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ноw то GET Sewage Treatment Works IN OHIO

A guide describing recommended step-by-step engineering and financial procedures



OHIO DEPARTMENT OF HEALTH and OHIO RIVER VALLEY WATER SANITATION COMMISSION

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A guide describing recommended step-by-step engineering and financial procedures for Councilmen, Mayors and City Managers, Service Directors, Solicitors and Fiscal Officers, Engineers and Public Spirited Citizens interested in clean waters

OHIO DEPARTMENT OF HEALTH and

OHIO RIVER VALLEY WATER SANITATION COMMISSION

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Why Is Seuage Treatment Necessary?

Sewage treatment is necessary to protect public health. When sewage containing foul concentrations of human-body wastes—is discharged without treatment to your rivers, the health of your citizens and of your downstream neighbors is threatened. And of vital concern to you is the fact that the health of the people in your community is menaced by raw sewage in the river or lake serving as the source of your water supply.

The public-health significance of water pollution caused by contamination with raw sewage is this:

1 Sewage consists of human excrement containing millions of bacteria, some of which cause disease.

2 Untreated sewage is discharged directly into rivers and lakes from incorporated communities representing about 35% of Ohio's population.

3 Inadequately treated sewage is discharged from incorporated communities representing about 47% of Ohio's population.

4 Adequately treated sewage is discharged from incorporated communities representing about 16% of Ohio's population.

5 About 2% of Ohio's incorporated-community population is not served by either water or sewage works.

6 More than 75% of the people in Ohio depend upon water from rivers and lakes for their public water supplies.

7 All of the municipalities depending on rivers and lakes for water supplies are protected by good water-purification plants. But these plants are limited in their capability to make surface waters safe for human consumption and to remove intestinal irritants from water.

8 The pollution loads of your rivers and lakes are so high that abnormal amounts of chemicals are required for treatment of these polluted supplies. False safety—Water-purification plants from a public-health standpoint are the last line of defense in providing you with water free of contamination. These plants, as good as they are, are limited in their capacity to

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ABOUT WILDLIFE AND RECREATION

Most people today are aware of the public-health significance of sewage pollution. As a moral and public responsibility municipalities must treat sewage before it is discharged to rivers or lakes.

When the *public health* is safeguarded by adequate sewage- and waste-treatment works in every community, then and only then will fish and wildlife and recreation also be protected.

remove disease "bugs" from polluted water and may be unable to remove toxic or poisonous matter that may result from heavy pollution. Sometimes the rivers and lakes carry too much pollution; then the "bugs" and toxic matter can slip through the water treatment defenses into your drinking water.

This has happened. Many outbreaks of sickness in cities using treated (and supposedly purified) Ohio River water were caused—during the severe droughts of 1930 and 1934—by toxic material resulting from bacterial decomposition of solids and other organic matter. The water-purification plants just couldn't remove all the intestinal irritants. The result: Whole groups of people became ill.

Let's not forget or be indifferent to this fact: Water pollution is much worse now. Our streams are not getting any cleaner. They are becoming more and more foul. Our cities and industries are growing rapidly; they continue to spew out ever-increasing quantities of untreated wastes into our rivers and lakes.

Waste treatment is, therefore, the only way by which your barrier of health protection can be maintained. Waste-treatment works are now an essential element in providing you with safe drinking water.

Until every community accepts its responsibility for waste treatment, you and your children are facing—each day—more serious health hazards than those of the 1930's. "It's later than you think!" What are you going to do about it?

Who Will Have To Build Treatment Works?

Cities, villages, counties and all other political subdivisions (as well as industries) now discharging foul, harmful or potentially harmful wastes must treat their wastes before discharge to your rivers and lakes. This is a requirement of the recently enacted state law. This means that your municipality and all the other communities discharging wastes on your watershed are going to have to spend money to build treatment works. And these treatment works will have to be built soon. The public health hazard inherent in water pollution will not be permitted to threaten your well-being any longer.

When communities spend money for public improvements, you as a benefited citizen are going to have to pay your share. Your share as an individual will be about two to three cents a day. This is indeed a small price to pay for protection against water-borne diseases.

Behind the cleanup—Current action for pollution abatement is the result of a "grass-roots" clamor for clean waters. This demand has been given force by passage of increasingly restrictive laws requiring treatment of all sewage before discharge to waters of the State.

Ohio's approval of the Ohio River Valley Water Sanitation Compact became effective in 1948. This was quickly followed by state enforcement acts in 1949 and 1951.

Now two powerful agencies are pushing the public-demanded drive for stream cleanup through construction of treatment facilities by municipalities: Ohio Department of Health and Ohio River Valley Water Sanitation Commission.

First responsibility for pollution abatement within the state borders lies with the Water Pollution Control Board, an arm of the Ohio Department of Health. The in-state program for construction of treatment works is being pushed with determination as a result of the passage of a strong anti-pollution law in 1951. **This law** (The Water Pollution Control Act-Sec. 1261-1a *et seq.*, General Code of Ohio): **Gives** the Pollution Control Board power to issue, modify or revoke orders, after public hearing; to issue, and to revoke or deny after public hearing, permits to discharge waste into public waters; and to institute action in proper courts to compel compliance with orders of the Board.

Makes it unlawful, one year after the effective date of the act, to pollute public waters, except under a permit issued by the Board, this section becoming operative on Sept. 27, 1952.

Makes polluting of public waters a misdemeanor and a public nuisance, punishable by a fine up to \$500 and one year in prison. After conviction, a new offense would occur each day of continued violation.

Standing behind the Ohio Department of Health is the Ohio River Valley Water Sanitation Commission whose authority has been sustained by the U.S. Supreme Court. The Commission has authority over interstate

DEFINITION OF TERMS

To understand this subject better, here are definitions of some terms used in this handbook:

Sewage is bodily discharges from human beings plus other domestic wastes.

Industrial wastes are liquid or solid discharges from any manufacturing operations or processes.

Sewerage is the system of sewers and appurtenances for collection, transportation and pumping of sewage and industrial wastes.

Sewage-Treatment Plant means structures and equipment by which polluting substances of sewage are removed or reduced.

Sewage Works means the sewerage system and the sewagetreatment plant.

Sewage-works Utility refers to the business organization which manages and operates all of the sewage works.

waters in the Ohio River basin, and its task is to serve as the coordinating agency through which states can establish uniform "rules of the game" for waters that border upon or flow through two or more states.

The minimum requirements set up in the Compact for treatment of municipal wastes are:

All sewage from municipalities shall be treated so as to remove substantially all of the settleable solids and not less than 45% of total suspended solids. Higher treatment may be required in some localities to protect the public health or preserve the waters for other legitimate uses.

Among other things, each of the eight participating states in the Ohio Valley pledges to the other states that it will enact laws needed to enable it to comply with the Compact requirements.

Ohio has met its pledged obligation by enactment in 1951 of the "Water Pollution Control" law.

Who comes first? Pressure for construction of treatment works by persuasion, or compulsion where necessary, will logically be brought to bear in this order:

- Cities discharging raw sewage including those with totally inadequate treatment works;
- 2 Cities requiring increased treatment-plant capacity or additional degree of treatment;
- 3 Villages discharging raw sewage including those with totally inadequate treatment works; and
- 4 Villages requiring increased capacity or additional treatment.

Note: Industries will concurrently be required to take action and be given attention in the order of importance of their polluting discharges.

Retain A Consulting Engineer

When a city or village undertakes a sewage works project, the first step is to retain a consulting engineer. This consultant should be of high professional caliber and should have demonstrated competence in sanitary engineering with specific experience in design and construction of sewers and sewage-treatment works.

No price-cutting—Reputable, high-caliber consultants will not compete for design and construction supervision of an engineering project on the basis of their fee. Professional ethics condemn price competition.

Retaining an engineer is just the same as selecting your doctor: You don't haggle about his fee; you employ him for his knowledge and experience; you have confidence in his knowledge, experience and honesty; you depend on him. All this is not related to his fee. It's a personal relationship based on the professional man's ability to render a service.

When you retain an engineer, you're not buying a product. You are engaging an expert for his know-how and skill. You are engaging a specialist to represent your municipality on a particular project. The engineer's duty is to make sure that you get the "best" treatment plant for the "least" amount of money. If you seek to retain an engineer on the unethical basis of fee competition, the chances are that you'll get just as little as you pay for.

Look to his experience—You must, of course, have a measure of an engineer's competency to do the job facing your community. An experience record of projects designed, constructed and in operation as well as summaries of the training and experience of partners and key assistants will give you an insight into the competency of the firm you are considering.

If an engineer has no ready list of projects or finds it is inconvenient to give you the names of other clients—then beware. He should be willing to stand on his record of projects completed.

Reputable engineers quickly and courteously furnish their experience

records. They are proud of their work; they don't hesitate to aid a possible client in looking into the work they have done before.

You should also investigate the engineering firm's ability to get out your plans and specifications in a reasonable length of time. Does the organization have adequate professional assistance and facilities? Is the organization already overloaded with work?

Check up on your engineer! Visit the projects the engineer has completed! Talk to other clients for whom he has worked!

What the engineer does—The consulting engineer is the key expert in getting sewage works built. His contributions are, in general terms, to define the local sewage problem, to work out an effective, economical treatment solution and to estimate the project cost. He also provides a number of related services.

Your agreement with the consulting engineer should stipulate that a general report on the proposed sewage works be prepared. This report should include:

1 Preliminary study of the existing sewer system with recommendations for needed improvements.

DEAL DIRECTLY WITH YOUR ADVISERS

The unit of government that sponsors a public-works project is the owner. The various professional consultants and firms who provide particular services in connection with these projects are retained directly by your local government.

The consulting engineer, for example, should not bring in a bond house. The bond house should not hire an engineer to do work on a sewage works project. If this is done, it suggests collusion.

Retain all your professional services! Make them directly responsible to you! 2 Preliminary study of sewage-treatment problems—such as capacity for present population and future growth of the community, and the best type of treatment to satisfy state requirements.

3 Preliminary study of significant industrial wastes with recommendations for pre-treatment, if desirable.

4 A general plan of the proposed construction and an estimate of cost of the project (construction as well as operation and maintenance cost).

5 Discussion of possible alternate plans and recommendation of a specific plan.

A step-by-step outline of

LEGISLATIVE AND ADMINISTRATIVE PROCEDURES

To get your sewage-treatment works built quickly and at the least cost calls for close cooperation of your council, mayor, city manager, solicitor, bond counsel, fiscal officer, service director and city engineer. This is the suggested procedure:

Retain a consulting engineer

who Makes a preliminary study and report of the treatment problem;

Recommends a general plan for the treatment works (The general plan will be submitted by your municipality to the Ohio Department of Health for approval);

Assists the municipality in financial planning;

Prepares construction plans and specifications after the general plan has been adopted;

Advises on proposals, analysis of bids and award of construction contracts;

Supervises construction;

6 Suggestions as to construction schedule and service charges that may be needed to finance the project. The engineer is not a substitute for your financial advisor but the engineer can aid the financial advisor.

7 One or more recommended treatment-plant sites.

The consulting engineer will have to work closely with your city engineer. It is essential that this relationship be harmonious and productive.

What happens to the general plan?—After the consultant presents his report with recommendation as to a specific sewage works plan, your council

Approves partial and final payments to contractors; Puts plant into operation and trains operators.

Arrange to finance your project

Retain expert bond counsel; Select a financial advisor; Adopt a sewer-rental ordinance; Pass bond legislation.

Acquire a treatment-plant site

Purchase; Option; Condemnation.

Award a construction contract

Adopt a construction schedule; Advertise for bids; Analyze the bids; Make the contract awards.

Employ competent operating personnel

Meet requirements of Ohio Department of Health; Employ operators during construction so that they become familiar with the plant when all details of installation can be observed. or governing body must act to adopt (or reject) this plan. Adoption makes the general plan a part of the official policy of your government.

But—before proceeding further the plan must be submitted to the Ohio Department of Health for approval. State law requires that this department must approve all plans for sewage works prior to construction. The wise engineer will work closely with the Ohio Department of Health as he develops a plan. Many obstacles can be avoided by such cooperation.

When this approval is secured your local government should authorize your solicitor (or others) to secure an option on the plant site. After acquisition is assured, authorize and instruct your consulting engineer to prepare detailed plans and specifications for construction.

Money for planning—Funds for the engineering investigation and planning may not be readily available. Money to retain your consulting engineer can be obtained in several ways: From general tax funds; from sewer-service charges; or from general-obligation bonds and notes within the 10-mill limit issued solely for payment of engineering services.

All professional-service fees including engineering, legal, financial, advertising as well as interest during construction are parts of the total project cost. These costs may be included in calculating the total amount of mortgage-revenue bonds to be issued.

Federal funds on a loan or grant basis are no longer available for engineering planning or for construction of sewage works.

Payment for services—The consulting engineer's service is divided into three parts:

1 Preparation of a general plan that outlines the whole program and provides a basis for preliminary approval by the state.

2 Preparation of detailed plans and specifications for construction. These provide the basis for final approval by the state.

3 Supervision of construction and initial operation of the plant.

The agreement for engineering services should provide for final payment to the consultant for the preliminary plan and for the detailed plans when each of these are accepted by the municipality and approved by the Ohio Department of Health. Fees for supervision are paid monthly as construction progresses.

Fees charged by reputable engineers are usually based on schedules established by the Ohio Society of Professional Engineers, 40 W. Gay Street, Columbus.

Plan Your Financing

"How are we going to pay for our sewage works project?" That's the question that you as a municipal official are going to worry about most. The legal, engineering and construction problems can be solved by your experts with comparative ease, but you don't have to be told that finding money to finance a project is always your biggest headache. You face this problem every day in the management of your community's affairs.

Consider financing early—Consideration of your financing problem cannot be sensibly taken up until the probable cost of your sewage works project is known. The first authentic cost estimates will come with the consulting engineer's report and general plan.

At that time you should take steps to engage a financial adviser. He should be authorized to proceed with the development of a financial plan and to submit his recommendations to your council by a specified date.

Don't delay in getting your financing under way!

Choosing a financing method—The final decision as to how a municipality will finance its sewage works must be made by your council. The council will have to depend on the financial adviser, bond counsel, consulting engineer, solicitor and fiscal officer for guidance.

For such a complex problem, you may find it advantageous to refer the financing problem to a committee of the council. This committee would then study the problem and submit recommendations for council action.

The council must have two distinct types of specialized advice in working out its financial program: Legal and financial. This advice will come from a bond counsel and a financial adviser.

Bond counsel—You must have guidance to insure the legality of your bonds. This guidance is best provided by an experienced, nationally known bond counsel. The bond counsel should be retained immediately after the general plan has been adopted by your governing body.

The bond counsel does not replace your city solicitor. The counsel supplies three essential specialist services:

1 He prepares all legal documents for the bond issue, including the mortgage indenture, if any.

2 He guides official procedure for adoption of ordinances and all legal steps to assure validity of the bonds; and finally

3 He renders a formal approving opinion to the purchaser of the bonds.

Get a financial adviser—Financing a sewage-works utility calls for skilled financial advice and competent service. It's a specialized business, perhaps even an art, in which your municipality should have the guidance of an expert financial adviser. You must have confidence in him and be able to depend on him for direction on all financial matters for this project.

One caution: Do not call in a large number of financial advisers. Contact a selected few of them, and your problem of selecting one firm to handle your financing will be simplified.

To judge the experience and competency of a financial adviser, ask him to give you a record of the communities he has served financially. This record of service tells you how much experience he has had, the size of communities he has served, and to whom you can go for an opinion on the type and quality of his services.

Financial advisers are retained by agreement. They provide a service; they will not ethically compete on the basis of price to handle your financial problems.

What your financial adviser does—The duties of your financial adviser, where mortgage revenue bonds are involved, are:

To determine the best plan for obtaining capital funds for your sewage works project. All custom-made details must be worked out. These include: Amount and type of bonds to be issued; times at which bonds will mature and amount of bonds maturing each year; security pledges behind the issue; conditions under which additional bonds may be issued; mortgage indenture; paying agent and terms of payment to agent; and method of paying expenses of financing. Your municipal council, local officials, bond counsel and consulting engineer must be satisfied with this plan.

To consult with the bond counsel, who prepares, in cooperation with your solicitor, the enabling legislation under which the bonds will be issued. The bond ordinance, which must be adopted by your municipal council, includes an indenture. This indenture in addition to other items states: The covenants your community makes to insure sound operation of the project, maintenance of adequate service charges as long as any bonds are outstanding, employment of consulting engineers to protect the bondholders' equity in the project, publication of periodic earning statements and all other essential pledges.

To prepare the official statement by which the revenue bond issue is to be submitted for bids to prospective purchasers. The official statement details all essential features of the bond issue: Facts on your community's economy, debt history, current problems, character of its people and its growth potential; and explains the project with a summary of the consulting engineer's report on costs of construction, operation, maintenance and expected revenues. A schedule of projected revenues and expenditures suggests how much protection (coverage) there will be for annual principal and interest requirements.

To build favorable public relations for your community among prospective purchasers of bond securities. Proper presentation of information on your bond issue can save your municipality money.

The official statement must be distributed to bond dealers and underwriters who will bid for the securities and who determine the price you will get for your bonds.

National credit-rating agencies, who will report to their clients on the bond issue, must receive all essential details of the issue.

Newspapers and trade journals should carry favorable publicity. This can be encouraged by supplying all pertinent data on the issue.

To advise you in selecting the proper time, date and conditions for the sale of your bonds. Knowledge of the bond market, its operation, psychological effects on bond marketability and probable future condition of the market are necessary to get the best price for your bonds.

Bond houses sometimes serve as financial advisers although their principal interest is in buying the bonds. A bond house, serving as your financial adviser, may act through agreement with your council for a fee based on a percentage of the total amount of bonds to be issued. Under this procedure, the bonds are offered to bond houses for competitive bids. The financial adviser will usually be given the right to make a bid for the bonds when they are ready for sale.

Some bond houses prefer to negotiate a contract for their financial

advice and services including the purchase of all your bonds at a specified price and rate of interest.

If, after securing complete financial advice, it is determined that no mortgage revenue bonds are to be included in your financing program, the further services of your financial adviser probably will be needed no longer.

When general obligation bonds are to be the foundation of your financial program, the procedure for their issuance is prescribed in detail by statutes.

Competitive bidding for bonds—General-obligation bonds must be sold through competitive bidding under Ohio law; mortgage-revenue bonds, however, may be sold privately.

The law requires that general-obligation bonds first be offered to your sinking-fund officials. If they reject the issue, the bonds must be advertised for sale and competitive bids taken to obtain the lowest net interest cost.

Most municipalities consider it best to put their bonds up for competitive bidding regardless of whether the law requires it or not.

Negotiated sale of bonds—Some bond houses may wish to buy your bonds under a private agreement which eliminates competition. Such a sale should be approached with caution.

Bond houses offering private agreements will purchase all of your bonds at a negotiated price and at a specified rate of interest. They also may be willing to perform all of the adviser's services as part of the bond-purchase price.

A negotiated sale means that you are throwing away any possible advantage of open competitive bidding. There may be very good reasons for a negotiated sale of bonds but be sure that your reasons are sound and above reproach!

Cooperation essential—To have a successful financing program, your consulting engineer, your bond counsel and your financial adviser must work together. Their cooperation will assure the best combination of all factors contributing to a sale of the mortgage-revenue bonds on a basis attractive both to the municipality and the bond buyer.

This team will tailor-make your financial program to fit the needs of your community.

Types of Bonds and Their Application

There is a way, fortunately, by which your sewage works can be financed without resort to real-estate taxation. An Ohio statute permits a municipality to charge for sewer service. Funds collected under a schedule of sewer service charges are pledged first for operating your sewage works and maintaining them in good condition. The money not required for maintenance and operation can be assigned to pay off bonds issued for the construction of a sewage works. Yes, the sewer rental law makes it possible for you to finance your project by mortgage-revenue (MR) bonds.

Financing may be by two other methods which involve the taxing power of your municipality: General obligation (GO) bonds or special assessment (SA) bonds.

Sometimes it is possible and desirable to utilize a combination of the three types of bonds. Consultation with your financial adviser, consulting engineer and legal advisers will result in selection of the best method or development of a combination of methods that will best suit the needs of your municipality.

There are, however, obstacles to the successful use of any single one of these methods: The amount of MR bonds is limited by the net earnings of the system plus the ability to sell these bonds on the basis of net earnings; the amount of GO bonds that can be issued is limited by the Uniform Bond Act; and the amount of SA bonds is restricted by the indirect debt limit created by the constitutional tax limitation.

Mortgage-Revenue bonds—When an income-producing utility, such as your sewage works, is to be constructed, you will do well to look into the possibility of using MR bonds for financing the works. The basic principle of revenue bonds is that users of the utility pay for the service rendered as well as for the sewage works. You'll discover under Ohio's constitution and laws as well as municipal financing conditions that MR bonds will, in some situations, satisfy your needs better than either GO or SA bonds. MR bonds have no tax restrictions or statutory-law limitations on the amounts that can be issued. No taxes to repay them are levied. The faith and credit of your municipal corporation are not pledged in support of these bonds.

But the security pledged for repayment of MR's is a mortgage on your utility and its earnings. The mortgage indenture (the contract terms under which the bonds are issued and which accompanies the bonds) includes a franchise permitting the bondholders to take over the sewage works utility and operate it for a period of 20 years in event of your failure to

How Mortgage Revenue Bonds Are Issued

WHEN you have determined the amount of MR bonds required for your project . . .

WHEN the terms and provisions for these bonds have been worked out by your expert consultants . . .

WHEN these terms and provisions are satisfactory to your municipal officials and attractive to investors, then . . .

THIS PROCEDURE IS FOLLOWED:

1 Your municipal council adopts an ordinance authorizing the bonds as well as execution of an indenture to secure these bonds.

2 Your municipal council adopts a sewer-service rate-schedule ordinance.

Note: Both of these ordinances ordinarily are prepared by your bond counsel in cooperation with your solicitor, financial adviser and consulting engineer. The ordinances may be subject to referendum. If you are proceeding to acquire, construct, own, lease or operate a completely new public utility, the ordinances are subject to referendum under the Constitution. These ordinances may be properly passed as emergency measures if they are not subject to referendum under the Constitution.

3 Your bond counsel prepares the indenture and bond form. These documents are reviewed by your financial adviser, solicitor and other officials connected with your sewage works program.

4 Your solicitor arranges for the title evidence. A part of the transcript, this evidence is the basis for the approving opinion covering the bonds.

pay the principal and interest on the bonds when due. Provision is also made in the indenture for appointment of a receiver to operate the system in event of default of these payments.

Because the MR bonds are payable only from the revenues of the sewage works utility, your municipality will normally pay a higher rate of interest than it would on GO or SA bonds.

The only limit to the amount of MR bonds which can be issued is the amount that bond buyers are willing to purchase. This is based on the estimated net earnings of the system and other economic factors.

5 If bids for the bonds are to be obtained, advertisements for them must be published or other notice given. Interested bidders then submit their proposals for consideration of your council and for award.

6 The bonds are printed and sent to your municipal officials for execution and sealing.

7 A complete transcript is prepared containing a record of the proceedings, certified copies of the ordinances and minutes of council actions, proofs of publication of ordinances, proceedings for the sale of the bonds, specimen bond and other documents required by bond counsel.

8 The indenture is completed and signed by the proper municipal officials and by the corporate trustee who has been selected and who has approved the form of the indenture.

9 When all is in readiness, the executed bonds are delivered accompanied by the non-litigation certificate and the treasurer's receipt. Then the purchase price with accrued interest is paid to your fiscal officer.

Your financial officers must understand thoroughly the terms and provisions of the bond ordinance and the indenture.

Your management men who will operate the utility must also understand these documents. This is essential because management will provide for the segregation of funds, for the handling of certain funds for the mortgage trustee and for periodic accounting and reports. Sales appeal—Your success in marketing the MR bonds is dependent primarily on their sales appeal. Attractiveness depends on many limiting factors: Number of service connections; cost of service; general prosperity of the community; adequacy of revenues to assure payment of principal and interest as bonds mature; "the amount of coverage"—the amount by which the net earnings of the system, before debt charges, exceeds the debt charges; call provisions, if any; provisions in the indenture that protect the bondholders; and effectiveness with which the bond salesman is able to present his "merchandise" to the final bond purchaser.

When the amount of debt required to finance your sewage works project is so large that net earnings will not be sufficient to defray the costs of maintenance, operation and debt service on bonds, you must consider issuance of GO or SA bonds in addition to the MR's to pay part of the project cost.

Mortgage-revenue bonds are authorized by action of your municipal council. The procedure for issuing these bonds is detailed in the outline, "How Mortgage-Revenue Bonds are Issued," page 18.

Emergency adoption of ordinances—When you are about to improve an existing sewage works utility, your municipal council can determine, if reasons warrant it, that an emergency exists. The council can then pass the MR bond and sewer rental ordinances as emergency measures. These measures are not subject to referendum under emergency adoption.

The 1951 water pollution control law, which puts heavy pressure on municipalities and industries to clean up their wastes problems, creates emergencies for most municipalities. Your sewage works financing probably can be done under the emergency clause. This procedure, however, is legally complicated; you will do well to get sound advice on financing under the emergency clause.

Charge for service—Funds for retirement of MR bonds are collected from the users of the sewage works system. Under your sewer-rental ordinance, service charges, collected monthly or quarterly from the users, provide operating and bond retirement funds.

Sewer rental ordinances in Ohio can be adopted and put into effect by a vote of the municipal council. A vote of the electors is not permitted or required if the ordinance is passed properly as an emergency measure and is not subject to referendum under the Ohio constitution.

Sewer rental ordinances can be put into effect immediately upon adop-

tion of the financing plan and far in advance of actual construction. If you already have a sewer-service charge, it can be increased sufficiently for financing the project.

New rates can be immediately set high enough to pay for operating costs and to retire the bonds. Less-than-full rates, on the other hand, can be scheduled in the beginning with provisions for automatic increases as improvements are completed. It's "smart" financing to start with a high rate and accumulate a fund to pay for part of your project. This will reduce the amount of bonds you will have to sell.

Also, if you establish your sewage works utility as an income-producing business at an early date, you will build a record of earnings that will improve your ability to sell the bonds.

Types of sewer-service charges—You can establish a sewer-service charge (sewer rental) based on various measures of the service rendered. While there are several variations, these bases for sewer-service charges are most commonly used in Ohio:

Water consumption

Metered use Percentage of the water bill

Flat rates

Number and type of plumbing fixtures

Type of property

Number and size of sewer connections

The water-consumption base most nearly measures the service rendered. Flat rates may have to be used where water consumption is not metered.

You must make provisions for adjusting inequities in all methods of computing rate schedules for sewer-service charges. Adjustments may be made for character and strength of industrial wastes and for large volumes of water that do not enter the sewers. Provision for these adjustments are made in the rate ordinance.

You can get information on sewer-rental schedules from the Ohio Department of Health, your consulting engineer and your financial adviser, and information on the forms of ordinances from your legal adviser.

General Obligation bonds—Sewage works projects also can be financed by general obligation bonds. Taxes will not be raised if the earnings of the system are sufficient to pay all operating expenses of the sewage works as well as the principal and interest on GO bonds to be issued. Statutory limitations on GO bonds, however, may prevent your council from employing this method of financing exclusively; an issue of MR bonds may be required to complete your financing program.

GO bonds are backed by the full faith, credit and taxing power of your municipality. They must be issued within the statutory limitation of the Uniform Bond Act.

In computing the net debt of your municipality, you can exclude the amount of sewage works bonds which can be retired from current net earnings of the utility after paying all of the expenses of operation of the sewage works utility. This exclusion requires a record of net earnings; future estimated earnings are of no value.

Bonds, which must be issued within the debt limitation because there is no record of earnings, can be excluded from the net debt only when actual earnings are sufficient to pay for these bonds.

The statutory limitation on GO bonds issued without a vote of the people is 1% of the total assessed valuation (tax duplicate) of your municipality. When authorized by a vote of the people the limitation is 5% of the duplicate.

Bonds not voted by the people are further restricted. This is important; it is called the indirect debt limitation. There is a state constitutional tax limitation of ten mills on the dollar of the total assessed valuation of property that may be taxed by your municipality and by all overlapping subdivisions, such as unvoted county and school district bonds. This is the indirect limitation: The tax levied—to pay the total amount of the principal and interest payable in any year on the proposed unvoted bonds, on other unvoted existing bonds and on other unvoted bonds of all overlapping subdivisions—cannot exceed 10 mills! All unvoted GO bonds must be totalled in making this calculation even though they are payable primarily from special assessments or from utility earnings. This indirect debt limitation is the result of the so-called Portsmouth decision by the Ohio Supreme Court; it is referred to in Appendix IV.

Watch your step—You must exercise caution in issuing unvoted bonds because their tax burden will affect the amount of tax money that your municipality will have available for operation. Municipal charters, in addition, may place additional restrictions on existing bonds as well as on other bonds, on the method of making public improvements and on granting of franchises. Such restriction will apply only to a particular city or village. Ask your solicitor to study your city charter for special HOW GO AND SA BONDS ARE ISSUED These steps are required for the issuance of both GO and SA bonds:

1 A resolution—stating the amount of the proposed bond issue and requesting your fiscal officer to certify the estimated life of the improvement and the maximum maturity—must be passed.

2 The fiscal officer makes out a certificate satisfying this resolution.

3 The bond ordinance is prepared by your solicitor or by the bond counsel in cooperation with your solicitor.

4 The sewer-service rate ordinance is passed. This establishes new rates or changes the old ones to conform with the policy of your municipal council.

5 The bond issue must then be offered for sale to your sinking-fund trustees or officer in charge of the bondretirement fund. Acceptance or rejection of this offer must be recorded.

6 If the bond issue is rejected by such trustees, or officer, it is advertised for sale for three consecutive weeks. Bids are then taken from which the lowest net interest cost is determined.

7 The bonds are awarded by your municipal council to the highest bidder, based on the lowest interest rate.

8 The bonds are printed, executed and delivered in accordance with the contract created by the resolution awarding the bonds. Note: Before the bonds are delivered, a complete transcript of the proceedings of the council must be prepared, to enable the bond counsel to render a favorable opinion upon the legality of the bonds to the purchaser. SUMMARY OF MUNICIPAL BOND FINANCING METHODS

Type of Bond Common Terms	Issuing Authority	Statutory Debt Limitation	Constitutional Tax Limitation	What Is Pledged in Support of Bonds	Source of Income to Pay Principal & Interest on Bonds
General Obligation	Municipal Council	1% of total assessed valuation of property unless self-supporting	10-mill	Full faith and credit of corporation	Direct tax levy and/or revenues of utility
Bonds (GO bonds)	Municipal Council after approval by electors	5% of total assessed valuation of property unless self-supporting	None	Full faith and credit of corporation	Direct tax levy and/or revenues of utility
Special	Municipal Council	None; Not included in net debt	llim-01	Full faith and credit of corporation and special assessments	Special assessments; tax levy for any deficiency
Assessment (SA bonds)	Municipal Council after approval by electors	None; Not included in net debt	None	Full faith and credit and special assessments	Special assessments; tax levy for any deficiency
Mortgage Revenue Bonds (MR bonds)	Municipal Council (in some cases subject to referendum)	None; Not included in net debt	None; No tax involved	Income of utility Mort- gage on utility property with franchise to operate in case of foreclosure	Revenue of utility

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limitations that may alter the issuing procedure in your particular case.

If it is necessary to submit GO bonds to the voters, a 55% favorable vote is required to authorize the issue. The vote can only be taken at the regular November election.

Failure of your electorate to approve a necessary issue of GO bonds will not relieve your municipality of its obligation to build and operate sewage-treatment works.

Limits on GO bonds—While GO bonds probably will command a lower rate of interest than MR bonds, you will find that they are of limited application in the average sewage works financing program. The statutory limit on indebtedness, the effect on available operating revenues from taxation, and the delay and uncertainty of approval by electors at a November election often eliminate GO bonds from serious consideration in your program.

Special Assessment bonds—Bonds repaid by the owners of benefited properties within corporate limits are special assessment bonds. They are a full liability of the issuing municipality but are payable primarily from assessments against the improved properties.

SA bonds are not included in the net debt of your municipal corporation. This brings them outside of the statutory limit on the amount of bonds that may be outstanding, but *they are subject to the indirect debt limitation*. When the supporting assessments are not collected, your municipal council must levy a general tax for payment of principal and interest on SA bonds.

SA bonds are best applied in providing funds for construction of street or collector sewers that benefit particular properties.

Sewage-treatment plants cannot be financed with SA bonds. Trunk and interceptor sewers are sometimes partly or wholly financed by such bonds.

Your solicitor should investigate the application to your needs of the law concerning special assessment bonds.

One important limitation is that the amount of any assessment cannot exceed one-third of the value of the property and its improvements after the sewer is constructed. There is one exception to this: Property owners who petition for an improvement and waive the limitations of the statute.

WHAT ONE CITY DID

a common case

A Summary of Financial Facts Relating to the Sewage Disposal Project, Mount Vernon, Ohio

Populatio	m:	• • • • • • • • • • • • • • •	
Assessed	valuation:		 \$14,000,000

- Characteristics of the city: Highly industrial. Experiencing steady growth. Some well developed areas adjacent will probably become tributary to sewerage system soon.
- Existing water utility: Municipally owned and operated. 3,813 users in 1950 produced annual revenue of

87,342

Mortgage revenue bonds for water improvements were issued in 1950 in the amount of \$765,000 and water rates revised and increased to produce about 50% more revenue than in 1950.

Existing sewage works: Community served by a system part of which is combined storm and sanitary and part is separate sanitary sewers. About 3,100 connections. An inadequate and obsolete sewage treatment plant serves only a small part of the city. *Project description:* Construction of interceptor sewers and a complete sewage treatment plant at a new location. Old plant to be abandoned.

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Financing: Available funds accumulated from sewer-utility revenues	\$45,000	
Bond Issue—Sewerage system first mort-	,,	
gage bonds. Maximum maturity 1981. It-		
terest rate 2.82%. Sold at a premium of		
\$1,999. Bonds callable after 1960	990,000	
Sewer-service charges : Anticipated revenue from		
3,200 services in 1950		80,000
The sewer service charges are designed to		
provide about 40% coverage above annual		
operating and debt service requirements		
Annual operating costs when plant started		25 000
estimated at		23,000
Rates: For domestic service. 85% of water	10 55	
bills. Minimum annual charge	13.75	
For commercial service 100% of water bills.	100	
Minimum annual charge	53.00	
For special businesses, including dairies,		
breweries, meatpacking, canning facto-		
ries, etc. 200% of water bills.		
Minimum annual charge	110.00	
For heavy industries.		
(50 or more regular employees)		1
Per employee per year —		
First 50 employees	0.75	
51 to 100 employees	0.60	
101 to 200 employees	0.50	
All over 200 employees	0.40	
Additional charges are made for air con-		
ditioning and cooling services.		

WHAT ANOTHER CITY DID

an extraordinary case Summary of Financial Facts Relating to the Sewage Disposal Project, Blanchester, Ohio

Population:	2,100
Assessed Valuation:\$	2,300,000
Water Utility: Owned by Municipality.	
650 users—Annual Revenue	14,700

Existing Sewers: Only the main street sewered. A septic tank provided partial treatment of sewage.

The Project: Sanitary sewers for entire village and a complete sewage-treatment plant.

Note: The MR bonds were issued to bear $3\frac{1}{2}\%$ interest and were sold at a discount so that \$424,000 worth of bonds were issued which yielded \$400,000 to the village. The actual cost of money including the discount in this case calculates to about 3.93%.

Sewer-service Charges: Two times the water bills. This amounts to an average of \$45.28 per service connection per year and will yield about \$29,400 per year on the basis of the present number of water users and their past water bills.

A charge of \$5.00 per year per vacant lot is also made. The yield from this charge and from future growth of the community is not figured in the above annual yield of sewer charges. If surplus funds accumulate, bonds may be redeemed before maturity after the first 10 years.

Basic data needed for selection of a method for FINANCING SEWAGE WORKS FACILITIES

Present and future population of the municipality Appraised tax valuation of your municipality

Percentage of valuation attributed to industry Tax value of industries having significant industrial wastes

Determination of debt limits of your municipality Sewage flows for your municipality

Volume of domestic sewage

Volume of industrial wastes

Strength of domestic sewage

(Biochemical oxygen demand and suspended solids)

Strength of industrial wastes

(BOD and SS and toxicity)

Water consumption of the municipality

Number of services

Annual revenue

Are the services metered or unmetered

Extent of use of private water supplies

Water utility publicly or privately owned

Charges for water and what is the method of collection Types of industries tributary to the sewage works

Characteristics and volumes of industrial wastes from each plant

Detailed estimate of cost of sewage works facilities

Extent of sewers to be built under the project

Probable useful life of proposed facilities

Estimated cost of operating and maintaining proposed sewage works

Estimated interest rates for general obligation and for mortgage revenue bonds.

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Doing the Job

ASSURE ACQUISITION OF A TREATMENT-PLANT SITE

Now that you have an approved program, the next step is to make sure that your municipality gets control of the treatment-works site upon which the program is based. In fact, your municipality must own the site—or hold an option on it—before preparation of detailed plans and specifications is authorized by your council. If you fail to get the site, your city will be faced with having to do a lot of engineering planning and design over again. That's a waste of time and money.

Your city solicitor will have to carry the burden of obtaining the rightsof-way and sites. He knows how to do it but he will be well advised to look into superior property rights, especially along rivers and lakes. The state and conservancy districts, for example, have rights of eminent domain that precede those of municipalities. The state highway department may have plans for the site you want. The U. S. Corps of Engineers must grant a permit for construction of outlets to navigable waters.

Get it soon—There are sound reasons why a sewage-works site should be obtained at the earliest possible moment because:

1 Land costs tend to increase when the owner learns that a municipality needs a specific property.

2 Detailed plans and specifications must be prepared on the basis of a specific site.

3 While the right of eminent domain (condemnation) is available to a governmental body, its application is sometimes slow, cumbersome and costly and often generates ill will.

Purchase of a site is often aided when several locations are available. Competition for the sale makes it easier to negotiate with the owners and may lower the cost.

Site approval-Upon request the Ohio Department of Health will have an

engineer representative inspect the site or sites proposed for your plant. Approval of the site will be given by letter to your municipality.

Include in selecting a site consideration of possible flooding, effect on values of surrounding property, area for expansion and point of discharge of the treated effluent.

So-don't delay! Get your sewage works site by:

Negotiated purchase;

Buying an option of sufficient duration to obtain funds for purchase and then purchasing the site later; or

Condemnation proceedings.

AWARD A CONSTRUCTION CONTRACT

When your final plans are completed and approved by the Ohio Department of Health and your financing legislation has become effective, the next step is the actual construction of your sewage works.

Your council now authorizes the proper officials to advertise for bids and to enter into a contract for construction. The statutes place this duty on the service director and board of control in cities. This duty for villages is assigned by law to the board of public affairs. In some cases where the sewer system is new or where it has not been operated as an incomeproducing utility, the mayor and council have carried the project through construction. Then the completed sewage works has been turned over to the board of public affairs to manage.

Construction operations on the trunk or interceptor sewers and the treatment plant itself may be divided into several steps. Preferably all contracts are awarded at one time and work goes ahead simultaneously. Sometimes material and labor shortages or advantages of stepped financing dictate that the project be constructed in stages.

Schedule construction—A construction schedule must be worked out by your consulting engineer and municipal officials in consultation with the Ohio Health Department. This schedule will specify that the treatment plant and trunk sewers leading into it be completed first. Outlying interceptors can be built later. This permits the plant to be put into operation before all interceptors are finished. Polluting discharges will then be progressively reduced as new interceptors to convey wastes to the treatment plant are completed and put into service.

Don't delay construction of the treatment plant! It is the key element in your municipality's program to reduce water pollution. Advertise for bids—Various sections of your sewage works project are then offered to contractors for bids. Advertisements for the project describing the work in brief, its extent and telling where plans and specifications may be obtained must be published at least two times, one week apart, in newspapers. Sometimes advertisements appear in technical journals of general circulation to attract bids. These call for receiving bids for the described work on a certain date, usually at your municipality's office building.

The bids are opened and read publicly on the selected date before interested parties and the contractors who are competing for the work.

Award the contract—The lowest and best bid—the one that offers to do the work at the least cost submitted by a responsible experienced contractor —is accepted by your municipal officials upon the recommendation of your consulting engineer. The award is made in cities by the board of control and in villages by the board of public affairs or sometimes by the council.

This is the awarding procedure for a construction contract: The successful bidder provides a performance bond and evidence of insurance coverage. Your fiscal officer certifies that funds to meet the costs are on deposit or in the process of collection. Your solicitor approves the contract as to form. Then the contract documents are executed.

Advertisement for construction bids can go forward before the bond money has actually been received. However, before a valid construction contract can be executed, the municipality must have in hand the funds to pay the contractor or a valid agreement for sale of its bonds. The fiscal officer must be able to certify that the bonds have been sold and are in process of delivery.

The performance bond obligates the surety company to complete the work if the contractor fails to do so. This is insurance that your project will be completed.

Construction should be started as soon as possible after the award has been made. A good contractor will waste no time; delay costs him money in overhead.

Defense restrictions—What effect will the present national emergency and restrictions on the use of steel or other materials have on building sewage-treatment works?

You must obtain permission (as of March, 1952) to start construction

and a DO rating (defense order number) from the Water Resources Division, National Production Authority (NPA) in Washington.

Application is made on form CMP-4C. Your engineers will have to give you the necessary data to complete this form.

Your application should be made as early as possible, preferably early enough to advise prospective bidders. You must have a permit and DO rating when the contract documents are executed.

These restrictions do not apply to sewer contracts where less than two tons of steel are required.

Check with your engineers or the Ohio Department of Health for information on restrictions as soon as you decide to proceed with your sewage works project.

EMPLOY COMPETENT OPERATING PERSONNEL

When you build a sewage-treatment plant, you have created a physical structure whose only justification comes from proper performance. If it doesn't operate as efficiently as it was intended then your investment is not bringing a full return. There's little sense in building a fine plant and then having its effectiveness spoiled by careless control of its fundamental operating process! And you are not getting your money's worth toward stream-pollution abatement.

But more than this, you have a considerable investment in structures and treatment equipment. The structures must be properly maintained; the equipment must be regularly adjusted, lubricated and repaired. These things must be done to protect your investment.

A word on management—Ohio law, which applies to villages and cities without special charters, places the management of sewage works utility under the service director (cities) or the board of public affairs (villages).

Another provision in the law permits cities to establish a board of utilities to manage its sewage and water services. Such a board is made up of three members serving staggered terms of office so that two members always have a year or more of experience on the board. This insures a continuity of management not possible with service directors who may change every two years.

There is a trend toward greater application of this law in cities striving to better their utility service.

Get good men-Your utility management should make every effort to hire

competent personnel to operate your sewage works. To determine if prospective employees are competent in such operation, you can check with the Ohio Department of Health. The department has established qualification requirements for operators of sewage works. Officials of the department will be glad to work with you and to help you make sure that you get competent operators.

One way of getting good men is to set your salary standards high enough to attract them. Just because you are staffing a sewage works, don't be fooled into thinking that everyone can operate the plant. It doesn't pay to hire shoe clerks or salesmen to operate a highly scientific process or to take care of valuable machinery. You deserve to have men in control who have the training and experience to do a good job.

Set your salary scales high enough to get good men! Make sure they are competent to operate a sewage-treatment plant!

Hire your operators early—The men that are to operate your sewage works should have a good knowledge of the plant. Because much of the piping, sewers and structures of a plant are buried beneath the ground, it is a good idea to employ the future operators as inspectors during construction. In this way, they get thoroughly acquainted with all the details.

Cooperation must be your watchword for management and operation of your sewage works. Remember that your council holds the "purse strings." It appropriates funds to build and operate your plant and expects the management to produce results.

The management must keep your council informed of the needs of the sewage works utility. Your council, conversely, must make adequate appropriations for management if good service is to be had.

Appendix i

COUNTY SEWER DISTRICTS

Where community sewage works are needed outside of municipalities, the statutes place the responsibility for providing the facilities on the county.

Historical—Before the 1930 depression, many public-works improvements in fringe areas surrounding cities were built under pressure from real-estate developers. These improvements were financed by special assessments.

During the depression, many owners of property that had been improved by these public works were unable to pay the assessments needed to support the bonds. This meant that county after county fell delinquent in servicing their special-assessment bonds.

This delinquency forced the bondholders to band together for relief. They demanded that the county levy a general tax against all county property to retire the special-assessment bonds. The courts upheld the bondholders in their suit.

Since that time, most boards of county commissioners have refused to issue special-assessment bonds for improvements in certain limited areas of their counties.

Law authorizes revenue bonds—The uniform bond act was amended by the 1949 Ohio legislature to permit counties to issue revenue bonds to pay for income-producing water or sewer utilities in county sewer districts.

Such bonds are not an obligation of the entire county and call for no tax levy in their support. Unlike municipal mortgage revenue bonds, there is no pledge or mortgage of the utility's property and consequently no franchise is granted for operation of the utility by the bondholders in event of delinquency in bond servicing.

Only the income collected for utility service is pledged in support of the bonds. This is done with a promise to maintain adequate rates and charges for operation, maintenance and debt service.

One county in Ohio (Montgomery) has made great strides in the application of the legislation that permits issuance of revenue bonds. Application of this permissive legislation will probably be much wider.

How districts are established—County sewer districts are established by resolution of the county commissioners. No petition by property owners

is required although it may be desirable.

County sewer districts may be organized for construction and operation of sewers and sewage-treatment plants.

County commissioners may contract with municipal councils for connection of district sewers to a municipal sewer system, for construction of sewers and related works, and for joint use of sewers.

Area limitations—Any area in one county—outside a municipal corporation—may be organized as a county sewer district. The county district may include part or all of a municipal corporation when this inclusion is authorized by the municipal corporation itself.

Power and duties—A county in operating a sewer district has power to: Make surveys; employ competent sanitary engineers; acquire, construct, maintain and operate main, branch, intercepting or local sewers within the district and outlet sewer, sewage-treatment plant within or without the district; may make rules and regulations for construction, maintenance, protection and use of sewers and sewage works; may create a sanitary engineering department in counties with more than 100,000 population; may borrow money, fix rates and assessments; contract for disposal of sewage; and exercise the right of eminent domain.

The board of county commissioners is the governing body of the county sewer district.

Appendix ii

CONSERVANCY DISTRICTS

Sewage collection and treatment problems—in some few locations—may be best solved on an area basis involving several municipalities and perhaps more than one county. The establishment of conservancy districts for sewage works for such situations is permitted by the Ohio statutes.

Establishment—To start a conservancy district, a petition of 500 freeholders, or a majority of freeholders or by the owners of over one-half of the property of the proposed district is necessary.

Municipal councils by resolution may initiate or subscribe to such petition and in so doing represent the signing of all freeholders of the municipal corporation. The petition, when complete, is addressed to a court of common pleas of a county in the district. The judge of this court and judges from similar courts of the other counties involved form the conservancy court which has final jurisdiction over the district. The conservancy court appoints a board of directors to administer the district.

Financing—Improvements in a conservancy district are financed by assessment bonds. Municipalities are assessed or charged for service as separate entities. The municipalities, in turn, may meet such charges by assessments levied against properties within the municipal corporation or by service charges (sewer rental).

Application—A conservancy district is a political subdivision of the state of Ohio. The usefulness of such districts is generally limited to the solution of problems that are too large either physically or financially to be handled by existing smaller political subdivisions.

Appendix iii

SOME REFERENCES

TO THE CONSTITUTION AND LAW	IS C	OF OHIO
ON FINANCING SEWAGE WORKS IM	PR	OVEMENTS
Uniform Bond ActSections 22	93-1	to 2293-37b incl.
Life of improvement estimated by fiscal officer. S.	ectio	n 2293-2
Bonds callable before maturity	**	2293-6
Maximum maturity of bonds	**	2293-9
Maximum maturity certified by fiscal officer	**	2293-10
Interest during construction included	**	2293-11
Bonds must be serial bonds maturing in substan-		
tially equal annual or semi-annual		
installments	**	2293-12
Net indebtedness-How calculated	**	2293-13
Net indebtedness-Limitations in municipalities	**	2293-14
Net indebtedness-Limitations in counties	**	2293-16
Revenue bonds-counties	**	2293-16a
Bond elections	**	2293-19
	t	o 2293-23 incl.
Special assessment bonds	**	2293-24
Bonds issued without a vote	**	2293-25

Sinking fund trustees have option to		
purchase bonds	"	2293-27
Sale of bonds-procedure	"	2293-28
Bond transcript	**	2293-30
Bonds for payment of engineering services	**	2293-376
Municipal Corporations		
Assessments	**	3812
	to	3911 incl.
Sewers	"	3871
	to	3891
Sewer rental law	**	3891-1 et seq.
Board of Public Utilities	**	4326-1
Uniform Tax Levy Law	625-	1 to 5626-3 incl.
Ten-mill limitation	**	5625-2
Special levies without vote of people	**	5625-6
Tax levies outside 10-mill limitation	**	5625-7
Resolution of necessity to levy tax		
outside 10-mill limitation	**	5625-15
Submission of proposed levy to vote at		
the November election	**	5625-17
Certification to Board of Elections prior		
to September 15th	**	5625-17
Vote necessary for approval of tax levy		
outside 10-mill limit	**	5625-18
Mortgage Revenue Bonds Constitution	Sec.	12, Art. XVIII
County Sewer Districts	**	6602-1 et sea.
Sever Rental Law	**	6602-1
Special Revenue Bonds	**	2293-16a
	and	6602-1
Joint Semer Districts	**	6602-10 et sea.
Sever District Water Supply	**	6602-17 et seg.
Sanitary District Law	**	6602-34 et sea.
Periodal Water and Server Districts		out of crossy.
(Normer been mod)	**	6791 at seg
(Never been used)		0701 et seq.
Conservancy District Law		0828-1
	to	6828-79 incl.
Water Pollution Control Act	**	1261-1a
	to	1261-1i incl.

Appendix iv

SOME IMPORTANT COURT DECISIONS AND ATTORNEY-GENERAL OPINIONS AFFECTING SEWAGE WORKS FINANCING

- State of West Virginia, ex rel v. Sims, 341 U.S. 22, 95 Led 713 (1951). The United States Supreme Court in this case reversed the Supreme Court of Appeals of West Virginia and held valid the West Virginia statute authorizing that State to enter into the Ohio River Valley Water Sanitation Compact.
- City of Bucyrus v. State Department of Health, 120 O.S. 426 (1929). The Ohio Supreme Court affirmed the doctrines of the Greenville case (86 O.S. 1) as being applicable to municipalities even after the adoption of the home rule provisions in Article XVIII of the Constitution. The Court held that a municipality is subject to the State sovereignty in respect to sanitation for the promotion or preservation of the public health and sustained an order of the Department of Health issued to the City to install satisfactory means for collecting and disposing of sewage to prevent pollution of the Sandusky River.

Article XII, Section 2 of the Ohio Constitution.

Limitation on tax rate, exemption. No property, taxed according to value, shall be so taxed in excess of one per cent of its true value in money for all state and local purposes, but laws may be passed authorizing additional taxes to be levied outside of such limitation, either when approved by at least a majority of the electors of the taxing district voting on such proposition, or when provided for by the charter of a municipal corporation

The State, ex rel, City of Portsmouth, Ohio v. Kountz, mayor, et al, 129 O.S. 272.

This decision establishes that the constitutional tax limitation by implication also imposes a debt limitation. The tax required to service special assessment and general obligation bonds of all overlapping subdivisions must be included in computing the number of mills already pledged with respect to the 10-mill limitation even though in practice the bonds are serviced from sources other than taxation. Anticipated or uncollected income may not be counted. In effect this requires voting on a levy required to service assessment bonds (when such levy would increase the pledged millage beyond the 10-mill limit) even though the assessments may be adequate and the tax be not actually levied.

State vs. Board of County Commissioners of Allen County, Ohio, 124 O.S. 174, 175, 177, NE 271.

This decision establishes the fact that county sewer district special assessment bonds are, in case of delinquency in payment of assessments, the general obligation of the county and must be retired by a general tax levy.

The State, ex rel., vs. King (City of Fostoria, Ohio) 154 O.S. 213.

Where a municipality has owned and operated a sewage system, an ordinance establishing sewer-service charges for operation, maintenance and debt service on bonds issued for extension and improvement of the system and providing for mortgage revenue bonds and enacted as an emergency pursuant to Section 4227-3 G.C. is not subject to referendum.

1951 Opinions, Ohio Attorney General, No. 859, October 25, 1951, 74 Dep. Rep. 74.

Syllabus: For the purpose of paying the preliminary costs and expenses involved in the establishment of a garbage disposal district and constructing disposal plants as contemplated by Section 6600, General Code, funds may be advanced from the general fund of the county, and upon the sale of revenue bonds for such purpose as provided by Section 6600-6, General Code, a portion of the proceeds from such bonds may be used to reimburse the general fund for monies so advanced.

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