City Projects to Give Jobs to Vast Number

(Continued from the First Page)

Discussing possible development of a new water supply, the commission reported that it was "not prepared at this time to recommend the inclusion of such a project in the public-improvement program." The commission explained that the Mayor intends to name a commission to make a thorough survey of sites and previous recommendations concerning new sources.

Extent of Lag Uncertain

"Immediately after the end of the war there probably will be a serious unemployment problem or lag until private industry can be converted to peacetime production," the commission said. "How extensive such employment will be, and how long it will continue, cannot be predicted with certainty. However, there appears to be no doubt that a substantial amount of employment will have to be provided, at least temporarily.

"One of the quickest ways to provide employment is the construction of public works. Expenditures for labor on the site average nearly two-thirds of the cost, and analysis of the cost of materials has shown that as much as 90 per cent may go ultimately for labor. Both skilled and unskilled workers are required."

The report continues:

"Among recommended projects, the sewage treatment, waterworks-rehabilitation and City-State highway programs have been given priority. Plans and specifications are completed for improvements estimated to cost $23,800,000.

"Work could proceed immediately on these projects, which would provide an estimated 5,700,000 man-hours of labor. Additional plans and specifications in process on on these projects can be completed so that construction work estimated to cost $36,600,000 and to provide about 11,253,000 man-hours of employment could begin in the spring of 1945.

Others Feasible Later On

"Thus, a program of recommended urgent public improvements involving the expenditure of some $60,000,000 and providing almost 16,954,000 man-hours could be started immediately after the end of the war or within six months thereafter.

"There are, in addition, a considerable number of recommended projects for which the financing has not been arranged but for which plans and specifications are completed or could be completed within six months. Included in these projects are flood-relief, additional sewers and drainage, viaducts, bridges, projects related to railroad terminal improvements, grade crossing eliminations, street paving and repaving, elimination of dead ends in the water distribution system, reconditioning of water mains, and other miscellaneous improvements.

"Approximately $15,900,000 of such work is now ready to start and would furnish 4,052,000 man-hours of employment. An additional $18,435,000 of such work could be ready within six months, and would provide 5,712,000 man-hours of employment.

"Projects for repairs, replacements and minor construction offer an excellent opportunity to employ labor quickly, and in most instances do not require extensive plans and specifications. The projects for maintenance work submitted to the commission, which represent only a part of the total accumulated need, would provide an estimated 5,000,000 man-hours of employment.

"Work on most of these projects could begin immediately after the end of the war, provided funds were available. There is little doubt that an exhaustive survey of needed repairs, replacements and minor construction would increase the total estimate of man-hours by not less than 5,000,000."

The report included a disclosure of plans under consideration by a special committee of the Board of Public Education and covering 188 projects, estimated to cost $37,025,000.

The Board's program is analyzed as follows:

For enlarging 57 school playgrounds where present facilities are inadequate, $3,516,000; for new auditoriums, gymnasiums, playrooms, classrooms and other alterations and additions to 38 schools, $5,200,000; for new plumbing, heating, additional showers and lockers in 23 schools, and for adapting 42 school buildings to community use, a total of $2,085,000; for new buildings and sites, $22,624,000; and for miscellaneous items, $3,600,000.

New Buildings Planned

The new buildings and sites under consideration, and exclusive of replacements, are:

Central city—One junior high school, one vocational high school, one athletic field, and a central recreation building.

West Philadelphia—Two elementary schools, one junior high school, one vocational school and four athletic fields.

South Philadelphia—One elementary school, two junior high schools and two athletic fields.

South Philadelphia—One elementary school, one senior high school.

Northeast Philadelphia—Three elementary schools, one vocational school, one senior high school.

The school program under consideration is based on the assumption that Federal aid would be available.

Sewage Problem Most Urgent

"The most important and urgent problem confronting the city is the collection and treatment of its sewage," the commission reported. "At the present time the city discharges into the Delaware River a daily average of 400,000,000 gallons of sewage, of which more than 80 per cent does not receive even primary treatment.

"This situation does not result in pollution of the city's own water supply, because of the protection already provided at the Northeast plant. However, it does produce evil-smelling, unsanitary and sometimes dangerous conditions in the principal water courses of the city.

Rehabilitation of Water Works

On waterworks rehabilitation, the report stated:

"Before the present City Planning Commission was created, the city had employed consulting engineers to advise concerning the improvements to be undertaken, and the voters had approved an $18,000,000 loan. However, scarcity of labor and materials has made it impossible to carry out all of the program for improvements to treatment plants and the distribution system and for extension of water mains into newly developed areas. Fortunately, with the aid of measures to reduce waste of water, the waterworks-supply system has managed to meet the heavy additional demands imposed upon it by the increase in population and the intensified industrial activities brought by the war.

"The waterworks rehabilitation project has been included in the 1945-50 public-improvement program and the City Planning Commission recommends that it be completed as expeditiously as possible. Since financing of the project already has been arranged, there should be no delay due to lack of funds."

As for highway improvements, the report stated:

"A far-reaching program for improvement of city streets and highways has been proposed for the immediate post-war period, when the lifting of existing restrictions on motor-vehicle production and gasoline consumption will make quite apparent the need for more and better thoroughfares. Improvement of highways will be a particularly advantageous type of construction for this critical period because few strategic or prefabricated materials are required.

"Outstanding among the proposed highway improvements is the city-state highway improvement program, to be carried out jointly by the city and the Commonwealth of Pennsylvania. This work is estimated to cost $39,550,000 of which the city's share would be approximately $4,000,000.

Originally the program was scheduled to extend over five years, but has been rescheduled for completion within three years, if conditions warrant, without exceeding the $12,000,000 annual expenditure which the Commonwealth is authorized to make in Philadelphia under the act of July 10, 1941."

The commission reported that the total length of the highways recommended for improvement is about 55 miles. Two of the most urgently needed projects, among the many included in the program, are provision of adequate approaches to the Philadelphia-Camden bridge, and construction of the low-gradient industrial highway entering the city by way of Essington and Penrose Ave., and to be proposed extension as a skyway, bordering or paralleling the Delaware River to an outlet in the northeast.

Market St. Subway Extension

"Most important of the high-speed transportation proposals, because of its strategic relationship to the future development of the central city area, is completion of the Market Street Subway extension from west of 20th st. to near 42d st.

"The section from 24th st. to 32d st., including the tunnel under the Schuylkill River, already has been constructed. Completion of the entire line, ready for operation, is estimated to cost $24,490,000.

After discussing a $182,510,000 project for completing the concourse under and around City Hall and a $210,000 project for purchase and installation of sump pumps for the North Broad Street Subway, the report continued:

"The largest area requiring new or additional transit facilities is in Northeast Philadelphia. However, the provision of new facilities in this section must be co-ordinated with the highway program and with general development of the area."

N. E. Airport Work $2,475,000

For the improvement of the Municipal Airport, the construction of new buildings, hangars, runways and other facilities was proposed at an estimated $8,275,000, including cost to the city of $2,519,000.

"For Northeast airport, an estimated $2,475,000 will be required to make it a class A-1 commercial airport even after completion of the present construction project there."

The commission declared to be of first importance the removal of the Chinese Wall, which would be followed by the removal of the Old Broad Street Station.

It discussed accomplishments so far flowing from the agreement of 1925 to which the city and the Pennsylvania and Baltimore & Ohio railroads were parties, and the remaining steps that were called for in that agreement, including the construction of Pennsylvania Boulevard on the line of Filbert st. from 15th st. to the 30th Street Station, including a bridge over the Schuylkill River and the widening of intersecting streets between Market and Cuthbert sts.

"In the light of subsequent developments, certain changes in the program may prove desirable, and studies preliminary to negotiations for necessary revision of the agreement are now under way.

"It is estimated that the city projects still to be completed under the new program will cost not less than $36,807,000, of which approximately two-thirds will be required for completion of the Market Street Subway extension and the balance for highway and bridge construction."

River Transportation

Concerning the proposed tunnel, the report had this to say: "An important consideration in planning for the metropolitan area, as a whole, is the provision of adequate transportation across the Delaware River."

The proposed tunnel, between Gloucester County, N. J., and Delaware County, Pa., south of the Philadelphia Municipal Airport, will provide a by-pass around Philadelphia for traffic from Washington and New York City and from Pennsylvania to the New Jersey shore, in addition to increasing the accessibility of air services to New Jersey residents.

The commission recommends an early start on the completion of Pier 80 at the foot of Snyder av.

Director of Public Works John H. Neeson is vice chairman of the commission, other members of which are Joseph F. Burke, Gordon R. Exley, Roy A. Heymann, William A. Kelley, William H. Loesche, Raymond MacNeille, D. Robert Yarnall.

Robert B. Mitchell is executive director, Charles A. Howland, chief of the projects division, and Herman N. Schwartz, counsel.

2 EXPERTS BACK SEWER RENT PLAN

RECORD

Engineers Testify City's Proposal Is 'Fair and Reasonable'

Read editorial, "Time to End City Version of the Farmer's Wife."

Two engineering experts defended yesterday as "fair and reasonable" the sewer rent proposed by the city to finance its $42,000,000 sewage-disposal project.

The experts testifying for the city in answer to a taxpayer's suit to halt the levy were Nathan B. Jacobs, of Pittsburgh, consulting engineer to the Philadelphia Department of Public Works, and Samuel A. Greeley, Chicago hydraulic and sanitary engineer.

Suit Attacks Proposal

The rent, which would range from 50 to 100 percent of water bills, is under legal attack as discriminatory before Judge Gerald F. Flood in Common Pleas Court No. 6. Joining with the taxpayer, John J. Gericke, are seven real estate and other organizations. Defending with the city are 28 civic groups which have intervened.

Ben Franklin Knew City's Need of Better Water; Made Provision in Will but Estate Lacked Cash

By LEEDS MOBERLEY

Benjamin Franklin, who pioneered in s many assorted fields of activity, was one of the first to recognize that Philadelphia's drinking water was bad.

When the public-spirited Highst. printer drew up his will in 1789, he included a bequest of $100,000 for damming the Wissahickon as a new source of supply and outlined a plan for piping it into the city by gravity flow.

Unfortunately, his far-sighted benefaction turned out to be only a gesture. When he died the following year his estate was so shrunken there was no money to carry out the bequest.

But most of Franklin's contemporaries were unperturbed. To them the notion that the clear, cold water that came from their wells might be contaminated seemed ridiculous—until a series of epidemics struck the city.

First Waterworks Built

By 1797 there was so much reversal of feeling that City Councils, spurred by petitions "signed by an unprecedented number of respectable citizens," engaged Benjamin Henry Latrobe, an outstanding engineer of that day, to study the practicability of obtaining a water supply within a reasonable distance of the city.

The result was the erection of the city's first waterworks — a pumping plant in the Schuylkill River at Chestnut st., which pumped water to a "receiving fountain," an architectural hodgepodge of marble located in Centre Square—the present site of City Hall.

The building, because of its circular form, was known familiarly as "The Pepper Box." A steam engine, made mostly of wood, pumped the water into huge wooden tanks at the top, and from there it flowed by gravity through the city mains.

Finished in 1801

The waterworks, ultra-modern in its day, for all its crudity by present standards, was completed in 1801. It might have been finished sooner but for one unhappy mischance.

That was the illness of Nicholas J. Roosevelt, of Passaic, N. J., the engineer who built the steam pumps and the receiving fountain—whose collateral descendant, Franklin D. Roosevelt, was to describe the Philadelphia water situation 140 years later as "a stench in the nostrils."

Nicholas Roosevelt got sick from drinking Philadelphia water.

Drank Well-Water

In the interests of historical accuracy it must be emphasized that the potation that so upset Nicholas Roosevelt was not the Schuylkill cocktail that we know now, but the "good" well-water on which the city depended before the waterworks was built.

Today our rivers are polluted by the sewage discharged into them—by us and by the communities upstream. In 1800 there were no rivers; the wells were polluted by the underground drainage of privy vaults but the Schuylkill was clean and pure.

It is hard to look at the foul, oily mess flowing sluggishly through its silt-clogged channel that we know, and realize that the river's beauty was what prompted William Penn to locate his "City of Brotherly Love" here.

Considered Other Site

Penn had just about made up his mind to lay out his city farther downstream on the Delaware, where Chester now stands, but was persuaded to sail upstream a few miles to the junction of the Schuylkill. "Schuylkill" is the Dutch for "Hidden River," but in those days it didn't mean it was hidden by silt and sewage; it meant it was hidden by League Island when viewed from the Delaware.

At any rate, Penn was so charmed that promptly changed his pla and located his city at that point. And when the city, a century or so later, turned to the "Hidden River" for its drinking water, the stream was still so clean and pure that the water could be pumped directly into homes, without filtering or medication.

Didn't Stay Pure

But it did not remain that way. For awhile pollution was no problem; the oxygen normally contained in water will cleanse it of a substantial amount of pollution as a river runs along. But before many years the sewage and industrial wastes discharged into the Schuylkill began to raise the same sort of threat that the privy vaults had presented in the days of the wells.

By 1828 the threat was so serious the Legislature passed the first of a long—but impotent—series of laws intended to safeguard the purity of the Schuylkill. Move followed in 1832, 1860, 1861, 1867 and 1871. In 1856 Fairmount Park was created with the idea of preventing industries from setting up on the banks of the river and discharging their wastes into the stream. Unfortunately, whoever fathered that idea overlooked the fact that wastes could be—and would be—discharged farther upstream.

Delaware Polluted Too

Meanwhile, the city had started drawing water from the Delaware to augment the pumpage from the Schuylkill, and the Delaware River was becoming polluted too. By 1866 there was "so much objectionable matter" being drained into both rivers that H. P. M. Birkinbine, then chief engineer of the Water Department at the time, recommended an entirely new source of supply on the Perkiomen near Ziegelsville.

But Birkinbine's proposal, like Franklin's of three generations previously, and those of repeated subsequent water commissions, fell on deaf ears. Philadelphia water always has found its defenders, and the Fairmount Park Commission hastened to declare that the Schuylkill could be relied upon for many years if properly guarded from pollution.

So Philadelphia continued to draw its water from increasingly polluted sources. And it paid the price in sickness and death, with several typhoid epidemics.

However, the unpleasant today's "chlorine cocktail" may taste—and even Director of Public Works John H. Neeson admits its "potability and freedom from objectionable taste and odor can not rightfully questioned"—it is at least free of disease germs; constant laboratory tests and liberal medication see to that.

Now and then the aqueous solution of chlorides, sulphates, alkali, magnesium, lead, copper and zinc that issues from Philadelphia's spigots upsets the surprised digestive mechanism of some visitor who is accustomed to a milder drink.

But both in chemical characteristics and in bacteria count its average is well within the standards set by the United States Public Health Service.

Last year the city had only four typhoid deaths—a rate of 0.2 per 100,000 of population—and they were not water borne; all were traced to human carriers. But in the 1880's and 1890's the rate went as high as 78.2 per 100,000, and the raw, untreated water was chiefly responsible.

Epidemic in 1888

The peak was in 1888, when an epidemic of the disease killed off 785 persons out of a total population of 1,036,000. The following year was almost as bad, with 736 deaths.

The typhoid rate tapered off then, dropping to a "low" of 370 deaths (32.5 per 100,000) in 1894. Then it rose to a new high of 947 deaths in 1899, but because the population was up to 1,266,600 by then the rate was only 74.9, so that it was proportionately less severe than the 1878 outbreak.

The furore over the polluted condition of the rivers became so great that City Councils felt impelled to adopt a resolution instructing the Water Department to refrain from further comment on the situation—because it was "giving the city a bad name!"

Bad for Works

But Councils could not silence the typhoid statistics. And in 1902 the city began construction of modern filtration and treatment works. The job was finished in 1913, but even before it was completed the typhoid rate dropped more than 50 percent. And in 1914, the first year of complete treatment, there were only 124 typhoid deaths—or 7.5 per 100,000 population.

Since then the rate has continued to range downward, with relatively minor fluctuations from year to year.

For the nonce, Philadelphia's water is once more was up to date. It hasn't changed since then; there has been some replacement of equipment but nothing far-reaching. For one thing, there was always talk about some day getting a new source of supply.

And in the meantime the present source has become steadily worse.

This is the first of a series of articles on Philadelphia's perennial No. 1 problem—water. Tomorrow's article will discuss the silt menace and the prospects of its removal.

"Universal water meters in the city are not essential to make rates fair," said Jacobs. Earlier, Prof. William Sprague Pardoe, of the University of Pennsylvania, testified no fair rental could be devised so long as more than one-half the city's 460,000 properties have no meters.

Calls Plan Best for City

"Various cities have different forms of sewer rent," said Greeley. "They are based on the number of water fixtures, the number of rooms, the kind of property, the meter readings and other factors. For a city like Philadelphia, in my judgment the proposed form of rental is the best."

Judge Flood asked whether it would be possible to place on sewer-users instead of on taxpayers generally the cost of the city's storm as well as sanitary sewers. "Yes," replied Greeley.

Earlier, Works Director John H. Neeson said it was his "hope" that the new project, designed to end the city's dumping of untreated sewage into the Delaware and Schuylkill rivers, might be started next year despite the war.

Experts Uphold City On Sewer Rate Plan

INQUIRER

The plan of City Council to fix flat rates for sewer service to finance construction of sanitary disposal plants in the city was upheld by two sanitation experts as the taxpayer's injunction suit to block the proposal entered its third day in Common Pleas Court No. 6 today.

Nathan B. Jacobs, Pittsburgh sanitary engineer and consulting engineer to the Department of Public Works, and Samuel A. Greeley, hydraulic and sanitary engineer, of Chicago, testified before Judge Gerald F. Flood that the city's plan embodied in an ordinance is fair, equitable and nondiscriminatory.

OUTLAY OF $42,000,000

The proposal, which calls for an expenditure of $42,000,000 to erect plants and provide service to eliminate pollution of the Schuylkill and Delaware Rivers, is being opposed by John J. Gericke, of 2537 S. 16th st., a Federal employe, the Philadelphia Real Estate Board, United Business Men's Association, neighborhood and other real estate groups.

Mr. Jacobs also took issue with W. Sprague Pardoe, professor of hydraulics at the University of Pennsylvania, who, in testifying for the litigants on Tuesday, said no equitable rate could be levied unless every property in the city was equipped with a water meter.

METERING MINIMIZED

"I do not think metering is essential to the fixing of rates," said Mr. Jacobs. "It is desirable, but the meter is not the criterion of fair and equitable rates. There must be taken into consideration such matters as investment, taxes, carrying charges and so on. All these elements enter into the meter schedule and not only the quantity of water used."

Mr. Jacobs said that while "some cities are metered, others are not, notably New York and Detroit, which are almost unmetered." Approximately 47 percent of the buildings in this city are metered at present.

Mr. Gericke and the intervening litigants are seeking an injunction against the ordinance on the ground the plan authorized by it will nearly double the present water bills. The litigants contend the city could finance the project without reflecting its cost directly into the water bills.