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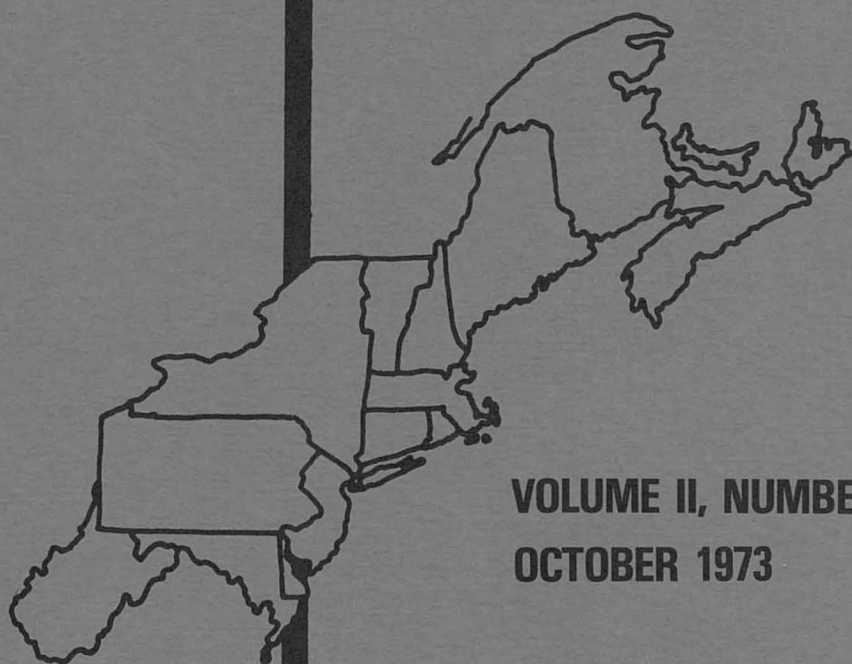
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THE MUNICIPAL AUTHORITY AS AN ORGANIZATIONAL
FRAMEWORK FOR REGIONAL PUBLIC WATER SYSTEMS

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Introduction

Demands on the public water supply "industry" have been increasing steadily. Most of the existing systems have experienced increased water use per customer over time, as well as a greater number of customers. There has also been a growing interest in and concern about providing adequate quantities of safe, treated water for all of the Nation's population. The cost of providing public water systems for "an estimated 30,000 smaller communities, unincorporated settled areas and farming sectors in rural territory without systems" was estimated at \$6 billion in 1966 [1, p. 978].^{1/} The cost of completing this task has probably increased, even though many water systems have been installed in these communities since 1966.

Because of the high cost of providing water to areas not previously served by public facilities, and the growing demands on existing systems, there is increasing interest in improving the efficiency of public water facilities. Regionalization of public water service is one frequently suggested means of raising the overall efficiency in providing public water and extending this service to more small communities and rural areas. In Pennsylvania, the municipal authority is one type of organization that can be used to provide public water, as well as other public services, on a regional basis.

This paper briefly discusses the authority form of organization, the status and recent growth of water authorities in Pennsylvania, and the advantages and disadvantages of this type of organization for water utilities. The organization and operating characteristics of water authorities active in 1970 were analyzed to determine, deductively, the reasons important in establishing these authorities.

^{1/} Numbers in brackets refer to items in Literature Cited, at the end of this paper.

The Authority Form of Organization

Local authorities were used to provide various public services as early as the 16th century in England [2, p. 18]. In the United States, government-sponsored corporations, similar in operation to authorities, built many of the canals and turnpikes of the early 19th century. However, authorities experienced their first period of rapid growth in this country during the 1930's. Funds were available from the Federal Government, on a local matching or partial-matching basis, for financing local improvements or services as a part of the program for economic recovery. However, many local government bodies were hampered by a legal debt limit. To facilitate the use of the proffered Federal assistance, many States passed laws permitting "authorities" or various types of public corporation for a number of special purposes. These organizations were authorized to sell bonds repayable solely from revenue received from the purpose or project for which the money was used. The revenue bonds enabled the local governments to obtain funds and, in turn, the Federal Government's financial assistance. Thus, authorities provided a way for legally circumventing any constitutional debt limit imposed on the local governing body.

Many States passed a separate statute for each project or organization authorized. Only three States -- Alabama, South Dakota, and Pennsylvania -- passed general enabling legislation during the early period of authority development in the United States. Of these States, Lindsay stated:

... Pennsylvania has been the most liberal, constantly amending and expanding her original legislation to give a flexibility designed to cover a large number of projects and to insure ease of operation [4, p. 15].

The first general enabling law in Pennsylvania was passed in 1935 [4]. The legislation was completely rewritten, and a new law was passed in 1945 [6].

Authorities may be organized in Pennsylvania by any municipality -- county, city, town, borough, or township -- or by school district. Two or more municipalities can cooperate to establish a joint authority. Authorities may be organized for a wide range of projects and public services. These include, but are not limited to, water systems, sewer systems, solid waste disposal systems, parking garages, airports, and various recreation facilities. The provision of gas, electricity, or telephone services is not authorized.

The organizational procedure in Pennsylvania, although relatively simple, is specified in considerable detail in the authorizing legislation. Authorities can be established for a 50-year period, which can be extended following specified procedures. Authorities do not have any general taxing power, but can use special assessments, such as front-footage assessments, against benefited properties for water and sewer systems and similar services. Most of their revenues, however, are derived from user fees. Authorities are empowered to establish their

own rates. As a control, customers may challenge the reasonableness of the charges levied in the courts. Authorities also have a number of additional rights and powers. Sause has stated, "The powers which an authority possesses can be described very briefly as those which enable it to accomplish its purpose" [10, p. 12].

Pennsylvania authorities are governed by a board consisting of at least five members serving staggered terms of from 1 to 5 years initially, and 5 years each thereafter. Members are appointed by the organizing municipality. In the case of joint authorities, each participating municipality must be represented. Board members may succeed themselves and, in any case, continue to hold office until successors are appointed. There are specific procedures for removing a board member for cause, and for filling a vacancy on the board.

The procedures for financing, managing, reporting on authority operations, and terminating an authority are spelled out in the enabling legislation [4, 6] and are summarized briefly by Sause [10]. Recently, the authority type of organization has been quite popular for public water systems in Pennsylvania.

Growth in Municipal Water Authorities in Pennsylvania

Municipal water authorities were initially authorized in Pennsylvania in 1935; by 1970, they had increased to about 36 percent of both the number of systems and the investment in water facilities in the State. The changes during 1960-70 were studied to determine where the rapid adoption was occurring.

The total number of all types of public water systems in Pennsylvania increased from 765 to 832 between 1960 and 1970. Compared with this net increase of 67 water systems, authority systems increased by 86, to a total of 298. Municipal water systems declined by 27 -- from 228 to 201. Private water systems increased very slightly -- from 325 to 333.

In the 45 rural counties^{2/} of Pennsylvania, authority systems increased by 54 from 1960 to 1970, for a total of 146. Municipal and private water systems decreased by 19 and 17, respectively. In the 22 urban counties, authority systems increased by 32; private systems increased by 25 and municipal systems decreased by 8. For the entire State, authority water systems increased 41 percent during the 10-year period. Private systems increased 2 percent, and municipal systems decreased 12 percent. Additional investment in facilities and changes in metered residential customers served followed similar patterns.

^{2/} Counties which either had a population density of less than 100 persons per square mile in 1970, or are not included in a Standard Metropolitan Statistical Area.

Advantages and Disadvantages of Authorities
for Organizing Regional Water Systems

The major reasons for creating authorities in Pennsylvania have generally been categorized as (1) financial, (2) jurisdictional, and (3) managerial. The ability to avoid Public Utility Commission control may have been an additional reason to adopt the authority form of organization in some cases. Depending on the viewpoint, these reasons may be considered either advantages or disadvantages of authorities.

The financial reason stems from the ability of authorities to finance projects by means of revenue bonds and thus circumvent the State's constitutional debt limit. However, municipalities in Pennsylvania can borrow in excess of their debt limit by using either "non-debt utility bonds" or "non-debt revenue bonds" [5, pp. 183 and 186].^{3/} These bonds are secured by liens on the property of the utility, or on revenue received from the utility or project for which the monies are to be used, respectively. Thus the primary financial advantage of authorities seems to be expediency in avoiding the debt limit and the related benefit of grants obtainable from higher levels of government. Additional financial advantages claimed include flexibility in financing, a means of avoiding local tax increases, and a means of providing a strictly user-financed public service.

A number of financial disadvantages of authorities are frequently cited. Authorities are said to defeat the purpose of legal debt limits and permit the municipality to incur too much local debt. Their revenue bonds generally bear a higher interest rate than do general obligation bonds. Also, the user charge concept, although an excellent pricing technique for nonessential goods or services, may result in undesirable distribution of costs in providing some essential services.

^{3/} New legislation recently adopted in Pennsylvania has altered the definition of municipalities' debt and of the means of computing the debt limit (Act 185, "Local Government Unit Debit Act," July 12, 1972, and subsequent amendments). In addition, this legislation was aimed at modernizing the procedure for municipalities to issue debt. As a result of this and other recent legislation, the municipal authority may not be as attractive as a local organization to provide various public services in the future as it has been in the past.

Other acts approved during 1972 which may affect the use of the authority for servicing two or more municipalities were Act 39, "Environmental Improvement Compact," March 16, 1972 and Act 180, "Intergovernmental Cooperation Law," July 12, 1972. It will likely take considerable time to determine the exact nature of the effect this legislation will have on the use of the authority form of organization.

The jurisdictional advantage of authorities stems from the power to create joint authorities that provide a service or services to more than one municipality. According to Bird:

The clearest and most conspicuous advantage that they offer is a method of overcoming traditional political boundary lines for the purpose of servicing areas or regions that are economically but not politically unified [2, p. 19].

Again, authorities are not the only way to accomplish this. However, they are a politically acceptable and expedient way. It tends to be easier to establish an organization that requires strong dissent to block it, than to establish one that requires strong agreement among the participants.

There seem to be no specific disadvantages related to the jurisdictional reason for authorities. A general argument against authorities, which may be most appropriate here, is that they tend to insulate control of the service provided from the public or the electorate. Related criticisms are that authorities tend to fragment the governmental structure, compete with private enterprise, and are not directly accountable to anyone. These shortcomings may be more closely related to the managerial reason for authorities.

The third or managerial reason given for rapid acceptance of authorities is the ability to handle the most business-related government functions within the corporate-type authority organization. Authorities generally have one or only a few purposes and have no government function. Also they may have considerable continuity, as in Pennsylvania with its 5-year staggered terms of board members. Efficient management is attributed to their dependence on revenue received from services, and the need to maintain a favorable financial standing in order to sell bonds for further investment. Authorities have generally avoided rate control by the Public Utility Commission. Questions regarding budget, pay scales, and user charges, as well as operating procedures, rules, and regulations, are determined solely by the operating authority. Because of these autonomous functions and the stability, continuity, and specialization of authorities, they are said to attract better qualified personnel than similar publicly operated enterprises.

The managerial benefits of authorities may be diluted if a number of such bodies are created to provide various community services. A proliferation of authorities may bewilder the public. Efficiency may be sacrificed through duplication of personnel, facilities, and processes -- such as billing for related services in a municipality. Also, authorities, once created, may lease their facilities back to the organizing municipality for operation and maintenance, thereby foregoing managerial benefits attributed to them.

Organization and Operating Characteristics
of Pennsylvania Water Authorities

The organization and operating characteristics of water authorities active in Pennsylvania in 1970 were analyzed to determine the reasons for the popularity of this form of organization. The analysis did not specifically permit concluding why an authority was formed, but it allowed inferences about the importance of the previous reasons in establishing the authorities. The analysis also provided some insight into additional reasons for or advantages of authorities over other types of water utility.

Authorities may be organized by a single municipality or by two or more jointly. Joint organization by all municipalities served is preferred (with all municipalities served represented in the authority management), if a truly regional public service is to be achieved. Once organized, an authority may serve only the municipalities participating in its organization or it may also provide water service to additional municipalities outside the authority's corporate boundaries ("external" customers). All combinations of these two categories of organization and service area are possible. The right-hand column in the following table shows the number of authorities in each of the four utility organization-service area classifications. Subtotals are also shown for the number of water systems (1) organized by a single municipality and (2) organized jointly by two or more municipalities.

In addition to being organized according to the four-way classification, authorities may be operated in two different ways. They may be leased back to the organizing municipalities for operation and maintenance, or they may be operated by the authority essentially as a government corporation. If the facilities are not leased, the board may manage the authority operations directly or may hire a professional management firm.

If the facilities are leased back to the organizing municipality, the lease may extend for the term of the authority's bonds. The annual fee in a lease-back arrangement must be sufficient to cover the interest and principal of the bonds, as well as other costs of the authority. The municipality may pay the lease fee out of revenue from water sales or from other funds, as the municipal government sees fit. Also, the municipality could probably operate the utility at a profit and use the excess revenue for other purposes if it chose to do so.

Of the 298 authorities operating in Pennsylvania in 1970, 291 or nearly 98 percent were organized by a single municipality. These data indicate that cooperative unification of a public service over an area under the jurisdiction of two or more independent municipal governments was not a major reason for forming the authorities. Furthermore, 179 of the authorities organized by a single municipality serve "external" customers. These utilities would be prime candidates for the joint-authority type organization, with board members representing all municipalities served. However, there is another possible reason for these

Table 1.
 Number of Water Authorities Having Specified Organization and
 Operating Characteristics in Pennsylvania, 1970

Municipality organizing authority	Municipalities served	Mode of operation		Total
		Leased back	Operated by authority	
Single municipality:	Organizing municipality	44	68	112
	Organizing and other municipalities	63	116	179
Subtotal		107	184	291
Two or more municipalities:	Organizing municipalities	0	3	3
	Organizing and other municipalities	1	3	4
Subtotal		1	6	7
Total		108	190	298

Source: Pennsylvania Department of Commerce, Bureau of Industrial Development, 1970 Statistics for Water Utilities, Release Number U-4-70, Pennsylvania Industrial Census Series, 1970, table 10, pp. 14-18.

authorities. Municipal water utilities serving "external" customers are subject to regulation by the Pennsylvania Public Utility Commission (PUC) on water sales outside the municipality. Such sales "shall be subject to regulation and control by the commission as to rates, with the same force, and in like manner, as if the services were rendered by a public utility" [9, pp. 26-27]. Further, discrimination in water rates are prohibited by Pennsylvania's Public Utility Law. However, a rate differential for "external" customers is not a sufficient basis for a charge of discrimination by a municipally owned water system. It is recognized that the residents of the municipality may be provided water at a rate below the full costs of providing the service in which case the remainder of the costs would be paid from general tax revenues [9, p. 98]. In substance, the rates for "external" customers must be "just and reasonable" in relation to the utility's costs of providing the service, and should not be compared with the rates charged within the boundaries of the municipality providing the services.

Authorities are seldom subject to regulation, even when serving "external" customers.^{4/} Therefore, a municipality that owns and operates a water system which serves customers in surrounding municipalities may avoid PUC regulation of these external water sales by reorganizing the water utility as an authority. There appears to have been such a trend in Pennsylvania in recent years. Further, there seems to be no specific regulation prohibiting authorities from practicing rate discrimination between customers within the authority-organizing municipality and its "external" customers. If such discrimination were practiced, the authority management could use excess charges from "external" water sales to subsidize the cost of water to customers within the organizing municipality. The possibility of such discrimination should be investigated, but such an undertaking was beyond the scope of this study. The "external" customers of an authority do have a means of legally questioning the rates they are charged for water. However, the process of bringing suit against the water authority constitutes a rather indirect control of rates. Such a procedure is less likely to deter discrimination than is continual scrutiny by the PUC as in the case of municipally owned water systems serving areas outside the municipality.

^{4/} Prior to 1971, the Pennsylvania Public Utility Commission (PUC) was considered to lack regulatory control over the facilities, services, or charges of an authority. The PUC formally disclaimed any control by order dated February 10, 1964, at I.D. 72, C 17892, Joseph N. Breston vs. City of Bradford. However, the Supreme Court of Pennsylvania recently ruled in the case of East Hempfield Township et al. vs. City of Lancaster and City of Lancaster Authority (No. 336, January Term 1970, Opinion of the Court, Filed: January 25, 1971) that due to the lease-back arrangement and conditions of the trust indenture, the utility service outside the corporate limits of Lancaster was subject to PUC jurisdiction. As a result, the PUC is now reviewing the situation of utility service outside the corporate limits of a municipality, when furnished by the municipality on a lease-back basis with an authority. A bill concerning this matter has been placed before the Pennsylvania Legislature.

More than 36 percent of the State's water authorities (108) are leased back to the organizing municipalities for operation and maintenance. For these, the managerial justification is not valid. Of the 108 authorities leased back, 107 were organized by single municipalities. For these, the only reason of the three usually cited that appears valid is the ability to obtain financing beyond the municipalities' constitutional debt limit. For the remaining 184 utilities, organized by single municipalities and operated by the authority, only the jurisdictional reason for their existence would not be valid.

Only three authorities are organized so as to encompass all the major reasons for authorities. These are the authorities organized by two or more municipalities, serving only the organizing municipalities, and operated by the respective authority organizations. An additional three might be included, even though they serve "external" customers. These six utilities -- about 2 percent of the total -- are the only ones that actually provide "regional" water service. The other multi-municipality systems are essentially operated on a vendor-customer basis outside the organizing municipality or municipalities. As such, they are no closer to being "regional" than are municipal water systems serving areas outside the municipality, or private water systems. In each case, the "external" customer has virtually no voice in the administration or operation of the utility nor in the pricing of the service. In fact, he is not protected by an institution such as the PUC, and his means of exercising control through the courts is rather indirect.

Summary

The authority form of organization has been rapidly adopted for providing public water facilities in Pennsylvania. As of 1970, authorities accounted for about 36 percent of both the number of systems and the total investment in public water facilities in the State. Although the authorities were exceeded in number by private water systems, they led in many respects, including total investment in facilities. During 1960-70, authorities increased most rapidly in the rural counties of Pennsylvania, in both relative and absolute terms.

Three major reasons are generally given for organizing water authorities: managerial, financial, and jurisdictional. An additional reason for the growth in authorities may be the desire of municipalities to avoid the regulation of water rates. This could have been a relevant consideration for the 179 authorities organized by single municipalities, yet servicing areas outside the organizing municipality. However, very detailed cost and revenue studies of these utilities would be needed to substantiate this contention.

This study did not indicate that managerial benefits were an important factor in organizing the authorities, as 108, or more than 36 percent of the authorities, were leased back to the organizing municipalities for operation and maintenance. The financial reason seemed to be the strongest rationale for establishing authorities. It would seem to be

the only one of the major reasons applicable to the 107 authorities organized by a single municipality and leased back for operation and maintenance.

Based on the characteristics of the authorities reporting in 1970, the jurisdictional advantage did not seem important. Only 7 of the 298 authorities reporting were organized jointly by two or more municipalities. Thus, many communities in Pennsylvania are not benefiting from the major asserted advantage of this type of organization -- the ability to cooperatively participate in providing a public service within an area "economically but not politically unified" [2, p. 19]. Perhaps the enabling legislation for authorities should be amended to require, not just permit, joint authority organization when the facilities are planned to serve two or more municipalities. In this way, a more truly regional service would result.

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