



Hon. George S. Silzer,  
Governor of New Jersey,  
State House, Trenton, N. J.

Dear Sir:

Pursuant to the request you made on November 10 as per memorandum from your Secretary dated November 13 that the Sanitary and Economic Water Commission make an investigation of the Raritan River especially between Somerville and Perth Amboy and make some recommendations as to controlling the pollution of the river, the Commission has studied the situation as far as it could within the time and with the means at its command and respectfully submits the following:

First: We have prepared a special map of the whole area drained by the Raritan, using as a basis therefor the maps of the Board of Conservation and Development. This map is drawn to a scale of 1" to a mile and materially aids a clear comprehension of our report. It is attached hereto as appendix I.

The main stream together with the various feeders drains approximately 1,105 square miles.

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|-------------------------|---------------|
| The North Branch drains | 191.6 sq. mi. |
| The South Branch drains | 276.5 " "     |
| The Millstone River "   | 285.7 " "     |
| Green Brook "           | 61.5 " "      |
| Lawrence Brook "        | 45.0 " "      |
| South River "           | 132.8 " "     |

Total Watershed of Raritan 1105.00 approximately

Second: We have collated the data already secured by the State through the State Board of Health and through the Board of Conservation and Development and rely on this largely for the recommendations which conclude this report. These findings are attached to this Report as appendix II.

Third: This Commission has adopted for the present at least, the classification of streams recommended by the Sanitary Water Board of Pennsylvania, which is:

Class A streams are those probably subject to chance contamination by human being but unpolluted from any artificial source, hence generally fit for domestic water supply after chlorination - will support fish life and may be safely used for recreation.

Class B streams are those more or less polluted, where the extent of regulation will be determined by a consideration of the probable use and condition of the stream, the practicability of remedial measures, and the general



interests of the public through protection of public health, the maintenance of fish and aquatic life, and the use of the stream for recreational purposes.

Class C are those now so polluted that they cannot be used as sources of water supply, will not support fish life and are not used for recreational purposes, and also from the standpoint of practicability cannot be economically restored to a clean condition.

Fourth: We have considered the information furnished by the State Board of health and set out in detail in appendix II of this Report, the Allen Hazen Report of 1922 to the Board of Conservation and Development, the work that is being done by the North Jersey District Water Commission, Mr. Morris R. Sherrard, Engineer, the investigation that is under way by the State Water Policies Commission, Mr. Nicholas S. Hill, Jr., Engineer, and the work done by Mr. Hill for the City of New Brunswick in regard to using the Raritan as an additional source of water supply for New Brunswick, and have placed the boundary between the Class A and Class B sections of the Raritan at the junction of the Millstone River with the main stream, thus putting both the North and South Branches into the A class.

Green Brook we class as B downstream from North Plainfield, South River as B down stream from Old Bridge, Lawrence Brook as B below the reservoir. The Raritan itself we class as C below Kellers Landing at Mill Brook.

Fifth: We find that the outstanding features of the present situation as detailed in appendix II are:

South Bound Brook, Plainfield, Dunellen, Hightstown, Helmetta, Metuchen have more or less satisfactory sewage treatment works.

Somerville, Finderne, Raritan, Bound Brook, Highland Park and New Brunswick discharge untreated sewage and trade wastes into the Raritan. So do Perth Amboy and South Amboy. The smaller communities in the watershed for the most part use cesspools and are not, comparatively speaking, a serious factor in the pollution of the river.

Sixth: In our judgment it is practicable and economically advisable to save the Raritan and to restore it where necessary to comply with the classification and standards set out in the Third and Fourth articles of this Report. To accomplish this it is apparent that Somerville, Finderne, Raritan and Bound Brook should improve their present disposal methods. An organization known as the Raritan Valley Conservation Association, and headed by Mr. Warren C. King of Bound Brook has formulated a plan which contemplates the creation by the Legislature of a "Raritan River Authority" to be composed of Commissioners, one from each county in the Raritan Watershed which authority shall have complete jurisdiction and be authorized to construct sewers and drains within the area including a trunk sewer to take water below New Brunswick.

Whether the time has now come to construct a trunk sewer from Raritan town to the Class C part of the river below New Brunswick should be determined somewhat by comparing the estimated cost of such a construction with the estimated cost of a shorter trunk terminating perhaps just below the Fieldville Dam with adequate facilities for treating the sewage before the effluent is allowed to escape into the Class B section of the Raritan. Even the trunk sewer terminating below New Brunswick should be equipped with screens and sedimentation tanks.

There are also to be considered the economic and biologic arguments for and against concentrating sewage treatment in one large plant in one locality or dividing the operation among several smaller plants separated as much as possible.



We deem it desirable also for New Brunswick and Highland Park to construct sewers with screens and sedimentation tanks on the meadows below Mill Brook. A large part of the expense of constructing a trunk sewer is in acquiring the right-of-way. Therefore if it would seem to be sufficient for the present to terminate the Somerville-Bound Brook sewer near the Fieldville Dam, the possibility of continuing the sewer at some future time past Highland Park should be borne in mind.

As any region develops from the primeval forest into a thickly settled industrial community the original drainage provided by Nature will have to be supplemented by artificial devices; and the successive steps by which any region will pass from the primeval to the artificial condition will depend on costs of construction and equitable assessment of those costs on the communities affected as well as on the increasing density of settlement.

To determine the relative costs and advantages of competing plans is beyond the present duty and ability of this Commission.

To determine the equitable assessment of such proper costs is now, and so far as can be seen, will continue to be a matter for the Courts, unless apportioned by agreement.

The law in New Jersey, as expounded by various decisions, seems to be that every riparian owner, individual or corporate, has an enforceable right to maintain the privity of the stream that flows past his premises, against polluters further up the stream. The Courts will grant riparian owners relief from pollution of the stream by up-stream parties, even though such "pollution" might be construed as "unreasonable" or "unnecessary" and the relief be thus limited.

As to the constitutionality of the scheme there can be no question. The right of lower riparian owners to the uninterrupted flow of the stream free from sewage or other polluting matters, has been frequently settled by the Courts of New Jersey. The scheme itself for the construction of a trunk sewer was passed upon and approved by the Court of Errors and Appeals of New Jersey in the case of Van Cleve vs. Passaic Valley Sewerage Commissioners, 71 N.J.L. p. 578.

Justice Garrison speaking for the Court said:-

"The statute, however, is not aimed at or addressed to the sewerage problem as it exists within any municipality. On the contrary it takes up that problem at the precise point where the municipality normally, if not necessarily, lays it down.\*\*\*\* To relieve a river from pollution, to construct and maintain for this purpose sewers running to the seaboard, or to other point of output, and to carry away in such sewers all that would otherwise pollute such river, is clearly within the power of the central Legislative body."

On the other hand it would be competent for the Legislature to delegate to a State Body, like the State Sanitary and Economic Water Commission, or other agency, the right to prescribe regulation under which sewage now being emptied into the Raritan River might be treated before discharged. Either of these schemes are competent constitutionally and within the power of the Legislature to prescribe. In any event the lower riparian owner is entitled to the free uninterrupted and unpolluted flow of the stream, and such right may be enforced by injunctive relief in equity



The Sanitary and Economic Water Commission, however, has no mandate to enforce the rights of down-stream interests against up-stream polluters except insofar as the down-stream rights have been asserted by specific legislation, and perhaps further as the recommendations of the Commission to the Legislature might be transpated into law.

The Commission is ready, however, to assist with all the means at its command any down-stream interest in any appropriate court action to abate any unnecessary up-stream pollution.

In the case now before us we suggest that New Brunswick and Highland Park proceed against Raritan, Finderne, Somerville, Bound Brook and other up-stream offenders to cease practices which are at present avoidable and destructive of the riparian values below.

And we further suggest that New Brunswick and Highland Park carry their sewage to a point below Hill Brook and treat it by screening and sedimentation before discharging it into the Raritan.

And we further recommend that the cities of South Amboy and Perth Amboy, which now discharge concentrated untreated sewage, improve conditions in the river by screening and sedimentation at every sewer outlet, for the reason that the beaches on Raritan Bay are becoming very valuable for recreation purposes.

Respectfully submitted,

THE SANITARY AND ECONOMIC WATER COMMISSION.

*Foregoing Report submitted to the  
Legislature of 1926 by Governor Selzer  
January 12, 1926 x See House Minutes  
1926 pages 50 and 51 x*