

## City Wants the Best Water Regardless of the Cost

The Bureau of Municipal Research has been a useful institution.

Like other institutions, the bureau makes mistakes.

We believe it made a bad one this week in recommending that the city abandon plans for a new upland water supply and stick to present sources—the polluted lower Delaware, and, for a time, the Schuylkill.

Its staff engineer, Robert K. Sawyer, indicated at a hearing before City Council's Public Works Committee that a high quality water, without objectionable taste or odor, could be produced from present sources simply by additional treatment.

We cast no reflections on Sawyer's competence as an engineer.

But his assertion is in direct conflict with the most significant conclusion of the engineers of the Mayor's Commission.

These are engineers of national reputation—with no political axe to grind in recommending a new water source. They devoted nine months to the first complete engineering study of our water problem.

They stated there was no assurance the city could obtain good drinking water from its present sources.

They said there can be no sensible alternative to a new source of water supply.

There is every reason to believe them.

It is reasonable to assume that the purer the raw water that is brought into our system, the purer the final product that will run from the household's spigot.

All water needs some treatment to make it safe or potable. The most contaminated requires the most treatment.

Thus, should the treatment system or the men who operate it fail, the results would be the more serious the more polluted the water was to start with.

With our present sources polluted by industrial waste, there is always danger that the raw water will suddenly become too foul for the purifying equipment to cope with.

Objectionable water could be in the distribution pipes before it was detected.

Going to the upper Delaware, to Wallpack Bend, as suggested by the Mayor's Water Commission, will not mean escape from all pollution. It will not end the danger of failure in treatment plants.

But it will be greatly minimized.

The Bureau of Municipal Research seems to be preoccupied with costs.

The bureau's plan would cost \$122,968,000; the Wallpack Bend project plus stop-gap repairs of the existing system, \$315,791,000.

The bureau's plan is false economy as long as it falls short of providing the best possible water.

Philadelphia doesn't want a high quality water at the "most reasonable cost." It wants the highest quality water—because cost will be too small to haggle over.

The Wallpack Bend project, for instance, would mean only an increase of two cents a day in the average household's bill.

Wise people do not shop by price tag—only by quality—when even the highest price tag is so easily within their means.

Now is the time to provide Philadelphia with the best water. Not the next best.

We are going to have to drink it for a long, long time.

## er. Lane Reservoir, 50 Yrs. Old Gets First Complete Cleaning

Deepwater Dredge, Hauled to Scene in 2 Sections and Reassembled, is Removing Tons of Silt

The Queen Lane reservoir is celebrating its fiftieth anniversary with a complete cleaning, the first in its history, and doing the work is a deepwater dredge hauled to the scene in two sections and reassembled by the crew of veteran river and harbor men.

In 1868, when the first water was pumped into the reservoir from the Schuylkill River, the huge, rectangular basin could hold 177 million gallons. By this November, when the cleaning project was started, its capacity had been reduced by more than half and it is estimated to hold only an estimated 350,000 tons of it and mud.

Yielded Treatment Again

To remove this gigantic deposit and yet keep the reservoir in operation was a problem that was solved after months of planning by officials and the entire staff of the Eastern Engineering Co., Atlantic City. The same firm last year cleaned the Torresdale Reservoir by edging, but the basin's proximity to the Delaware River made it a

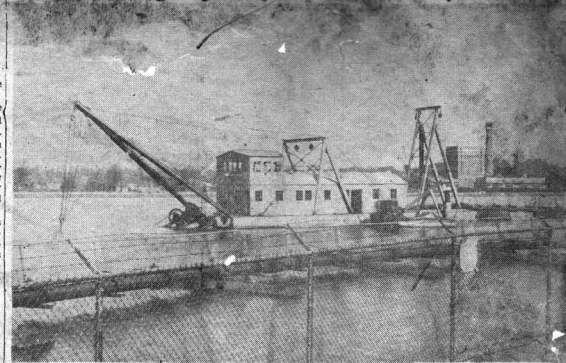
simple matter to bring the large dredge to the scene of operation.

It was finally decided to house the dredging machinery on a new steel hull, haul it in sections from Atlantic City to the Queen Lane basin and weld it together as it arrived. The scheme worked. Crew members from an American flag on the rigging, unofficially dubbed their craft the "Big Queen," and started dredging.

To eliminate gas and oil exhausts into the reservoir the dredge is electrically powered. A flexible, 16-inch pipe with steel cutting blades digs into the sediment and it is discharged through several thousand feet of tubing which snake after the dredge on cylindrical pontoons.

The dredge crew, most of whom can close their eyes and describe every rivet and harbor along the east coast in detail, admit that they still will startle when they scan the horizon only to see cars and buses rolling along Henry av. or Fox st. Working shift work, they sleep aboard, but go "ashore" either by walking atop the discharge pipes

## Flagship of Queen Lane Navy



Deepwater dredge "Big Queen" rides at anchor in Queen Lane Reservoir where her job is to dislodge 350,000 tons of silt and mud

or by pulling at the oars of a small boat.

To show the reservoir's part in the water system, Joseph E. Gill, the Water Bureau's principal assistant engineer, scooped up a beaker of water from the Delaware and took it to the Schuylkill. In this he dropped a few grains of aluminum sulfate.

Remove Up to 96% of Solids

"By doing this on a large scale, we remove up to 96 per cent of the floating solids from the water," he explained. "These impurities settle at the bottom of the basin and since Schuylkill River water has an average of 330 pounds of suspended solids for each million gallons of water you can see how such a deposit of silt could be built up in 50 years."

"This is the first, and a very important, step in water purification," Gill continued. "Clearing of the basin materially will improve existing conditions and quality of water at the Queen Lane filters and, since the State and the Federal Government are about to embark upon a joint project to clean up the entire length of the Schuylkill, the probability of any future silting of the basin here will be eliminated."

Contract specifications require that the work be carried out in such a manner as to cause no increase in the cloudiness of the water as it leaves the basin and daily tests show that this has not occurred despite the action of the dredging equipment. Nor has there been any interruption in service, water officials point out.

Serves 600,000 in Area

Serving as it does more than 600,000 users in an area bounded by Hunting Park av., south to the Navy Yard, and from the Schuylkill east to Broad st., the Queen Lane plant is the largest and most important in the city's system. Officials say, too, that it will be the key facility in any water supply project of the future.

What threatened to be the biggest cobweb connected with the project—that of disposing of the silt, was solved into an asset when Martin Laughlin, Director of Public Works, decided it used to fill in the land on the west side of the reservoir to the Queen Lane

filter plants.

To hold the almost fluid silt at a perimeter of high earthen dikes was pushed up by steamshovels and bulldozers and special manholes erected. These manholes permit the water to pass into the sewers through wire covered inlets which are plugged up as the level of the ground rises.

Silt Could Fill Large Area

Director McLaughlin said the area from Fox av. to the Chestnut Hill branch of the Pennsylvania Railroad, and between Queen Lane and Crawford st., could be filled to street level with the reservoir silt. New water treatment buildings will be added to those on the site and the entire area landscaped, he added.

Most of the undertaking, \$360,000, will be paid for out of the \$18,000,000 loan for water system improvement.

Both McLaughlin and Gill say they expect the Queen Lane cleaning to be completed by the end of June and disclosed they are contemplating similar operations in the Roxborough Reservoir.

## Report to the People—No. 9

# Council Votes Funds For Water, Highway, Playground Projects

(This is the ninth in a series of reports to the people of Philadelphia, presented by The Inquirer from time to time on the progress being made on post-war improvements.)

CITY COUNCIL stepped up the pace of Philadelphia's vast civic improvement program during July.

The month's program was highlighted by the voting of \$10,170,500 for improvement of the city's three filtration and pumping stations, necessary prelude to any new water supply for the city.

But Council also launched a \$8,000,000 street repair and highway extension program, prepared to vastly expand playgrounds and recreational facilities and submitted ordinances for major projects under the \$78,200,000 loan bills approved by the voters in May.

One of the obstacles to the improvement program, it was shown during July, is the city government's lack of revenue comparable to the size and wealth of Philadelphia.

A survey prepared by The Inquirer showed that Philadelphia's tax revenue is little more than that collected by cities one-third its size, while its income from Federal and State contributions is infinitesimal compared to that of other major American cities.

Major developments in city improvements during July include:

### Water

Project is authorized by the \$10,170,500 made available by Council late expected to bring some improvement in Philadelphia's water supply within six months, although they will require nearly three years to complete.

Plans drafted by Director of Public Works Martin J. McLaughlin allot \$5,993,500 to the Queen Lane pumping station, which filters water from the Schuylkill. This sum will permit construction of a new pre-treatment plant with a capacity of 120,000,000 gallons a day as well as the rehabilitation of mechanical filter beds and the installation of carbon feeding equipment.

"Schuylkill Punch" long has been rated the worst of Philadelphia's present water supply because of its magnesium content. Engineers believe that new equipment and filtration methods will make this water safe, palatable and sparkling as any other. Another \$3,722,000 was appropriated for the Belmont pumping station, where carbon pre-treatment equipment also will be installed. A high pressure station will be removed to a new location at 92d st. and Fairdale ave.

The remaining \$455,000 goes to the Torresdale pumping station for minor changes of a similar nature. Council's decision on these projects will bring the quickest possible improvement in the city's water supply. It will have an important bearing on other decisions still to be made.

The Water Commission appointed by Mayor Bernard Samuel is presently rewriting its report on nine proposed new water sources for Philadelphia. This report is expected to be submitted to Council in August. The commission already has recommended, unofficially, that Council choose the new source, without submitting the question to public referendum.

Members of the commission believe that because of the technical problems involved it would be difficult for the electorate to make a wise choice.

Whichever of the new sources is chosen by City Council, the water supply will be filtered and treated. Thus, the funds being expended on improvement of the filtration plants will prepare for service in connection with the new water source.

## Good Water at Low Cost

ACCORDING to a statement submitted by the Bureau of Municipal Research at the last councilmanic water hearing the advantage of a good raw water source lies entirely in the lesser treatment required and the consequent lower treatment costs, and not in the quality of the final product obtainable. A high quality of water, it was said, can be obtained from any of the sources now being considered, including those now used, and if the final product is not satisfactory it is the fault of the treatment and not of the source.

The Bureau asserts that treatment necessary to make the Schuylkill water satisfactory would raise the annual costs higher than abandoning the Schuylkill and taking all the water from the Delaware at Torresdale. The Torresdale intake, however, would cost far less than any of the upland proposals.

Having gone to Torresdale for its whole supply, the city might pause, waiting to see whether a distant new source will be necessary as a means of securing, not a better water, but a greater quantity of water. More water than can be taken at Torresdale may never be needed.

This is not an argument for the present quality of delivered water. Councilmen will be wise to test the degree of improvement attainable from the continued use of present sources before making any commitments to an upland source. If the proposal is found, it offers a really low water to Philadelphia at a comparatively low additional cost.