anchored at the wharf, or a fee on each tow boat maneuvering into or anchoring at the wharf? Who will collect the fee and which firm(s) will be responsible for the fee? There is little difference in toll fees and docking fees. Each will be difficult to administer, but the docking fee may be subject to more abuse.

General Tax: Property, Sales, and Other

In many states there may be legal problems with this approach. Some areas may be able to work out the problems legislatively, but this is an era of rebellion against increasing taxes. Because property

taxes as well as some sales taxes are assessed locally, these may have built-in regional restrictions. Arguments have been advanced that everyone in a region benefits from a thriving commercial business that provides employment opportunities and an increased tax base; however, there are just as many arguments to the contrary.

A general tax raises serious questions about subsidization, and it can be harmful to some people, such as those on fixed incomes. Probably, the main reason the issue of channel maintenance charges has been raised is that many believe that national taxes collected to fund the U.S. Army Corps of Engineers should not be used to subsidize port operations on navigable river systems, particularly in the realm of free enterprise competition. The other problem is that the private ports and some public ports (such as the Port of Catoosa) with full channel maintenance responsibilities must continue to pay their own way without aid from a general tax base.

A general tax would be an alternative source, and the increase in tax could be miniscule. For instance, in Shelby County, Tennessee (Memphis), a \$.005 increase in the local sales tax would generate approximately \$1,895,000 in revenues, and a 1.5 mill increase in the property tax assessment would generate approximately \$1,500,000 compared with the Corps expenditure of about \$1,500,000 for harbor channel maintenance in the jurisdiction of the Memphis and Shelby County Port Commission. The property tax is collected by the county, and the sales tax is collected by the state and returned to the local governments.

The structure is in place, and the effort to get the tax increases may require less energy than any other approach depending on the sensitivity of the issue and how much it is advertised or becomes general public knowledge. On the other hand, such an attempt could raise questions as to why a public entity is in competition with private enterprise and why the general public should be taxed, especially on a statewide or national basis, instead of the user or beneficiary.

Personal Property Tax

A tax on personal property--machinery, furnishings, and so forth--is a possibility. There has been some success with businesses but not much. A business must either declare its personal property and its value or submit to an inventory and appraisal. A declared inventory and evaluation is always questionable, and forced submission to an inventory and appraisal is an infringement; either way a personal property tax is probably not feasible. The tax would have to be imposed and administered by a governmental agency because a port authority or commission would be unlikely to have the authority to levy such a tax. The problems encountered could cause considerable disharmony in the port commission.

Excise Tax

Such a tax could be levied on commodities manufactured, sold, or consumed that were transported on the water system. The shipper or receiver would have to be responsible for at least reporting if not also collecting. How to assess the tax would pose problems. Some items could be assessed on unit value, others on a tonnage basis, and others on volume. This may require itemization, a difficult task. The tax would probably have to be administered at the state level to be effective and probably would also have to be collected at private ports also to prevent deliberate avoidance of public ports.

A fee for the privilege of operating on the waterways could probably be more easily administered than a tax on commodities. It could be levied on all users based on volume of business. The problems would include the probability that it would have to be levied on all waterway users for the benefit of a few, and it probably would have to be administered by the state.

An excise tax could be viewed by businesses as a nuisance tax and another add-on tax, and it might be strenuously opposed by private ports as a tax against them for the benefit of public ports. It could drive business away, especially where a river forms the boundary between two states.

Fleeter and Vendor Gross Receipts Assessment

There are operators such as fleeters, suppliers, refuelers, contractors, dredgers, and repair vendors who could seemingly escape participation in the maintenance cost. Fleeters, for example, can operate outside the jurisdiction of a port but derive most of their income as a result of the port operation. However, fleeters may also derive a great deal of income from operations outside the port jurisdiction. Vendors may operate directly from the port without any tie to the port authority/commission through a secondary lease or by paying a small privilege or mooring fee to a waterfront tenant. Some vendors could operate from water access ramps using small pleasure craft without paying any fees; however, these operations may be so small that the effort necessary to collect an assessment would not be worthwhile. The only way to administer the collections may be to conduct a thorough inventory and collect on gross receipts derived from port jurisdictional operations.

There is also the problem of what to do about the state, county/parish, and city boundary in the middle of the main channel; this is common with inland waterways. Assessments could be apportioned between cooperating entities as fuel assessments and license fees are apportioned between states for trucks based on miles of operation in each participating state (reciprocity). These states have strong laws regulating revenue collection and a contingent of enforcement agents. Some states have not reconciled differences and do not participate in the apportionment process. Cities and counties may find it even more difficult to work out differences. The greatest complication, however, is that all port jurisdictions may not impose the assessment on the same source and in the same manner; the problem is not with the fee structure but rather with what is assessed. Between two cooperating entities this could probably be worked out by distributing the revenue on a proportional basis.

The potential problems to be encountered with this particular source of revenue are a good reason for the state to impose a sales tax or some other type tax, such as a gross receipts tax on activities deriving income from commercial marine operations. The problems inherent to state involvement are more fully discussed under fuel assessments. The difficulty in this area appears to be with the ports collecting the assessments, administering the assessment program, and keeping up with the businesses without driving them away.

Revenue Derived from Commercial Disposal of Dredge Material

There is a possibility of disposing of some or all of the dredge material for a fee. This approach may not be viable for many ports because there are so many variables. Disposal of dredge material may

even result in a cost. However, if there is land within a reasonable distance that needs to be filled for development purposes and that is environmentally acceptable for filling, some revenues may be generated. A slurry pipeline from the dredge may be the only way to transport the dredged material economically. Occasionally, the material may be stockpiled if space is available, permitted to drain for a period, and sold for fill material.

The engineering qualities of the dredged material are also important when commercial disposal is being considered. A soils engineer should assess the qualities of the material before a sales campaign is begun. At least the prospects for selling the dredged material should be known even if the work is to be let to contractors in which case spoil may be used to negotiate a better contract.

Offsetting Cost

A port may own considerable acreage that can be used for disposal of dredged material and may benefit from a direct enhancement of the land by raising it above the critical flood stage, by leveling it out, by stabilizing it, or by increasing the waterfront. A port would have to absorb some long-range costs associated with the dredging operation in order to realize the benefits. Again, the expertise and advice of soils engineers would be beneficial. The type and kind of soil to be disposed of, how it is spread, and the potential of self-drainage or mechanical dewatering are important considerations. Even if dredged material has been disposed of on port property under the Corps maintenance program, a future benefit may be derived that will either offset port cost or enhance the port's receipts.

The offsetting benefits should be carried on the account books, and a definite plan for use of the improved property should be developed and pursued. This approach may be available only to a small number of ports but is certainly worth considering. Presidents Island (Figure 2) and the Yellow Creek Port (Figure 4) are good examples of the beneficial use of dredged material.

A port authority/commission may also assume responsibility for maintenance dredging around terminal wharfs, mooring cells, and dolphins in order to keep dredging equipment, or contractors on retainer, operating to offset cost. Not all of the possibilities can be instituted in a fully functional port because of the competition with other port businesses such as those dredging around terminal facilities. Newly developed ports have, in most instances, a broader range of alternatives to consider, including ways of competing with other ports.

Assessment on Sales Other than Fuel

Within a port's jurisdiction there may be sales other than fuel, including food, repair stock, parts, potable water, oil, and others. In this same context, but as a separate consideration, is the sale of water-derived commodities such as sand, gravel, and shells that have their origin of operation within or through the port. A port alone may be unable to administer an assessment on sales of this type, and these businesses can easily move out of the port's jurisdiction. A local government--city or county--may be the agency to administer the assessments in view of the complications discussed under fuel assessments.

Another possibility would be to assess utility sales within the port. Utilities are a legitimate business expense subject to review and taxation in many localities. The assessment would be easy to administer and to collect. It would reach most of

the users but not all. There would be an added cost to the utility companies for collecting the assessment and the appearance of an increase in utility bills. It is probable that none of these types of sales assessments could be relied on to generate all of the needed revenue and may have to be coupled with some other type of assessment.

Export Tax

There always appears to be a willingness, even a desire, to tax something that does not directly affect us, or only slightly so, or to tax things used for pleasure or amusement. An example applicable to water transportation is a tax on commodities to be exported, especially to foreign countries, such as coal, grain, and wood products. Alabama imposes a tax on coal extraction specifically for export (taxed at point of origin). It should be noted that the tax has the effect of increasing the price of the commodity or else the competitive edge may be negated. These are taxes that would have to be handled by governmental agencies. Some states, Montana for example, tax coal and other minerals that are exported to other states. A serious concern with such a tax is the potential for reprisals.

Add-ons to Leases

If property under the port's jurisdiction is leased, a surcharge for channel maintenance can be added as the lease fees are renegotiated. This should work best with short-term leases to be renegotiated on a 1- to 3-year basis. To solve the problem of staggered leases, the beginning date for collections could be established with the renegotiation of the last lease. Catchall clauses written into lease agreements and fee simple deeds to cover unexpected developments are flag raisers and generally unacceptable. Specific clauses to cover possible and probable future actions are more acceptable. One problem seems to be that in the past a great deal of property was sold in fee simple when the idea of user charges had not been considered. Collection of lease add-on fees only requires additional accounting.

The problems of administering the maintenance program remain no matter what approach is taken to generating the necessary revenue, but the burden is on the port. Fee simple titles can include clauses to the effect that fees for specific purposes can be assessed at some future time if needed. However, fee simple titles are not renegotiable. Both leases and fee simple titles have good and bad points, but it is not the purpose of this paper to take a position or debate the issues on this subject.

Perpetual Maintenance Fund

Many operations--probably the most notable are cemeteries, water treatment facilities, and sewage treatment plants--establish a perpetual maintenance fund with a specified amount deposited directly into the fund. The fund is invested and the income is kept in the perpetual fund until it increases to an amount that will provide an income sufficient to cover maintenance. Ports are faced with two major problems that are basic to the creation of such a fund: how to generate the fund and how to hold onto it.

To generate the fund, a specific amount could be added to or hidden in the per-acre price of rentals or sales. Cemeteries usually specify an amount for the perpetual fund in the sales agreement for each lot. The responsible governmental agency could also

appropriate a fixed amount to the fund annually for a given period. Double assessments could be collected in the first few years until the fund becomes large enough to support the maintenance requirements. It is, however, difficult to convince a tenant or user that an assessment or user charge will ever be removed or reduced.

Maintaining a perpetual fund intact is not an easy task, especially with an account large enough to generate millions of dollars. The continual fight to prevent tapping, especially by local governmental agencies, may not be worth the effort. However, consultants are available for administering such funds providing both investment capabilities and protection. Managing such a fund could be an overwhelming job for a port administrator, but it would work equally well for a public or private port.

Employment Privilege Assessment

Probably the most unpopular tax would be one on the captive employee for the privilege of working within the port boundaries on the assumption that the port provides employment opportunities. Unions representing employees would also benefit from the port operation and could be considered as a potential revenue source. When all other viable sources have been tapped for a fair and equitable share, this approach might be considered. There would, however, be numerous legal ramifications that might eliminate this potential source of revenue. The outcry of those assessed, particularly the unions, could be the major deterrent in view of their political clout. This probably would be totally outside the realm of consideration for a private port and perhaps for any port.

SUMMARY

What constitutes a potential source of revenue? The word potential means something that can develop or become actual. The word was taken literally in preparing this list of potential sources of revenue, no matter how remote. Further consideration of any potential source will depend a great deal on the status of any particular port. There is probably no absolute way to rely on one source that will be totally equitable in all situations. For a specific set of circumstances, one revenue source may be adequate. Most likely a combination will be required. There is no pretense that this list of potential sources is complete or noncontroversial. Nor is it claimed that all the advantages and disadvantages are included. The actual application is outside the scope of this paper but probably the foremost concern is how to generate required revenue without driving out existing businesses or scaring away new businesses.

Transportation is a competitive field, and with deregulation it is becoming even more competitive. The institution of user charges in water transportation creates another competitive factor that must be accounted for. Ports are a segment of the overall water transportation system. Many ports already assume responsibility for maintaining channels within their jurisdictions. In those instances where the Corps of Engineers, funded from national taxes, now performs the maintenance, local ports may be required to assume the maintenance cost or the entire maintenance program; and the subject must be addressed even though it is unpopular. How to raise the necessary revenues and remain competitive as a port operation and as a viable transportation mode is a major topic for discussion.

The matter of charging the user received little direct discussion but is the major underlying fac-

tor. How to define the user causes some difficulty. There may be a need to separate users and beneficiaries and to trace any potential charges to the final bearer. In the end the customer at the end of the list, the person who eats the bread, puts the sugar in coffee, or reads the paper, is the one who bears the charges. Taxed employees may absorb some, but this cost is passed on in the form of higher salaries that are added to the cost of production. However, the final recipient of the commodity, the one for whom the commodity was produced, is the beneficiary. Can the revenue necessary to maintain the channel be passed on to and borne by that beneficiary in such a way that water transportation can remain competitive with rail, truck, pipeline, and air and the port continue operating? To be viable, a port must remain flexible, competitive, and receptive.

ACKNOWLEDGMENT

The author greatly appreciates the contributions from those who were willing to discuss this issue. Understandably, some are upset with the possibility of having to assume the cost of and responsibility for maintenance. Others are upset because it was not imposed long ago. To maintain confidentiality and because the author may want to consult these individuals again, names are not divulged. The author is solely responsible for the content of the paper which was developed primarily from conversations with various individuals and without a funding sponsor.

Publication of this paper sponsored by Committee on State Role in Waterborne Transportation.