(Second Day)

P U B L I C H E A R I N G

BEFORE

SENATE COMMITTEE ON
REVISION AND AMENDMENT OF LAWS

ON

SENATE BILL NO. 272 - WATER BOND ACT
SENATE BILL NO. 273 - ON-RIVER WATER SUPPLY LAW, 1957

Held:
June 13, 1957
Assembly Chamber
State House
Trenton, New Jersey

MEMBERS OF COMMITTEE PRESENT:

Senator Wayne Dumont, Jr. (Chairman)

Senator Robert C. Crane

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SENATOR WAYNE DUMONT, JR. (THE CHAIRMAN): Ladies and gentlemen, I hope you will pardon us for getting under way somewhat late this morning. As a matter of fact, it wasn't many hours ago when we left these legislative chambers.

We will continue with the case of the proponents of the plan this morning under pretty much the same ground rules as we had last week, permitting questioning, but please make certain that you get your questions to us or at least give us the opportunity to pass upon their relevancy before you ask them.

In order to be fair, we will take these witnesses who were here for a long time last week and did not get an opportunity to testify. There are still two or three of those who wish to testify in favor of the plan.

The first one is Mr. George Shanklin, Chief Engineer and Acting Director of the Division of Water Policy and Supply. Mr. Shanklin.

G E O R G E R. S H A N K L I N: For the record, my name is George R. Shanklin, Chief Engineer and Acting Director of the Division of Water Policy and Supply of the Department of Conservation and Economic Development. May I express at this time, Mr. Chairman, my appreciation for the opportunity given me to appear at this hearing in behalf of the water development legislation proposed by Senate Bills 272 and 273.

The Division of Water Policy and Supply and its Council are charged by state law with the evaluation, conservation, and equitable allocation of the water resources of the state. We therefore have a direct and deep interest in the legislation under consideration today.

In the light of some thirty-odd years of experience and study of the water resources and water needs of the state, I can assure you that there is an urgent and immediate need for a state-wide plan and policy for the orderly development of our surface water resources by storage reservoirs as proposed by these bills. In order to grow and prosper, New Jersey must make full use of its water resources. There are enough natural water resources in the state to meet our reasonably anticipated needs, provided measures are taken now to insure the availability of reservoir sites when needed. In a small, congested, rapidly growing state, all reservoir sites, good and bad, are at a premium for other uses. The state's water needs for public and industrial water supply, irrigation, and recreation are now exceeding, in many areas, the dependable natural flows of our rivers and the developed capacity of our water supply systems.

The water development bills under consideration today provide the basis for the development of a sound plan and policy. As is to be expected in any new approach to an old problem, some provisions of the bills need clarification in the interest of equitable allocation of the water and to improve the administration and financing of the projects proposed therein. The broad policies proposed by these bills for the state to provide the leadership for the orderly development of its surface water resources and to limit its endeavors to the development of storage for maximum public use are sound. The choice of the Raritan River basin for immediate development is also sound. Whereas full engineering details are not yet available for the detailed design of the dams for the two proposed reservoirs and for the delineation of the exact lands to be acquired, the general sites selected for these reservoirs do conform to a sound engineering plan for the economical and immediate development of the surface water resources of the Raritan River basin with the minimum of displacement of existing communities and facilities.

The bills conform to the recommendations of the New Jersey Water Resources Advisory Committee which was appointed by Commissioner McLean of our department to investigate and develop a plan and policy for the maximum utilization of the state's water resources and an immediate project to meet the urgent water demands of our northeastern metropolitan counties. The recommendations of the committee are based on a sound engineering survey of the water resources and immediate needs of the state, with particular reference to the water resources of the Raritan basin. In this survey, full use was made of the material developed by the 1955 TAMS report to the Legislative Commission on Water Supply which had made a careful appraisal of the practicability and cost of available potential reservoir sites of the Raritan basin. The material provided by these two engineering studies is adequate, in my opinion, for the adoption of the proposed on-river reservoir program legislation.

My major concern refers to the presentation of this program so as to insure full justice to the merits of this legislation. The projects proposed are fundamentally for the conservation of water, much of which now rushes to sea during floods. The reservoir sites have been selected after careful study and evaluation of the merits of each site to develop the maximum benefits for all interests and all uses. The basic principle is to hold back the water on the upper reaches of the Raritan basin and release it when it is needed. Within the limitations of the stream flow regulation features inherent in this program, the on-river reservoirs also provide recreational features for swimming, fishing, and boating. Water supply is made available for public potable and for public and private industrial use to those interests willing to spend the additional funds required to utilize that water.

There is therefore no conflict between the water development program proposed by this legislation and by development of public water supply systems by private and municipal interests. The one program supplements the other. The basic principles and policies involved are of equal interest and are equally applicable to the ground water resources of South Jersey. Properly presented to the public, I am confident that the legislation herein contemplated would receive favorable support in the referendum this fall.

I am also deeply interested in the provisions for the allocation of the water developed by this program, for the protection of the interests of the areas of origin in which the reservoirs are to be located, for the sustained minimum flow to be maintained below the reservoirs, and for the role of recreation in the use of these reservoirs. As Dr. Nelson stated, our basic water law of 1907 is outstanding and has endured the test of time. The legislation proposed by these bills supplements and strengthens the 1907 legislation. Through state ownership of the water storage facilities it insures more equitable protection of the future water needs of the areas of origin. It also guarantees substantial low flows to meet riparian and other demands on the rivers below the reservoirs. Failure in previous water bills to satisfy these demands has created fears and distrust which have retarded our water development program for many years.

Equally important are the provisions for placing this program on a sound self-liquidating and self-sustaining financial basis. While this aspect has been carefully investigated by the committee and its engineers, time alone can prove the validity of our computations. Under normal business conditions, the allowances considered in making these estimates are ample, in my opinion, to insure adequate return without recourse to the emergency provision in the legislation for meeting the bonded indebtedness. The proposed legislation approaches this problem on a business-like basis by placing with the Commissioner

of Conservation and Economic Development full responsibility and sufficient authority to make these projects a success. When time has confirmed the wisdom of this program, provisions can then be considered to make the program self-continuing for the development of additional on-river projects as and when required and approved by the Legislature, without further reference to referendums on new bond issues. Thus, the state provides the initiative to inaugurate the development of its surface water resources and the leadership to insure adequate storage facilities, but does not become involved in continual appropriations for what should be a self-supporting activity.

There is no necessity for me to discuss in detail the question of need for the northeastern metropolitan counties. Numerous engineering reports in recent years have considered that question and are in agreement that some 300 million gallons daily of new water must be made available for that area by the year 2000. By this I refer to the Incodel report for the development of the upper Delaware River basin, the engineering testimony presented by New Jersey's experts in the 1950 New York City Delaware Diversion Case, and the 1955 TAMS report to the Legislative Commission on Water Supply, not to include the more or less continuous studies conducted by the Division of Water Policy and Supply since 1930. Whereas the Division had recognized the need for additional water supply as early as 1942, this need was not recognized by the public until the drought of 1949-50 forced curtailment of use. Since that date, the demand has continued to exceed the dependable supply, and but for the hurricanes in August, a repetition of the 1949-50 shortage would have been experienced in 1955.

The degree of shortage varies throughout the northeastern area and is influenced in large part by the present status and rate of industrial and residential development. The needs for the northern portion of the northeastern metropolitan area have been relieved for the present by the enlargement of existing developed supplies on the Passaic River and Hackensack River basins in accordance with the recommendations of the 1955 report to the Legislative Commission on Water Supply.

The immediate need in this metropolitan area today is for some 30 to 40 million gallons daily for use in the Union, Middlesex, and Somerset County areas which are experiencing rapid industrial and residential growth. These areas can be satisfactorily supplied from the on-river reservoir program contemplated by this legislation.

The development first of the Spruce Run reservoir will meet these immediate needs and at the same time provide the compensation flow which is essential to the equitable use of Raritan water for a Round Valley reservoir project. The two reservoirs are not to be considered alternates but rather supplement each other.

There is also need for the Stony Brook reservoir for water supply not only for the future water demands of the metropolitan area and the lower Raritan Valley but more important for the present needs in the areas of origin in Mercer County, and for stream flow releases to compensate for the high irrigation diversion now being experienced on the upper Millstone basin with adverse effect on the low flows of the lower Millstone River. Whereas the Rocky Hill reservoir site would have provided comparable water for the lower areas, it would not have satisfied the water needs of the Stony Brook area nor provided full compensation for the irrigation diversion on the upper Millstone basin.

These two reservoirs, Spruce Run and Stony Brook, thus supplement each other by providing the storage essential for the development of two of the major tributaries of the Raritan River basin. In the light of the westward industrial and residential expansion in Somerset and Hunterdon Counties and of other factors previously stated, I concur with the committee that the Spruce Run reservoir must be completed at the earliest date possible.

This statement in no way detracts from the value of the Stony Brook reservoir. It merely recognizes that for practical financial reasons the development of our water resources must proceed in steps which can be self-supporting.

SENATOR DUMONT: Mr. Shanklin, last week a question was asked of Mr. Ritter, I believe, about the various prices of some of these projects and why the Rocky Hill project, as I recall it, was passed in preference to the two that were recommended here. Do you have any comments to make about that?

MR. SHANKLIN: Senator, that is covered in my statement, which I will read again:

> "Whereas the Rocky Hill reservoir site would have provided comparable water for the lower areas, it would not have satisfied the water needs of the Stony Brook area nor provided full compensation for the irrigation diversion on the upper Millstone basin."

Rocky Hill is half-way down the Millstone River. Therefore, there would have been no stream flow regulation provided up stream of that point, in the Princeton-Hopewell-Pennington area.

SENATOR DUMONT: You are familiar, no doubt, with the Ken Lockwood Gorge in Hunterdon County. Would that serve as a substitute for Spruce Run, or is it inadequate?

MR. SHANKLIN: What is the name of that?

SENATOR DUMONT: The Ken Lockwood Gorge. As I understand, it is largely state-owned land, and I think it was Senator Lance who advanced that as a possible alternate for Spruce Run in Hunterdon County. It lies up along the south branch of the Raritan and back of High Bridge.

MR. SHANKLIN: Well, that's what we call the Bunnvale site.

SENATOR DUMONT: That's right.

MR. SHANKLIN: Yes. The Spruce Run reservoir site has been studied since 1930. I would consider that the Bunnvale site - that's the one that's close to Califon - is an alternate

for the Spruce Run and is undoubtedly a better reservoir site, but it has many times more displacements involved. As I recall, it is a thousand families, and therefore it was considered by our Commission in 1945 to be no longer feasible or practical.

SENATOR DUMONT: Is most of that state-owned land now?

MR. SHANKLIN: The gorge, itself, is but our dam would be at the head of the gorge. We would not destroy millions of recreation people as opposed to Bunnvale, because of the effect on the recreation. But our dam would be right at the head, near an old existing millpond, and it would not affect the gorge in any way, but it does affect the Town of Califon, the communities of Middle Valley and, I think, it's called Center Valley.

SENATOR DUMONT: Is it your opinion that this plan proposed would be self-sustaining right from the beginning?

MR. SHANKLIN: Provided we did not have a depression, such as we had in 1930. We finished the Wanaque Reservoir in 1930. When Wenaque was put into service, there was a deficit in dependable yield of approximately 50,000 million gallons a day. Wanaque brought in a hundred. Within a year, we had no sale for that water and the municipalities which furnished that project had a tough time meeting their indebtedness until 1938 or '40, before they began to get any revenue. That is a business risk we must face. We have had a steady increase from 1940 to date. Given a fair business situation, this project with the allowances that are being made by the Committee and its engineers, and other factors of safety, should pay.

SENATOR DUMONT: Have you had any opportunity to study this legislation that is now pending in the Legislature of Pennsylvania?

MR. SHANKLIN: Which bill are you referring to?

SENATOR DUMONT: Well, it's the bill that is sponsored by several members of the Pennsylvania Senate which, as I understand it, provides alternates between Wallpack Bend and Tock's Island for development of the Delaware.

MR. SHANKLIN: I am familiar with the fact that they are studying such legislation, but I have not seen the legislation.

SENATOR DUMONT: Can you tell me what your Division is doing at the moment in working with the Commonwealth of Pennsylvania, in regard to development of the Delaware on a bi-state basis?

MR. SHANKLIN: We have been meeting with them and coordinating our efforts with the Army Engineers' study of the Delaware River Basin. The Congress, by giving the engineers that assignment - the States are supposed to cooperate one hundred per cent.

SENATOR DUMONT: Is it your opinion that the Delaware will undoubtedly be needed as a source of water supply and water storage, regardless of this plan or any other plan for intra-state development?

MR. SHANKLIN: It definitely will. It has been included as part of our over-all plan ever since the 1922 report of the late Allen Hazen.

SENATOR DUMONT: Now, when you are referring to Round Valley as supplementing this plan, and this plan also supplementing Round Valley, are you thinking of Round Valley in terms of the present legislative restriction that only Delaware River water may be impounded therein, or of embroadening the sources of supply for Round Valley?

MR. SHANKLIN: If we maintain adequate stream flow regulations, as provided by Spruce Run, there would be no reasonable basis for the restriction - the use of flood water in the Round Valley Reservoir.

SENATOR DUMONT: How much water could actually be supplied to Round Valley out of sources other than the Delaware River?

MR. SHANKLIN: The report made by the engineer, Mr. Ritter, has estimated that the best we can get would be around 50 to possibly 60. It would depend upon the size of the pumping station, and the economics would govern that.

SENATOR DUMONT: And that would come out of where? The south branch of the Raritan?

MR. SHANKLIN: That is the most logical site, the chief and most logical point. But that would not destroy the use of Round Valley, Senator, for Delaware River water. We have a wonderful big reservoir there, 60 billion gallon, and it is by putting some supplementary storage on tributaries elsewhere that we could still get our 300 from the Delaware by way of Round Valley.

SENATOR DUMONT: Well, actually isn't it true that you couldn't possibly fill Round Valley except by going to the Delaware River?

MR. SHANKLIN: That is the unfortunate feature of Round Valley.

SENATOR DUMONT: Now, I would like to note before we go any further the presence of Senator Robert Crane of Union County, and also on my left Senator Sido Ridolfi of Mercer

County, who is not a member of the Committee but is here with us today.

Senator Crane, have you any questions?

SENATOR CRANE: Yes, I have a few, Senator Dumont:

Mr. Shanklin, regarding your discussion of the building of Wanaque and the tough time they had financially shortly after it was built, due to a depression, would you say that the demand for water, or a water shortage as existed in those days, is comparable to today or is today's need greater?

MR. SHANKLIN: I would say they are comparable. We had even more fantastic dreams of the future in 1930 than we do today. We are more realistic.

SENATOR CRANE: Now, sir, last week the question was asked as to how the TAMS, the Tibbetts-Abbett-McCarthy-Stratton Report, rated the four prime on-river reservoirs. You realize, of course, there are seven, but I am talking of the first development which they talked of - North Branch, Spruce Run, Stony Brook and Rocky Hill. Do you know if they ever intended to rate the reservoirs?

MR. SHANKLIN: I don't think they rated those four that you mentioned. They did have seven and they placed these four of ten billion gallons as the preferable on-river reservoirs.

SENATOR CRANE: Well, sir, would there be any feeling on your part that they could be rated. And I'll say it is a leading question because I had hoped that, if there was any thought, that Spruce Run and Stony Brook might be the preferable of those four.

MR. SHANKLIN: I had rated them myself before this study came out - North Branch and Spruce Run are undoubtedly the two that must have high priority. There is this argument between Rocky Hill and Spruce Run. For the reasons I have just said, Spruce Run, in spite of the higher cost, is preferable-- I mean, Stony Brook, in spite of the higher cost is preferable.

SENATOR CRANE: Are you aware of the statement in the TAMS Report with regard to Rocky Hill:

> "The site is relatively undesirable since in addition to the large area that would be inundated (2180 acres) it would be extremely irregular with numerous shallow fingers."

MR. SHANKLIN: That's true.

SENATOR CRANE: Do you feel that that makes it less desirable than Stony Brook?

MR. SHANKLIN: I fear that in Stony Brook we have many of the same objections, which you will have to try to overcome when you come to the detailed design.

SENATOR CRANE: Are they as great as the objections to Rocky Hill?

MR. SHANKLIN: I don't know the details on Rocky Hill enough to answer that.

SENATOR CRANE: Well, now, Mr. Shanklin, as to the price of water, would you say that water could be produced more cheaply from Spruce Run than from Stony Brook?

MR. SHANKLIN: There are two ways of answering that, Senator. As I recall the figures that have been quoted, Stony Brook is the more expensive reservoir. But from looking at the point of sale, the Spruce Run cost will have to be paid for

out of 60 million gallons new water, whereas, when we build Stony Brook we will have a hundred to charge it against.

SENATOR CRANE: Well, sir, those aren't fixed allocations at this time, and there could be more diverted than left in the river, could there not?

MR. SHANKLIN: That's one point that I feel very strongly on. I feel that your legislation should place the sustained flow not in the preamble but when you are defining your project. Our Council, under the 1907 law, has the right to require the minimum flow but in sanitary condition. That is substantially lower than the figures we are talking about, and which we compel New York City to provide in the Delaware. It is my feeling that we should treat our people just as well as we force New York to treat us. I am satisfied that this minimum flow of 100 million gallons for the two reservoirs is an equitable and reasonable sustained amount of flow.

SENATOR CRANE: The report here, sir, of the New Jersey Water Resources Advisory Committee made certain recommendations as to the flow and I know they provided for an increased flow in the river as well as diversion. It's your point that the flow in the river could not be lessened than what is represented by these recommendations?

MR. SHANKLIN: Yes, sir.

SENATOR CRANE: I wanted to establish that.

Would you say that in these bills, as they provide for the postponement of amortization for 10 years, this would avoid the difficulty that we ran into with Wanaque?

MR. SHANKLIN: Well, that was one of the points that I wasn't clear on, whether the bills did permit the interest charges

for the first few years after completion to be charged against the bond issue. I believe that should be in the bill. The investigation would indicate that ten years, the period that you just mentioned - I am pretty sure we would be all right. We ought to be able to sell 30 million gallons, depression or no depression.

SENATOR CRANE: And, since this is water simply let down into the river and it is suggested that we take it out of Bound Brook - actually the 30 million gallons have nothing to do with whatever reservoir is developed, is that correct, sir?

MR. SHANKLIN: You mean, whether you build Spruce Run or Stony Brook?

SENATOR CRANE: Yes.

MR. SHANKLIN: That is true. As Mr. Ritter said, if Stony Brook is built first, it would do exactly what Spruce Run will do.

SENATOR CRANE: All right. Well, now, to come back to your point, sir: In Senate 272, which is the bond bill, in paragraph 11, it says:

> "Bonds of each series issued hereunder shall mature in annual installments commencing not later than 10 years and ending not later than 35 years after the date of issue of such series..."

Do you feel that that is sufficient provision for postponement of amortization to avoid any immediate financial difficulty?

MR. SHANKLIN: Yes, sir. But does it cover the question of interest during a period of two to three years immediately after completion?

SENATOR CRANE: I don't know if it specifically says that. Actually it refers to interest but I don't see whether it's

specified as being paid the first year.

MR. SHANKLIN: For a few years, we should have it. You see, Senator, we are already in the water business through the canal, the State is; and we will have an increasing income from that. The water is comparable and, in my opinion, should have comparable charges. We shouldn't compete against ourselves. So we are better off than if we had nothing to start with.

SENATOR DUMONT: Senator Ridolfi, have you any questions?

SENATOR RIDOLFI: Senator, of course, I am not a member of this Committee, and I appreciate your graciousness in permitting me to sit here, but I feel I would be taking advantage of it if I pursued your invitation and asked questions. But, inasmuch as you asked me, I would appreciate it if I might ask just one and then I promise to keep quiet.

SENATOR DUMONT: Well, Senator Lance was here last week and he was asking questions because of his interest in this project, and there is no reason why you shouldn't.

SENATOR RIDOLFI: Except, Senator Dumont, I came here primarily to listen and I intend to do just that, but I will ask one:

Mr. Shanklin, do I interpret your remarks correctly in stating that in your judgment the primary purpose of this proposed reservoir at Spruce Run is to provide a source of water for eventual sale to commercial users?

MR. SHANKLIN: As one of the users. These reservoirs provide water for two purposes: water for sale within and without the basin, and water which is to be used and put back under the riparian principle. I am not a lawyer, so maybe I am

getting into deep water.

Under the riparian principle, a property owner is entitled to a reasonable use of the water in addition to his land, provided he returns it undiminished in quantity and unchanged in quality. Now, if the State could prove that we have provided beneficial use, I believe we could make a charge for that type of water. For instance, if you had a plant there that needed 30 million gallons a day to survive and the natural dependable flows were only ten, you have benefited by it and I believe we could sustain a charge. But there is water for sale in this, both within and without the basin.

SENATOR RIDOLFI: Well, sir, have your present studies indicated or permitted you to reach a conclusion as to whom your probable eventual users would be and in what percentage?

MR. SHANKLIN: We have investigated; we have no firm commitments on that, but it is reasonable that we will have 30 million gallons immediately or a few years after completion of the first project.

SENATOR RIDOLFI: For what purposes?

MR. SHANKLIN: For water in the Union-Middlesex County area. We have nothing up above yet.

SENATOR DUMONT: Senator O'Mara has some questions.

Ex_SENATOR O'MARA: Mr. Chairman, as I did last week, I would like to reserve my right to examine Mr. Shanklin until the testimony is submitted to the experts whom we have retained for evaluation, but there are several what might be called preliminary questions, which I would like to ask Mr. Shanklin at this time.

Mr. Shanklin, your estimate of the self-liquidation possibilities of this bill are based upon, I suppose, the accuracy of the estimates of cost and the possibilities of sale of the water.

MR. SHANKLIN: Yes. Senator, I would like to make a point that I have not personally made these estimates. These estimates were made by the engineers of the Committee in consultation with us.

Ex-SENATOR O'MARA: Engineers of what Committee?

MR. SHANKLIN: Of the Water Resources Committee. However, based on the assumptions and allowances, as I said in my statement, I feel that they are reasonable and have factors of safety.

Ex-SENATOR O'MARA: If it should develop, however, that the cost of acquisition, let us say, of the site of the Stony Brook reservoir is inadequate and that that cost should be greater than the cost assumed by the Committee, plus the allowance which the Committee has made for eventualities in the way of increased costs, the calculations as to the self-liquidating features of the plan would not hold, would they?

MR. SHANKLIN: No, they would not hold, but I do not consider that the administrator would be justified in proceeding with that project if the future computations, detailed costs, etc. disclose that this project would not be self-liquidating. That is part of the project.

Ex-SENATOR O'MARA: Now, in clarification of my own thinking, and I want to confess that I know nothing about these details - I am trying very hard to learn about them - who would be the probable purchasers of this water?

MR. SHANKLIN: In Stony Brook, five years from now?

Ex-SENATOR O'MARA: Yes. Or Spruce Run.

MR. SHANKLIN: Spruce Run - the first project, in light of our hearing, would be the Elizabethtown Water Company, possibly the Bridgewater area, the industries in that area, and further west. It is possible to deliver this water to the City of Elizabeth and Bayonne, neither of which now have a source of their own. There is a demand in North Brunswick Township and in South Brunswick Township. North Brunswick is more imminent. According to facts I have heard recently, there is a hope for industrial development in the northwest area around the Stony Brook reservoir which could use this water.

Ex-SENATOR O'MARA: Does the Elizabethtown Water Company presently secure any of its water from the Raritan?

MR. SHANKLIN: Yes, sir.

Ex-SENATOR O'MARA: Does it pay for that water?

MR. SHANKLIN: No, they obtain that under the 1907 law under grant and they have the right to divert 20 million gallons a day.

Ex-SENATOR O'MARA: Let's take Stony Brook as an example: As I understand the purpose of that reservoir, broadly speaking, it is to impound waters during the flood periods and release them during the dry periods so as to maintain a flow in the Raritan River. Is that roughly the purpose of it?

MR. SHANKLIN: To maintain a sustained minimum flow. If you had no demand, you would only let down enough to meet the requirements of sustained minimum flow.

Ex-SENATOR O'MARA: During what percentage of the year, how many days roughly- I know this might seem a silly question to you but it isn't to me.

MR. SHANKLIN: That's a very good question, Senator.

Ex-SENATOR O'MARA: It's a good one? Fine.

MR. SHANKLIN: We are getting that information together, at least the engineers are. From preliminary studies, I would say that on the average four years out of five, the reservoir levels would be drawn down not over a foot and that draw-down would probably occur after Labor Day. On Spruce Run, we have those figures worked out and the effect on Stony Brook would be comparable. For instance, in 1951 and 1952 the reservoir would hardly be drawn down. In 1953 it was drawn down appreciably. Again in 1946, '47 and '48 there was no effect or in 1950, but in 1949 it went down 15 feet. Now, once in 50 years, according to our records, those reservoirs would be practically empty; for instance, in 1930, '31 and '32. Our records do not go back beyond 1918, but we have records comparable so that we can safely say that that drought is one that has only occurred once in 50 odd years.

Ex-SENATOR O'MARA: Well, under ordinary circumstances then, could you give me a rough approximation of the percentage of time during the year when it would be necessary to release from Stony Brook reservoir in order to maintain the minimum flow in the Raritan?

MR. SHANKLIN: Those computations haven't been worked out but, roughly, I would say on the average of 30 to 60 days.

Ex-SENATOR O'MARA: Thirty to sixty days out of the year.

MR. SHANKLIN: On the average.

Ex-SENATOR O'MARA: Now, here is what puzzles me and I wonder if you can help my thinking on it: The Elizabethtown

Water Company has the right presently, under the 1907 act, to withdraw water from the Raritan without payment. The calculations on the cost and self-liquidating features of these projects assume that the water will be sold at, if I remember the figure correctly, $55.00 per million gallons.

MR. SHANKLIN: Twenty-five.

Ex-SENATOR O'MARA: Twenty-five? That's right. Now, assume that it is necessary to release waters from the reservoir in order to maintain the minimum flow in the Raritan, will that, in your judgment, have any effect upon the right of the Elizabeth-town Water Company to withdraw waters from the Raritan without cost?

MR. SHANKLIN: I would have to answer that a little indirectly, because the right of the Elizabethtown is a matter for the Water Policy and Supply Council to determine, and I cannot prejudge or investigate in advance what the Council might do. But I would like to point out that in the 1918 grant, there is a condition, which was accepted by the Elizabethtown, requiring them to participate, when required, in any development or storage on the Raritan.

Ex-SENATOR O'MARA: Well, I am not talking about the provision which requires them to participate in any cost of storage, but what puzzles me somewhat is this: If the Elizabeth-town Water Company has the right to withdraw water from the Raritan River without cost and if it is necessary to release the impounded waters in this dam at Stony Brook to maintain the minimum flow, and if the Elizabethtown Company continues to draw water from the Raritan River, even waters that are

coming down from this dam, how can the Elizabethtown Water Company be considered a prospective purchaser of this water?

MR. SHANKLIN: This amount, according to Elizabethtown, is new water. They are now before us asking for 20 million gallons - I think that is the figure - from the Canal. They are buying water from the Canal at the present time, and this is in addition to what they are now using.

Ex-SENATOR O'MARA: This is in addition to what they are now using?

MR. SHANKLIN: Yes.

Ex-SENATOR O'MARA: It is your thought, then, that the Elizabethtown Water Company can be charged at the rate of $25 per million gallon for the water that is released from these reservoirs into the river?

MR. SHANKLIN: My answer does not make any reference to the grant of 20 million gallons a day. For any new water, as I understand it, the Elizabethtown is not covered by the riparian principle. Water used for potable purposes does not come under that, and it is my understanding of the law that if the State develops extra water, a charge can be made for that water.

Ex-SENATOR O'MARA: Does that come under the grant of 1918?

MR. SHANKLIN: No, that does not. That, I cannot comment on because that is a matter for the Council to decide. They would have to re-open that case, hold a hearing in which the facts would be brought out, and that condition would then be interpreted by the Council.

Ex-SENATOR O'MARA: The provision of the grant that you referred to a moment ago, I assume is this: Paragraph 6, of the approval of the application of the Elizabethtown Water Company to divert waters from the Raritan and Millstone Rivers, approved

November 29, 1918. I will read paragraph 6 of that grant:

"The Board hereby expressly reserves the right in case it shall be necessary in the future to provide storage of storm waters along the Raritan and Millstone Rivers or their tributaries for the purpose of supplying municipalities or water companies that may lawfully take waters from the said rivers and their tributaries, to apportion the expense of providing the necessary storage among the petitioners and such other companies or municipalities as may, at the time, have a right to take waters from said rivers, said tributaries, or either of them, for public or domestic use, as may be equitable."

Would you not interpret that provision as giving to the Commission the right to apportion the cost of this dam among the Elizabethtown Water Company and whatever municipalities and whatever users of the water there are.

MR. SHANKLIN: Yes, that's reasonable, but you could have two ways to apportion the cost; one would be by lump sum which would be paid, and the other is by a rate which would be paid over a period of years.

Ex-SENATOR O'MARA: And if the cost of construction and the acquisition of the site, and the construction of the dam-- if the cost, itself, were apportioned among the users of the water, then there would be no necessity for a state bond issue, would there?

MR. SHANKLIN: At the present time, the Council does not have any application before it for a project on the Raritan River. We cannot initiate it and this is one of the benefits of this legislation, if it gives someone in this State enough

authority, enough money, to get started on something that we have been talking about since 1930.

Ex-SENATOR O'MARA: Mr. Shanklin, I call your attention to the fact that this provision is not limited to the Raritan River. It's the storage of storm waters along the Raritan and Millstone Rivers or their tributaries.

MR. SHANKLIN: That's right. It's the Raritan River Basin.

Ex-SENATOR O'MARA: I don't think you have answered my question.

MR. SHANKLIN: I don't think I can, because you have asked me what our Council would do and I cannot speak for the Council. If it had an application before it-

Ex-SENATOR O'MARA: I did not ask you what your Council would do. I asked you if it isn't a fair conclusion from the mere reading of paragraph 6 of this grant that if the cost of the acquisition of the site and the construction of the dam was apportioned among the Elizabethtown Water Company and the other users of the water, there would then be no necessity for a bond issue by the State. That's all.

MR. SHANKLIN: Well, the other users would be other users who come to us at the time. That is my understanding of that condition - that if and when a project were developed by interests on the Raritan Basin for storage of water, the Commission reserves the right to allocate part of that cost to the Elizabethtown in return for having given them 20 million gallons a day grant.

Ex-SENATOR O'MARA: All right. I have no further questions at this time.

SENATOR DUMONT: Mr. Shanklin, there's a gentleman from Hunterdon County who has some questions he would like to ask you, and if he will identify himself he may proceed:

C A R L H E I T Z M A N: I am Carl Heitzman, a taxpayer, from Union Township, and I am well acquainted with the area that is involved, being a fisherman also.

Mr. Shanklin, regarding the proposed Bunnvale dam site which you spoke of, I believe you mentioned the fact that it would in no way do away with the recreational area of the Lockwood Gorge. I think that Senator Lance and the question that Senator Dumont posed to you before had reference to a dam site which would be at Lake Solitude, just outside of High Bridge on the south branch of the Raritan which would hold, I would say just by guess, easily twice as much water as Spruce Run without flooding the Village of Califon. Has your department or have your engineers actually made a survey of the logic or of the feasibility of a dam site at Lake Solitude, which could, I believe, feed the Round Valley site by gravity?

MR. SHANKLIN: No study has been made of a dam of height such as Lake Solitude, of such height as not to flood out Califon.

MR. HEITZMAN: No study has actually been made of using the state-owned land in the Lockwood Gorge; is that correct, sir?

MR. SHANKLIN: So far as I know, no. It may have been done before I came with the State, but not since I've been with the State.

MR. HEITZMAN: All right. Thank you.

Now, in regard to the feasibility of the Spruce Run reservoir again, sir, have your engineers made an actual

estimate of how long it will take to fill a ten billion gallon reservoir at Spruce Run with the present flow of the Spruce Run and the Mulhocoway Creek at the low water stage which they are now in and at which stage your Department will no longer stock trout because of poor water conditions.

MR. SHANKLIN: They probably have. I think that question ought to be directed, Senator, to Mr. Ritter who has made the study. I have not seen that, except that I do know that that reservoir can be filled in a reasonable time, - other reservoirs of that magnitude are filled - without drying up the stream to interior flowing. We would apply to this reservoir the same rule that we apply to any reservoir or any pond, and that is that the low flows must be maintained during the filling of the reservoir.

MR. HEITZMAN: Now, sir, I would just like to ask you one question in regard to the feasibility of a recreational area around the Spruce Run reservoir. According to page 18 of the Smith Report, as it has been called, the top item shows 65 m.g.d. flow, a total of 65 million gallons, in the south branch of the Raritan. With the Spruce Run reservoir, it shows a total of 150 million gallons per day, or a difference of 85 million gallons per day.

Now, I previously had this argument at Clinton Township School with Mr. Ritter, and I asked Mr. Ritter the same question which I would like to ask you, but first I'll tell you what he told me. I asked him what the drop in Spruce Run would be with a 40 million gallon a day drop down- river, and he estimated originally a half inch and then it was changed to three inches. Now, with the 85 million gallons a day difference between Spruce Run and no reservoir, as shown in the Smith Report,

what is your estimated drop per day in the Spruce Run reservoir?

MR. SHANKLIN: I am not trying to evade your question, but it's very complex to answer just the way you expressed it.

The flow at Bound Brook vicinity on the lower river is composed of water coming down the Millstone, down the North Branch, down the South Branch, natural flow, plus what is let out of Spruce Run. In order to maintain the flow, as shown on page 18, that is 90 million gallons in the river and 60 for use, or a total of 150, the engineers for the Committee have taken the record beginning with 1930 and computed what the drop in water level would be for full draft on the Spruce Run reservoir. To give you a few figures - in 1951, beginning about the second week in September to the first week in October, it would have gone down about a foot. The balance of the year it would have been filled. In 1952, it's a similar occurrence for about the middle of October to the end of November. Now, in 1953 we had some dry weather. Beginning the middle of July, it dropped 15 feet by the middle of November, and was full again by the end of April in 1954. Now, that was assuming that we were selling all that water during those periods. In the worst period of drought, 1930, the reservoir would have been down beginning the end of June and it would have dropped down 25-27 feet by the end of November. It did not fill completely in 1931 - about a foot shy. In December of 1931 it went down about 13 feet. It filled in March 1932 but it went down again 30 feet, and then it filled in 1933. As I recall the record, it stayed filled until about 1938, because that was a flood period.

MR. HEITZMAN: Then, sir, actually as far as vertical distance goes, this reservoir would drop anywhere between a foot and you said, I believe, 27 feet was your maximum figure.

Wouldn't it be true that in a low rolling area such as this reservoir will lay in that the exposed area of the reservoir, which would not have water in it, would be approximately eight times or ten times the vertical distance?

MR. SHANKLIN: It would in Spruce Run. That is approximately true. I don't know the depository. But I would like to emphasize that that condition on the average is one year out of five.

SENATOR DUMONT: Here are some more questions, Mr. Shanklin:

Wouldn't water from the Stony Brook reservoir first be used in the Stony Brook area, then downstream on the Millstone, and then only for other parts of the valley and the State?

MR. SHANKLIN: Yes. That would be the preferable way to do it. The water, under this legislation, is to be allocated by the Water Policy and Supply Council. I don't mean by that that we can reserve without payment, or should reserve without payment, water for ten years in advance, but in allocating water for the downstream users it is our present practice and would be continued, to consider the need and to be sure that there is a source of water for the upland areas when they need the water.

SENATOR DUMONT: Here are a couple of questions by Mr. Malcolm Crooks:

If a sound engineer's estimate was in hand on the cost of the reservoirs, based on full engineering and geologic data, would it be necessary to include clauses in Senate 272 to assure the payment of the bonds by diversion of income from the Delaware and Raritan Canal and from a tax on real property in New Jersey?

MR. SHANKLIN: Well, that provision, sir, for assuring payment of bonds is on the question of dependable income, in the early stages of the project. It doesn't matter too much what the cost of the project is. The rate we are charging or the rate this Committee is recommending, and the rate that the Commission would fix, would be based on sufficient income to meet it, provided we could have a reasonable amount of demand.

SENATOR DUMONT: What northeastern municipalities are currently expanding their water systems or are in the process of doing so, including those now holding hearings with the Division of Water Policy and Supply?

MR. SHANKLIN: The Hackensack Water Company has constructed a reservoir in New York State by which they have increased the yield on the Hackensack River 20 million gallons a day, ten of which, according to the New York Water Board Control, can be used in New Jersey. The City of Newark has obtained a grant to construct a new reservoir at Charlotteburg and construction on that is to start this year. The Commonwealth Water Company obtained a grant for diversion of water from the Passaic River near Chatham and are building a reservoir into which it can be pumped. As I recall the figure, it is 17 million gallons a day. We now have an application before us from the City of Jersey City for the

Upper Longwood Valley Reservoir, which incidentally is the identical type of reservoir that we are considering in this legislation.

I am pleased to hear that, according to the newspapers, the Passaic Valley Water Commission is endeavoring to get started on their Pointview Reservoir, which would greatly increase the dependability of their Little Falls supply. There has also been some expansion in groundwater development.

MR. CROOKS: On that point, you have mentioned Hackensack, ten million gallons in New Jersey; Commonwealth 17 million gallons; what is Newark? Do you know?

MR. SHANKLIN: As I recall the figure, it is 7 or 7-1/2. I haven't got the figure.

MR. CROOKS: And Jersey City?

MR. SHANKLIN: I think it is 11 or 13. I'm not sure.

MR. CROOKS: And Passaic Valley?

MR. SHANKLIN: Passaic Valley could firm the flow from 35, which we estimate to be the dependable yield, to 65.

MR. CROOKS: Do you have any estimate of the development of ground water resources in that area currently?

MR. SHANKLIN: The largest one is one that we just approved for the City of East Orange. They are rebuilding their wells and will increase their yield about 2 million gallons a day. I think the exact figure is 1.8.

MR. CROOKS: Are there any others that you know of?

MR. SHANKLIN: Nothing of that point magnitude, no.

MR. CROOKS: Thank you.

SENATOR DUMONT: Mr. Hauck?

ANTHONY HAUCK: It is true, is it not, that there are several concerns along the Raritan that have riparian rights and take water from the Raritan now?

MR. SHANKLIN: You are referring to the Raritan River?

MR. HAUCK: Raritan River, down around Manville, Somerville, Bound Brook, and New Brunswick.

MR. SHANKLIN: That, Mr. Hauck, is a legal question, but I'll try to answer, knowing that I'm not a lawyer. As I understand riparian rights, if it goes with the property, whether you use it or not, it is your right to take a reasonable amount of the water out of that river and use it under the conditions specified.

MR. HAUCK: Well, does your department have any record showing how much water is taken by those various companies?

MR. SHANKLIN: We have no record and no control.

MR. HAUCK: Is there any other department in New Jersey that keeps a record of how much water is withdrawn?

MR. SHANKLIN: No, sir.

MR. HAUCK: Don't you think it is necessary from an engineering standpoint, in issuing a report like the Smith Report, to know what those companies are doing?

MR. SHANKLIN: The TAMS Report did investigate and report on an estimate of what was being done. They did that under the so-called private industrial use. Many states are considering and have enacted legislation whereby a small fee is charged for recording those rights, and they report the amount of water used.

MR. HAUCK: Well, isn't it true there are industries that have taken out a tremendous amount under those riparian rights?

MR. SHANKLIN: And they are putting it back.

MR. HAUCK: Yes, and putting it back. But they are putting it back more or less in a polluted stage in some instances; isn't that true?

MR. SHANKLIN: That may be true, but if they do they are doing it in violation not only of the common law but of specific state laws.

MR. HAUCK: Well, now, Mr. Shanklin, when the water gets low now in the Raritan and the use of the purchase now of the water from the Raritan has presented evidently a crisis where your department feels that these two reservoirs are necessary--isn't that correct?

MR. SHANKLIN: It's not only on the Raritan. It is on all rivers. An example of abuse and neglect is the Passaic River below Paterson. That river has been very effectively developed by reservoirs for water supply over a period of years but none of them provided for any increased flow. There is no reason why our rivers should be cesspools. They should be clean streams, useful for recreation, fishing and other matters. Now, we insisted that New York do that on the Delaware. For every two gallons that New York City was permitted to take, we required them to put one down our river.

MR. HAUCK: Well, if we use water from Spruce Run and Stony Brook to increase the flow of the Raritan, it will be giving to the so-called riparian right owners more water to use at times, will it not?

MR. SHANKLIN: Yes.

MR. HAUCK: Don't you think they should be made to pay for the use of that water?

MR. SHANKLIN: Personally, yes.

MR. HAUCK: Mr. Shanklin, did you attend a meeting in Easton not too long ago between representatives of Pennsylvania and New Jersey in reference to Delaware water diversion?

MR. SHANKLIN: Yes.

MR. HAUCK: Do you recall a representative of Pennsylvania asking a representative of New Jersey what New Jersey's plan was for the future, and the New Jersey representative stating, "Well, you know that we in New Jersey have a Raritan River project?"

MR. SHANKLIN: Yes.

MR. HAUCK: Do you think that that statement being made by the New Jersey representative left any kind of impression on the Pennsylvania group that perhaps New Jersey was not too interested in hurrying any Delaware River project?

MR. SHANKLIN: No, I do not.

MR. HAUCK: Because of the Raritan River project?

MR. SHANKLIN: No, I do not, because we have a direct, immediate interest in the Delaware River for South Jersey, as well as for North Jersey. Remember, we are one of four states on the Delaware which have a divided interest. For every gallon you take out of the Delaware River for North Jersey, you are potentially hurting South Jersey, and therefore we have to be very careful. If we could get Wallpack Bend tomorrow for this purpose, I would be delighted. We need it to develop 3400 cubic feet per second at Trenton for the benefit of the lower river. Now, once we get Wallpack Bend, then we can begin to talk about another reservoir into which we can pump water out, but until

we get Wallpack Bend - those stream flow regulations - we are stymied. We should sponsor Wallpack Bend with every effort we have.

MR. HAUCK: You think, then, that the State of New Jersey should hurry as is humanly possible with all the red tape the diversion of water from any part of the Delaware?

MR. SHANKLIN: Yes, but first we've got to provide the storage for regulation on the Delaware. That is the complication. Now, we have an opportunity now, with the Army Engineers' study. Remember, reservoir sites are difficult to obtain, and on the Delaware our best reservoir sites are in New York State. The Incodel Report shows that. Pennsylvania and New Jersey cannot go into New York State and build but the Federal Government can, and maybe by doing that we can increase the amount of water.

MR. HAUCK: One more question, Mr. Shanklin, and then I'm through: Don't you think it would be more feasible and more efficient if the State of New Jersey, either your department or some other division or body, spent money for an efficient and proper engineering report to float these reservoirs before presenting the matter to the Legislature and to the people? (Applause)

MR. SHANKLIN: I cannot agree with that. We have made a survey report. This is standard procedure. The Incodel Report on the upper Delaware River was typical and comparable to this information here. They made a report on the feasibility and an engineering estimate with allowances for the cost. Legislation was prepared and proceeded with. We did the same thing ourselves back in 1930, and we recommended Bunnvale. The main purpose of this study was to select-- or let me go

back further. The one value of the TAMS Report was to evaluate what reservoir sites in the Raritan Basin and on the Delaware, too, were now available, because of built-up conditions, were practical because they would do the trick, and were feasible as to the matter of cost and dam construction. They recommended, I think it is some 30 or 40 odd combinations of projects. We took that report, the Committee did, concentrating on the Raritan after reviewing the other possibilities, selected two, and the third to come, which will develop on the Raritan 320 million gallons a day off of 776 square miles. I am happy with that figure. That is about what we are or can get off the Passaic River, which is the same size. Now, we get 50 off of Hackensack, 320 off of the Passaic, 320 here and 300 from the Delaware; that gives us almost a thousand. And that is better than we hoped to get in 1922 when Hazen made his report, or it's just as good. We haven't lost out.

MR. HAUCK: Well, Mr. Shanklin, do you know of any record of a survey having been made about 20 years ago on the Spruce Run site, which was abandoned?

MR. SHANKLIN: I don't recall any.

MR. HAUCK: Is your department aware that a great portion of the Spruce Run area is full of so-called sink holes caused by pervious limestone deposits, one of which is large enough to sink a house, and that the farmers have lost machinery and cattle in some of these holes and have been filling them with garbage and other refuse in order to fill them up? Has that part been tested by the engineering group or groups?

MR. SHANKLIN: I don't know whether they have investigated that feature or not. The Department has not made any detailed study except that we have had an examination made of the dam site shown in the report and of one other site, and the report I have is that they are both practical dam sites. But those things, Mr. Hauck, will be carefully studied before the Department actually starts to acquire or build. Otherwise, the Department would not be playing fair with the Legislature.

MR. HAUCK: But, Mr. Shanklin, isn't that just like buying a pig in a poke? When a man buys a house he investigates how much the taxes are, how much for the insurance, how much oil he has to pay for to heat it, where the nearest school is, and so forth, but here in the great State of New Jersey, are the members of the Legislature, who are the trustees of the pocketbooks and the resources of the State, going to allow this to be done - have the bond issue passed, go in and buy the land and then find out that it is not practical or economical? Do you think that's right?

SENATOR DUMONT: Just a minute. Mr. Hauck, please just ask questions because you will have an opportunity to make a statement in opposition when the opposition goes on. But I would appreciate it if you would confine yourself to questions now on any testimony that Mr. Shanklin has given.

MR. HAUCK: Well, suppose, Senator, I limit it to the last part of my question: "Do you think that's right?"

MR. SHANKLIN: I consider that we have sufficient information to determine that that is a practical, feasible and immediate project.

SENATOR DUMONT: I might add, before we go any further, that the proponents will have an equal opportunity to examine the opponents if they so desire when the opponents are making statements, so that this will be conducted on the same basis for both sides.

Now, here is another question from Mr. Crooks: How much water will be diverted from the Raritan River by the New Brunswick trunk sewer authority when its facilities are complete within the next few months?

MR. SHANKLIN: That is the New Brunswick trunk sewer?

SENATOR DUMONT: That's right.

MR. SHANKLIN: I do not have the figures.

SENATOR DUMONT: Mr. Shanklin, what's your opinion as to which is the better of the two prospective sites in the Delaware River - Wallpack Bend or Tock's Island?

MR. SHANKLIN: Assuming that the Tock's Island dam site is a practical dam site, according to the Engineers' Report, the Tock's Island is undoubtedly the best, because it provides almost twice as much storage.

SENATOR DUMONT: Isn't it also perhaps better from the viewpoint that it looks like the only one that any federal appropriation might be made for?

MR. SHANKLIN: Well, I was considering it first just from an engineering viewpoint. I would want to make this statement: Whereas Wallpack Bend has no appreciable adverse effect on land in New Jersey, the Tock's Island will back up on Flatbrook, but some day, in my opinion, we will need a reservoir on Flatbrook so it's just a matter of whether you do it today

or 30 years from now.

SENATOR DUMONT: How far into the Flatbrook Valley would that back water?

MR. SHANKLIN: If it's built as a multiple flood and recreation reservoir, the permanent reservoir would not go too far up, Senator. We don't know, because the Army hasn't told us. It would go up enough to provide boating access to the entire lake for the residents of Flatbrook. I think it's a town called Flatbrookville. That's right down near the mouth. Now, the flood waters would back up quite a bit further.

SENATOR DUMONT: Would they back up as far as Layton?

MR. SHANKLIN: I think it's in that vicinity.

SENATOR DUMONT: Senator Crane has a question.

SENATOR CRANE: These are my last questions, Mr. Shanklin:

Do you believe we can "get by" just going to the Delaware or do we need an interim program to provide to the time we go to the Delaware?

MR. SHANKLIN: We need water tomorrow if we could get it, and there isn't any way of getting water that soon from the Delaware.

SENATOR CRANE: Sir, do you agree that this legislation establishes a plan to sell the increased water supply in the Raritan made available by the two dam structures we have talked of - that this legislation provides for the sale of the increased water made available by these dams? Is that correct?

MR. SHANKLIN: It provides definitely for the sale of that water marked for use. That is a legal question. That would be water which is used in the area or on the stream and put

back in.

SENATOR CRANE: Well, what I meant was - we couldn't sell this water without providing first the increased flow. Is that correct?

MR. SHANKLIN: You couldn't sell it anyway, no. We do - I mean, there is some confusion. In 1907, the Legislature did an excellent job on that drafting and that law has been copied by many States. In order to provide an income for this control, they established a tax called the "excess diversion tax" on surface water. The tax rate may be anywhere from one to ten dollars per million gallon diversion in excess of what they were taking out in either 1907 or the population of 1905. If they maintain the minimum flow specified by law, then the tax must be $1.00, but for every day they drop below that flow we can put on a higher rate. Some of them have dried up the stream entirely and have been charged the full $10.00 rate. And that is the source of our income for our whole division.

SENATOR CRANE: Well, sir, with a provision in this law, and I say "with a provision" making it a future condition because it was my suggestion at our first session that we amend the law so to provide, that riparian users who would benefit by the improved water supply, the water improvements made, should be charged - do you believe if that were put in, then, that anyone would benefit without having to pay some price and therefore share a burden of the cost?

MR. SHANKLIN: I have had some experience, Senator, in these federal benefit programs, such as the Stony Brook watershed, soil conservation project, and the Army Engineers, in which the whole justification is based on benefits. It is

going to be a very difficult proposition to prove beneficial use in many cases. I have discussed this with the Attorney General's Office. Under basic law, I understand, if we could prove such a use, we could make the charge.

SENATOR CRANE: Well, sir, would you say that irrigation was a beneficial use?

MR. SHANKLIN: Irrigation is very complicated. Irrigation violates the basic riparian principle, because practically no water is put back. However, here in the northeast, and I have examined it with different committees, no court has yet said no to the farmer. They have developed the theory or the principle of beneficial use, and they have allowed it. But it is still contrary to the basic principle. So irrigation could be charged, in my opinion for what it's worth, for at reasonable rates. In other words, I think we should have the rate established which would vary with the type of use.

SENATOR CRANE: Well, Mr. Shanklin, let's not get into a hassel with the farmers, but is it true that in the TAMS Report they pointed out that that diversion for irrigation exceed a million gallons a day in the height of the season?

MR. SHANKLIN: I don't recall the TAMS figure, but this irrigation in New Jersey and the Northeast is a very important factor for the farmer in his business. Without it, he cannot compete. It is growing by leaps and bounds. We cannot, ourselves, get reliable figures. It has occurred, for instance, on the upper reaches of the Swimming River, to the detriment of about 3 million gallons a day for 90 days.

SENATOR CRANE: Well, sir, switching now to yet another subject of use of this water, since opposition to the

E-town request for water from the canal has developed, would it be reasonable to assume that they then would be a customer for this new water provided? I think you will admit that the opposition to it has been considerable.

MR. SHANKLIN: The opposition has been considerable and there are points, which I am speaking about now in my own mind--the D & R Canal's greatest advantage is for industries which want to locate along it its entire length, and I feel that rather than allocate a large percentage of it to any one party, it would serve the State better to spread it out in smaller quantities.

SENATOR CRANE: Well, now, sir, we know that the last two clauses in the bond act, providing for revenues in case this should not be self-sustaining in the beginning, are objectionable; is it a reasonable suspicion that, if charges were made for diversion for irrigation for the riparian use by industrial organizations, where they still return the water, and also through sale to commercial firms like the E-town water firm, in all probability we would not be in financial difficulty, since we can also postpone the amortization under this act for 10 years? Don't you feel that there is a reasonable thought that this can be successful?

MR. SHANKLIN: Yes, sir, I do. I think the only thing that can upset it is a depression worse than in 1930.

SENATOR CRANE: That's all, sir.

SENATOR O'MARA: May I ask another question or two?

SENATOR DUMONT: Go ahead, Senator.

Ex-SENATOR O'MARA: Mr. Shanklin, in response to Senator Crane's last question, that was based upon the assumption that a charge could be made to the riparian owners for the riparian use of the water. Now, you have said several times that you are not a lawyer. But don't you think that you would have great difficulty in sustaining a charge on the riparian users for the right which the common law gives them to use that water free?

MR. SHANKLIN: I so testified when I was talking about that beneficial use. Our estimates, Senator, on the self-liquidating features of this project did not consider any charge. The Division has had two industries in the last year wanting to locate adjacent to the Millstone in one case, and the other was on the Delaware. They had no riparian rights, but they were willing to pay any amount of money, any reasonable amount of money, if they could make use of the stream, because they could not make use of that stream, they had to locate elsewhere. So I look to find a large number of industrial consumers who now will be permitted to make use of this water, who will put it back when they are through in good quality and, therefore, it is a clear profit.

SENATOR O'MARA: The reason for my question, Mr. Shanklin, was simply because you answered a question of Senator Crane based upon the assumption, as I got it, that a charge could be made to the riparian owners. I don't think that is a valid assumption, and I think you agree with me.

MR. SHANKLIN: I agree with you and I'll make the same statement if we'll eliminate the charge to the riparian owner.

Ex-SENATOR O'MARA: All right. Now, I understood you to say earlier in your testimony that you considered Stony Brook preferable to Rocky Hill--

MR. SHANKLIN: Yes.

Ex-SENATOR O'MARA: -- because a dam at Rocky Hill would do nothing for the Stony Brook area.

MR. SHANKLIN: A reservoir at RockyHill.

Ex-SENATOR O'MARA: All right, a reservoir. And that, therefore, the reason that you consider Stony Brook preferable is that a reservoir at Stony Brook would enable the maintenance of a minimum flow for the vicinity of Stony Brook.

MR. SHANKLIN: And also a water supply shed.

Ex-SENATOR O'MARA: All right. Now, there is no flow now; I mean, at the present time, this season of the year, in Stony Brook; isn't that so?

MR. SHANKLIN: It's low.

Ex-SENATOR O'MARA: Low? There's no water coming over the dam at Carter Road there.

MR. SHANKLIN: We have a gauging station. I don't have the records, but I don't think there is a day of no flow.

EX-SENATOR O'MARA: Have you ridden around that area in an automobile lately, like Mr. Ritter did some months ago?

MR. SHANKLIN: I am familiar with the area. We have had many flood problems in the lower reach.

Ex-SENATOR O'MARA: Well, I rode around it a few days ago and all I saw there were some stagnant pools, no flow at all.

MR. SHANKLIN: That's the purpose of this regulation reservoir, Senator, to provide water.

EX-SENATOR O'MARA: Now, let me ask you this: If there were a reservoir at Stony Brook, would that be used first for the purpose of maintaining a minimum flow in the Millstone?

MR. SHANKLIN: Yes. That is one of the provisions that I think ought to be made mandatory in the legislation. Indirectly, it has been so stated.

Ex-SENATOR O'MARA: What, in your judgment, would be that minimum sustained flow, let us say, in the dry months of the year?

MR. SHANKLIN: It would be comparable to the hundred million gallons eventually developed at Bound Brook at the junction of the Millstone and Raritan Rivers. I have not computed the figures.

EX-SENATOR O'MARA: You have not computed them?

MR. SHANKLIN: No. For instance, it could be expressed - if you took that flow that we are recommending here of 120 eventually, divided it by the drainage area at that junction, which is roughly 776 square miles, and then multiplied it by the drainage area at the point in which you are interested, that is the sustained minimum flow that you should get.

Ex-SENATOR O'MARA: Well, would it not then be necessary to release water from this reservoir during the dry months for the purpose merely of sustaining the minimum flow in the Millstone and the Stony Brook area?

MR. SHANKLIN: Yes.

Ex-SENATOR O'MARA: How much of a drop would that cause in the reservoir?

MR. SHANKLIN: As I said, I was reading from diagrams given me by the engineer for the Committee, and those figures I quoted before were based on those flows being maintained.

One of the difficulties we have, Senator, in getting a water supply is that most of the time nature is pretty good to us in New Jersey. She gives us enough water, enough rain, so that we don't have too bad a condition. But those figures can be made available for you if you wish.

EX-SENATOR O'MARA: Now, one more question, sir: What, in your judgment, would be the minimum sustained flow in the Stony Brook area from, say, October until May?

MR. SHANKLIN: We would compute it on the same basis that I just outlined to you. Whenever the stream flow, regardless of the month, would drop below that figure, water would be released. That is what we mean by "sustained minimum flow."

Ex-SENATOR O'MARA: Can you tell us how much that would be?

MR. SHANKLIN: No, I don't have the figures.

EX-SENATOR O'MARA: All right. But at any rate, it would be necessary to release water from this reservoir before September to maintain a sustained minimum flow in the dry months?

MR. SHANKLIN: If I understand these diagrams correctly, it did not have to work out in those years that I quoted, because there was sufficient in-flow to meet those low-flow conditions. We have not got the full records yet worked out for Stony Brook, but that information will be made available as rapidly as it is developed.

EX-SENATOR O'MARA: One or two others, Mr. Shanklin: Would it be possible for you to find out for us how much diversion from the Raritan takes place because of this New Brunswick trunk sewer?

MR. SHANKLIN: The diversion? Yes, I could find out.

EX-SENATOR O'MARA: I wish you would.

MR. SHANKLIN: The diversion sewer in New Brunswick is the Middlesex County trunk sewer, and that would start at the county line which is at the junction of the Green Brook with the Raritan River, about a mile upstream of Fieldville Dam. In that reach, I think there are only two industrial diversions.

EX-SENATOR O'MARA: Well, will you undertake to find out that information for us, please?

And one other thing: There were questions asked during the hearing last week, and I don't recall that we got any satisfactory answer, as to what the income of the State is from the Delaware and Raritan Canal. Do you have those figures?

MR. SHANKLIN: Yes, I have.

Ex-SENATOR O'MARA: Will you let us have them?

MR. SHANKLIN: May I make one qualification? We have no records of industrial diversion from the river, and the only way I can get this information that you want about the diversion will be from the Middlesex Trunk Sewer Commission, I guess it is, or Authority. But I'll try to get it.

Now, on the Canal, in the fiscal year 1955-56 - I'll give you figures in the nearest hundred dollars - we obtained from canal revenue $122,000-- pardon me: From the sale of water $107,000, about $108,000, and from canal properties $14,400, giving us a total income of $122,400. Our expenses were, roughly, $94,500, leaving a surplus of about $28,000. That included no allowance for improvements. We estimate for the fiscal year 1956-57 that our surplus or net income will be about $27,000. I have some estimated figures on

enlarged sales. Those are based on sales of about 40 million gallons a day. Assuming that we are selling 60 for the first five years, in which some of them will be paying less than the full charge, our income would be approximately $60,000. After they have begun to pay the full charge, it will approximate $96,000. The very best we could hope for, selling all the water at maximum price, but at the present-day prices, would be about $200,000.

EX-SENATOR O'MARA: Just one more question, Mr. Shanklin: Is there another trunk sewer involved in the Raritan?

MR. SHANKLIN: There are two trunk sewers. I have no official knowledge of it. There is one of the Middlesex County Authority, which picks up the flow, the sewerage, at the Somerset-Middlesex County line, and discharges it into the bay. That is my understanding. Another one, I believe, is almost completed and will be in operation soon. Another one is being considered in Somerset County which will return the water to the river near the county line after treatment.

Ex-SENATOR O'MARA: Is that the Bound Brook area?

MR. SHANKLIN: That's the Bound Brook area, yes.

EX-SENATOR O'MARA: Thank you. That's all at this time.

SENATOR CRANE: Now, while it's easy to agree with Senator O'Mara's questioning, Mr. Shanklin, concerning the legal troubles involved in making charges to riparian owners, do you believe in view of the point that we are putting the State in the water business, developing raw water, that we should at least review the possibility of doing this?

MR. SHANKLIN: Yes, I think we should review it. Other states are considering it. We're not the only one. Other

states are considering it even when they are not putting any project up. But I don't think that the charge that you can make may be enough to warrant the expense of administration. If we have a situation whereby there is a beneficial use, I do not anticipate any trouble with the industry because it will be all to their advantage to have the water available.

SENATOR CRANE: Well, then, in other words, we should not overlook entirely this possible source of revenue.

MR. SHANKLIN: We would not. I think under the legislation as it stands now, the Department would and should consider it.

EX-SENATOR O'MARA: Senator Crane, may I say off the record that I would be very much in favor of your investigating the possibility of it, because I am sure it would lead to litigation, and that's how lawyers make their living.

SENATOR CRANE: I simply wanted to say, Senator O'Mara, that I appreciate that comment. Harvard Law School is making a study of interstate charges on water and, I believe that a study should be conducted of intra-state, to bring everything into perspective here.

EX-SENATOR O'MARA: As I said before, I'm all for it.

SENATOR DUMONT: Now, are there any further questions of Mr. Shanklin?

If there are none, thank you very much, Mr. Shanklin, for being here this morning. I know you had to take time away from a meeting and we appreciate your coming. Might I ask if you would be willing, in the event of any further questioning, to come back on a future occasion?

MR. SHANKLIN: Any time you say.

SENATOR DUMONT: Thank you very much.

Now, Mr. Hauck in one of his questions referred to the desirability of a charge for additional water in the Raritan for the benefit of riparian owners. Mr. George Smith, Chairman of the Citizens Water Resources Advisory Committee, would like to comment on that.

G E O R G E S M I T H: Mr. Chairman, I think Mr. Hauck's point of view is quite valid and I am very much interested in the exchange between Senator Crane and Mr. O'Mara. I would like to place before you the facts as to the Committee's considering the question of the charge for additional water supplies that would be available to riparian owners, industries in particular, through these reservoir facilities. The Committee included, I think, a representative of the company to which Mr. Hauck was alluding, who was among those who authorized me as Chairman to ask of the Attorney General whether there could be a way in which the industries and others who were riparian right owners could be charged for the additional supplies that might result from these reservoirs.

SENATOR DUMONT: Senator Crane has a letter which he would like to read into the record.

SENATOR CRANE: This was not my letter, Senator Dumont, but the one which Mr. Smith brought to us, and I believe that he only wanted one sentence of it read, but would like the whole letter put into the record. It's more or less to the point, I believe, of substantiating the validity of engineering services with respect to Leggette, Brashears & Graham, and their groundwater surveys. This is a letter from the Camden County Chamber of Commerce and talks of the

Water Resources Committee of the Camden County Chamber of Commerce and of the Southern New Jersey Development Council meeting together and commending the Water Resources Advisory Committee on their report. One sentence here reads:

> "The said report being the most authoritative and constructive statement of ground water conditions in Southern New Jersey which has heretofore come to the attention of this joint committee.."

Mr. Smith requests that this letter be placed in the record.

SENATOR O'MARA: The entire letter will be in the record?

SENATOR DUMONT: Yes, the entire letter will be entered in the record. This letter is dated June 4, 1957.

CAMDEN COUNTY CHAMBER OF COMMERCE
625 Cooper Street, Camden 2, New Jersey

Mr. George F. Smith, Chairman June 4, 1957
New Jersey Water Resources Advisory Committee
c/o Johnson & Johnson
New Brunswick, New Jersey

Dear Mr. Smith:

The Water Resources Committee of the Camden County Chamber of Commerce and of the Southern New Jersey Development Council each respectively having great interest in the water resources of Camden County and of the other five counties which constitute the Southern New Jersey Development Council area met for joint consideration of this mutual problem at Bridgeton, New Jersey on the 28th day of May 1957 and jointly adopted the following resolution.

WHEREAS the two committees have previously noted with great concern many statements of a public nature concerning the alleged inadequancy of the underground water supply of Southern New Jersey with particular reference to alleged salt water intrusion "problems" in the Atlantic "Coastal Area," in the vicinity of Camden and in lower Delaware Bay

AND WHEREAS the two committees having now noted with great satisfaction that part of the "Summary Report on the Ground Water Resources of New Jersey" by R. M. Leggette dated April 9, 1957 which is appended as Exhibit E to the "First Report of the New Jersey Water Resources Advisory Committee" transmitted to Commissioner Joseph E. McLean

under the date of April 25, 1957 by its Chairman, Mr. George F. Smith. The said report being the most authoritative and constructive statement of ground water conditions in Southern New Jersey which has heretofore come to the attention of this joint committee.

AND WHEREAS the committee notes that the said report finds that:

> "Beneath the land surface of New Jersey there is a great quantity of water . . . This volume of water is vastly greater than all the water contained at any particular time in the rivers, lakes and storage reservoirs on the land surface.- Essentially all of more than 2000 sq. mi. . . . is an area of very high infiltration capacity.- It is . . . apparent that from the standpoint of the quantity of ground water available in South Jersey, there is no present shortage of the over-all resource nor will there be for many years in the future.- The development of additional ground water . . .need not be restricted to large centralized projects such as the Wharton Tract."

AND WHEREAS certain differences of opinion exist between various authorities and agencies having knowledge of ground water conditions in Southern New Jersey as to the critical nature of alleged salt water intrusion and other problems which need clarification in the interest of general understanding and progressive development of this area,

AND WHEREAS the report by Mr. R. M. Leggette included with the "First Report of the New Jersey Water Resources Advisory Committee" makes certain recommendations for a program of ground water studies in New Jersey, part of which include the lower Delaware River Valley, the Atlantic Coastal Areas and the Interior Plain all located in Southern New Jersey,

Now THEREFORE BE IT RESOLVED that this joint committee recommend to the Board of Directors of the Camden County Chamber of Commerce and to the Trustees of the Southern New Jersey Development Council that they each convey to the Commissioner of Conservation and Economic Development and to the Water Resources Advisory Committee their satisfaction with the report and the suggestion that a joint conference be arranged between representatives of the

> Commissioner of Conservation and Economic Development
> Water Resources Advisory Committee
> Camden County Chamber of Commerce and
> Southern New Jersey Development Council

for the purpose of exploring more thoroughly the information which is already available with respect to ground water conditions in Southern New Jersey and for preparing specific

specific plans for expeditiously implementing the program of ground water studies for those areas of Southern New Jersey where question exists as hereinbefore briefly outlined as to availability of large water supply potential.

WHEREAS the Water Resources Committees of the Camden County Chamber of Commerce and the Southern New Jersey Development Council have met jointly and after careful and deliberate study of the "First Report of the New Jersey Water Resources Advisory Committee" have jointly adopted a resolution noting with great satisfaction that said report being the most authoritative and constructive statement of ground water conditions in Southern New Jersey which has heretofore come to their attention,

NOW THEREFORE BE IT RESOLVED that the Board of Directors of the Camden County Chamber of Commerce do herewith convey to the Commissioner of the Department of Conservation and Economic Development and to the Water Resources Advisory Committee its satisfaction with said report and the suggestions and recommendations contained in the joint committee resolution.

Sincerely yours,
/c/ Lloyd D. Simonson
President

SENATOR DUMONT: The next witness will be Mrs. Virginia Van Dyke, who is the legislative representative of the New Jersey League of Women Voters and, I believe, also Chairman of their Water Study Committee. Mrs. Van Dyke is from Chatham.

M R S. V I R G I N I A V A N D Y K E: Senator Dumont, Senator Crane, and Senator Ridolfi: The League of Women Voters of New Jersey is in favor of Senate Bills Nos. 272 and 273, which provide for a $14,000,000 bond issue referendum to purchase reservoir sites at Stony Brook and Spruce Run and construct a reservoir at the Spruce Run site. We base our endorsement of these bills on the following points: (1) our state's need for new water supplies for all purposes (potable, agricultural, industrial and recreational) is daily becoming more urgent; and (2) it is vitally important that the virtually untapped Raritan-Millstone River Basin be developed for the many benefits that can

be derived from this valuable resource.

State-wide consumption of public potable water is expected to jump from the 588 m.g.d. used in 1954 to 1058 mgd in the year 2000. Water company experts tell us that by 1965 the northeastern metropolitan area of the State alone will need an additional 150 million gallons of potable water daily. About half that amount can be provided by expansion of existing supplies now being undertaken. This area must look for additional supplies outside its own boundaries since Nature has not seen fit to always provide water resources in the same proportion as water demand. However, this is not the only area in the State facing a rather immediate water problem. For instance, according to the 1955 TAMS Survey of New Jersey Water Resources Development "ground water aquifers are already being pumped at or above capacity along the lower Raritan River and some salt water contamination has occurred in the Farrington sand formation. The dependable ground water supply along the Raritan River (in the southern part of Middlesex County) is probably somewhat less than the present rate of pumping... The present dependable supply for this area. . . would be unable to meet a sustained high seasonal demand if it coincided with an extended dry period without dangerous overpumping of ground water supplies." The additional 90 m.g.d. that would be supplied by the Stony Brook and Spruce Run reservoirs would help greatly in answering our potable water needs both within and outside the area of supply.

Not only potable, but agricultural, industrial and recreational water needs must be met, too. Again, referring to the 1955 TAMS Survey, we find that irrigated agricultural areas

in the Raritan River Basin are expected to increase from 3,535 acres in 1954 to 5,200 acres in 1960. This means irrigation requirements in the area will jump from 1,060,000 gallons used in 1954 to 1,560,000 gallons by 1960. Industry, too, requires large amounts of potable and non-potable water. It is estimated in the 1955 TAMS Survey that industry consumed nearly 3 billion gallons of non-potable water daily in 1954. If we are to encourage industrial growth in New Jersey, we can expect additional demands on our water resources. Water for recreational purposes is also in increasing demand and provision must be made for this use for the comfort, enjoyment and health of our citizens .

For the past two years, the League of Women Voters has been studying New Jersey's water needs and the resources we have to meet these needs. One of the conclusions reached from our study is that priority should be given to developing the Raritan River Basin for (1) water supply diversion to meet the demands of that portion of the northeastern metropolitan area which lies outside the basin; (2) water supply to meet present and future needs within the basin; (3) water supply for irrigation, recreation and stream pollution abatement; and (4) flood control as may not be detrimental to water supply development. It is our understanding that the intent of S-272 and S-273 is to carry out these objectives. This river basin is similar in size and potential yield to the developed Passaic River Basin, yet in dry seasons it produces only 1/15th as much water as the Passaic. It is estimated that the Raritan River Basin is capable of producing a minimum of 200 m.g.d. for use outside the basin plus 150 m.g.d. for sustained minimum flow for the use of the lower river. In addition to

the many benefits that can be realized from the Raritan River Basin, we have the advantage of the basin being located completely within our State's boundaries, making it possible for New Jersey to develop and manage this resource at our own discretion. Since the bond issue for developing Chimney Rock was defeated at the polls in 1955, it would seem that the only remaining course of action available for developing the Raritan River Basin is the small dam sites plan, part of which is under discussion today.

Since New Jersey is a small, congested and rapidly-growing State with relatively few good reservoir sites, we do not have numerous alternatives open to us. Therefore, it can be expected that obstacles, opposition and honest disagreements to almost any water development proposal will be forthcoming as they have been in the past. Often desirable reservoir properties are also desirable residential properties, and this conflict of interests is a heart-rending one to resolve. Part of this unfortunate situation is due to the fact that needed reservoir sites for future use are not acquired well in advance and the area is allowed to be developed for other purposes. The League of Women Voters regrets such situations exist, but believes that the welfare of the majority of the people of the State must take precedence.

Then, too, there is usually fear on the part of those sections of the State which lie in the area of the source of supply that their needs and interests will be jeopardized by the development of water resources, particularly if these new supplies are to serve areas outside the region. We believe these fears can be alleviated if proper explanation and understanding is forthcoming. Senate 273 proposes to supply water on the

basis of need to those in the area of the source of supply as well as to those outside the area. In addition, the source of supply area will receive benefits not now available to it in the form of an increased, sustained minimum stream flow of more than twice the amount that can now be counted on. This will be a great boon to present and future riparian owners. It must be further explained that impoundment of water to achieve the goals would take place during periods of high flows, not on a day-in-day-out basis, and that otherwise these water would eventually just run out to sea doing no one any good.

Another concern often voiced in that restrictions placed on watershed areas would impair the economic development of these areas. At present all the watershed area above Bound Brook comes under laws pertaining to potable watersheds, so these regulations are already in effect in those sections of the State. But, going further, modern water treatment methods, which are moderate in cost, and a change in philosophy regarding the use of watershed areas make reasonable development perfectly possible today. We can see this is true when we look at the recreational development of Greenwood Lake and adjacent areas which have not been retarded by the development of the Wanaque Reservoir. Still another example, the Ramapo River Diversion Act, can be cited to show that the interests of the supply region and the demand area need not be in conflict.

In addition to these problems, we can expect differences in engineering opinion and the feeling that too hasty action is being taken. Since the vast majority of the members of the League of Women Voters are not engineers and have no intention of trying

to become engineers, we can only urge that such differences of opinion be ironed out by engineering experts when construction plans are being formalized. It is unfair and impossible to expect citizens as a whole to determine which schools of engineering thought are correct. What voters want to know is that the over-all purpose and aims of the proposal are needed and that every facet of the construction problem will be carefully scrutinized and worked out before the building program is undertaken. Enough leeway should be given to the Department of Conservation and Economic Development to make any changes or modifications in development plans that seem necessary as discussions and conferences continue. When citizens are asked directly or indirectly to indicate by their votes their approval or disapproval of a given plan, they are inclined, and perhaps rightly so, to disapprove if too many technical and unexplained questions are thrown at them. As to hasty action, New Jersey has already waited much too long before acting on measures to meet our water needs. We cannot afford to put off these decisions longer. Numerous studies and recommendations have been made over a period of years, and the same projects are proposed time and time again. If additional study is still needed, we hope it can be achieved without undue delay and that it will not be allowed to interfere with action to provide the necessary revenue to accomplish the final plan.

The League of Women Voters believes that development of the Spruce Run and Stony Brook reservoirs is a proper project to be undertaken by the State of New Jersey. Since these projects should ultimately lead to a plan for total development of the Raritan River Basin, they will be of benefit to many areas. The State is in the best position to allocate the new supplies on a

fair and just basis and to make provision for meeting water needs.

Although the League is in favor of developing the Raritan River Basin, we do not believe this is the whole answer to our State's water problem. We feel there is great need for the state to formulate a long-range, state-wide water resources development plan. Too long have we lived from water crisis to water crisis with our only hope being Providence will save us. The lack of such long-range plans foster the kind of misunderstanding and opposition to proposals that has followed water development recommendations in the past. We believe that an over-all, long-range water resources development plan should be set up now and that it should include immediate state acquisition of reservoir sites such as the North Branch that will be needed for future use. This action would place residents in the area of these sites on notice and prevent additional, innocent displacement of homes and businesses. Acquisition of future water development sites now would save money, for, as we know, real estate prices are on the increase and the longer we wait the more we shall have to pay to acquire the necessary property, plus running the risk that the property may become so developed as to make it no longer available.

The League also believes that a sustained groundwater study should be made in New Jersey in conjunction with the federal government and we have supported current legislation (Senate Bill No. 68) and an item in the appropriations bill to serve this purpose. We hope the Assembly will aprove Senate 68 as the Senate has already done, because it is necessary, in spite of assurances that yearly appropriations will be made, to have the principle endorsed and on paper to assure continuity of the study.

In addition to this action the League of Women Voters endorsed the original proposal advanced by the 1956 Legislature to purchase Round Valley but we do not believe subsequent action limiting the development of this site to water from the main stream of the Delaware River was wise. The time element involved is considerable before surveys of the Delaware River Basin are completed, agreements are reached with other states bordering the basin, diversion rights are granted by the Supreme Court and financial, managerial and development plans are arranged. New Jersey could better afford to wait for these steps to be taken if we proceeded with the first stage of Round Valley by using water from the South Branch of the Raritan and then used Delaware water for the site's full development. We have, therefore, endorsed Senate Bill No. 69 and Assembly Bill No. 1 which would make it possible to use Raritan River water for the Round Valley site. We hope the 1957 Legislature will act favorably on either of these two bills. Not only would these measures make Round Vally reservoir a reality sooner, but they would also fit into the plan we are discussing today which is basically to develop the Raritan River Basin.

The League of Women Voters of New Jersey earnestly urges the Legislature to take immediate, positive steps to help solve our water supply problems by planning for future needs, acquiring sites for future use, removing the present limitation on Round Valley and proceeding with plans to develop the Raritan River Basin. We sincerely hope that leadership in the State will provide our citizens with the information they will need to make an intelligent decision when it is called for. As for our part, the League will make every effort to do the same and continue

to work for and support policies and plans that contribute to a sound water resources development program for New Jersey. (Applause)

SENATOR DUMONT: Are there any questions of Mrs. Van Dyke? Mr. Hauck?

MR. HAUCK: Mrs. Van Dyke, have your Mercer County and Hunterdon County units approved this report?

MRS. VAN DYKE: Are you referring to the Advisory Committee's Report?

MR. HAUCK: Yes.

MRS. VAN DYKE: I could go into a long explanation as to how the League of Women Voters work, but briefly for the past two years we have been studying the water supply question in New Jersey. This booklet is just part of the information we put out for our members to study. As a result of that study, our members came to certain areas of agreement. Among those areas was the need for state-wide planning and one which pertains to your question that priority should be given to the development of the Raritan River Basin. Authority for endorsing specific legislation, such as the two Senate bills we are talking about today, falls up to the State Board of the League of Women Voters. We ask, when we feel we are authorized by consensus that has been reached from the membership; we felt that consensus gave us the authority to endorse the two bills before us today.

MR. HAUCK: Well, do you know whether this problem, particularly the Spruce Run reservoir site, was presented to the Hunterdon County Unit, and the Stony Brook to the Mercer County Unit?

MRS. VAN DYKE: Not any more specifically than it was presented to the other 86 Leagues in the State of New Jersey.

SENATOR DUMONT: Any other questions? Mr. Crooks has one here: It says, "You infer that potable watershed laws assure the upstream areas from harm to their economic development from water supply reservoirs designed to serve primarily downstream users. What are these laws and how do they make these assurances?"

Now, I am not sure that that's a fair question, but you can answer it to the best of your ability.

MRS. VAN DYKE: Well, I'll try to answer it.

As I understand it, in trying to wade through Title 58, the one restriction that I found there was that no factory site could be located above the head of the watershed that was being used for public potable supply. In checking with people who know more about this than I do, of course the reason for that is so that no bad quality effluence will be allowed to penetrate, but as far as reasonable development is concerned in other industry, agricultural or residential, there seems to be no conflict of interest between what the law states and what kind of stipulations it places on the area and what the area itself can do by way of development. We can see that illustrated, as I mentioned, in the area that is affected by the development of the Wanaque Reservoir. That has still become one of our favorite residential and recreational sections. As far as the Ramapo Diversion Act was concerned, that made special provision for times of the year when water could not be taken out of the river so as not to harm the interests of the area. They specified how much water at other periods of the year

could be taken out, again so that it would not be in conflict with the needs and uses of that area of supply, and we have, as far as assurances given to us, understood that it is perfectly possible to expect reasonable development in a watershed area.

SENATOR DUMONT: Are there any other questions?

H O W A R D J O H N S O N: My name is Howard Johnson and I would just like to ask this lady one question: Is it true that a Mrs. Merrill of Trenton, who is either President or Past President or Vice President of your organization- that her husband works for the Water Policy Division?

MRS. VAN DYKE: That's true but I can't see what bearing it has on the statement.

SENATOR DUMONT: Anything else? Mr. Crooks?

MR. CROOKS: I would like to ask, did the New Jersey League of Women Voters consult with anyone who opposed these bills prior to the issuance of their statement?

The point I am trying to get at, and I don't mean to be at all nasty here- the point I am trying to get at is that the League has a history of studying both sides. To what degree did you carry that particular point out?

MRS. VAN DYKE: We did not go out and seek information from the opposition. On the contrary, they came to us and asked if they could supply us with any of their findings that might have a bearing on our decision. At that time our decision had been arrived at, although I said that I would welcome any information that they might have given me. I have received none. We felt, again on the basis of the consensus that our membership reached, that being authorized to endorse specific pieces of legislation and noting that priority had been given to the

development of the Raritan River Basin, also noting that since the Chimney Rock referendum was defeated, the only alternative left was the development of these small dam sites. And in our estimation, these two sites that were picked as a beginning were at least a start in the right direction.

SENATOR DUMONT: Any further questions?

Now, before we recess for lunch-- Thank you very much, Mrs. Van Dyke. We can't possibly, or at least I wouldn't think we could get through all the witnesses who have indicated they want to testify today. There are still three or four people who are proponents, and then there are some opponents who were here last week, whom I would not want to ask to come back another time, and they probably will want to testify today. So with a whole page of opponents listed here who would like to be heard today, I'm afraid we can't get through them all, and I would like to work it out so that we don't inconvenience anybody too seriously. If any of you want to talk it over before we recess for lunch, I would be glad to speak to you about it. But I don't see how we possibly could accommodate all these witnesses today.

Now we will recess at this time until two-fifteen and it will give you an hour for lunch. We would like to start promptly at that time so we can wind up at five o'clock today.

(R E C E S S)

(Afternoon Session)

SENATOR DUMONT: Let's resume the hearing now. The first witness this afternoon will be Mr. William J. Orchard who is speaking on behalf of the Water Supply Committee of the New Jersey State Chamber of Commerce. Mr. Orchard is from Maplewood, he has been here on many occasions testifying about the water programs before the Legislature. It is nice to see you, Mr. Orchard.

MR. WILLIAM J. ORCHARD: My name if William J. Orchard. I am a member of and here at the request of and representing the Water Supply Committee of the New Jersey State Chamber ofCommerce, a committee comprised of 30 representative citizens of member companies of the New Jersey State Chamber of Commerce from various sections of the State of New Jersey.

My statement, Members of the Committee, will be brief, particularly in view of the information contained in Mrs. Van Dyke's statement, representing the League of Women Voters, the overall conclusions of which I personally subscribe to and I am sure the Water Supply Committee of the New Jersey State Chamber of Commerce would also endorse.

I think it is well for the record to briefly let the Committee know that I am a graduate Sanitary Engineer from the Massachusetts Institute of Technology; I was Assistant Engineer in the Massachusetts

State Department of Health; I was in the Engineering Department of the Metropolitan Water Board of Boston; I was Assistant Sanitary Engineer of the State of New Jersey; since 1915 I have been with the Wallace & Tiernan Industries of Belleville; I was the first National Director to the American Waterworks Association from its New Jersey section; I am a honorary member of that Association and its present Treasurer; I am a licensed Professional Engineer in the State of New Jersey.

I think the record should show that in 1920 the six northeasterly counties of New Jersey, that is, Hudson, Bergen, Union, Passaic, Essex and Middlesex, in public water supplies used two hundred million gallons of water per day. In 1930, which was a very dry year that Mr. Shanklin was speaking about, the need had risen to three hundred million gallons a day and in that year, very, very fortunately, the Wanaque Reservoir of the North Jersey District Water Supply Commission was placed in operation and that was the last major water supply development in the State.

For 1954, as you learned from the T.A.M.S. Report, those same six northeastern counties were using four hundred and fifty million gallons of water a day with various areas having a stringent shortage, and by the year 2000 the minimum estimate is that seven hundred and fifty million gallons of water will be needed per day. My own figures approach nearer

the billion gallon mark.

My concern and the concern of the New Jersey State Chamber of Commerce is that while cities like New York - and may I incidentally refer to the Incodel project - New Jersey was willing but Pennsylvania kicked the Incodel project around so long that New York City couldn't wait and went ahead on their own with the development of the gigantic Canonsville project and spending the necessary money so that the City of New York now has taken care of its public water supply needs through the year 1995, according to the best engineering estimates. The City of Boston, through its Metropolitan Water Supply has taken care of its water supply needs through the year 2000.

As Mr. Shanklin said this morning, New Jersey hasn't taken care of its 1957 water supply, particularly if the next five months repeat the statistics of the past five where the rainfall has been five inches less than normal. We are just on the borderline.

The Chamber of Commerce Water Supply Committee adopted five fundamental principles in the years that they have been working, with meetings frequently once a month and never less than every other month. The five point program of the Water Supply Committee, which was endorsed by the Board of Directors of the New Jersey State Chamber of Commerce, if I may quote:

1. Endorses the current expansion plans for new resources by municipal and private water companies

and urges all possible development of other available resources.

That's the new reservoir extension that you were told about this morning which the Hackensack Water Company undertook and constructed up in New York State; that's the addition to the Passaic Valley Water Commission's Supply, the addition to Newark, the addition to Commonwealth Water, etc. We urge all of that done that can possibly be done because it will really be such a minor part of the overall long-range need.

The Committee recommended that the Round Valley Reservoir site be purchased. It was purchased, though no provision is made for filling it with water.

That negotions with neighboring states on water supply, flood control and recreational problems in the Delaware Watershed be pressed vigorously. We can't emphasize that too strongly.

4. That the Raritan Watershed be developed.

5. That water resources in South Jersey, notably at the Wharton Tract and in the Camden area be developed as needed.

This water supply problem in the State of New Jersey is an immediate one and it is also a long, long range one. I know how through the last 40 years the Legislature and the Senate and various State bodies have struggled with this water supply problem. I know

they have tried to be Legislators, we now need vision, we need long-range vision. Our situation is such that any increment could supply us. This engineering report that we have, this report of the Water Resources Committee which the Chamber of Commerce Water Supply Committee endorses and recommends for your favorable consideration, says that probably this will take care of the needs of the area that it will serve for from seven to ten years. If so, that will be an advantage but in addition to that we need all of these projects which are being talked about and we need all of the long-range program, including the development of the Delaware.

If the State of New Jersey progresses as the Department of Conservation and Development predicts that it will, as the National Association of Manufacturers predicts that it will in their bulletins, we are going to need to use far more of the water that nature blesses New Jersey with and we are now using. We are greatly blessed, Members of the Committee; almost infallibly in New Jersey nature will deposit from 40 to 48 inches of rainfall per year throughout the State. All but a very very small portion of it runs to waste to sea. It is not available in those dry periods when we feel the drought because we do not have enough storage facilities. New Jersey's water supply problem is a very complex one from the standpoint of location of reservoirs. I can't blame the folks who live in an

area one iota for not wanting to be disturbed. If you knew as the Chamber of Commerce knows of the number of industries that are not coming to New Jersey because of lack of dependable water; if you knew of industries who have built branches out of the state because they could not depend on the water supplies that they have; if you knew that a continuance of the growth of industry in New Jersey is essential to our economic well-being; if you appreciate that one-fifth of all the chemical industry in the United States is located in New Jersey and that its payrolls are over a half a billion dollars a year;if you can appreciate the sufferings and the troubles that have occurred in sections of the northeastern part of the State because of shortage of water over the past five years; you will understand why the Water Supply Committee of the New Jersey State Chamber of Commerce recommends this legislation and commends it to your favorable consideration.

Thank you for this opportunity to address you.

SENATOR DUMONT: Any questions of Mr. Orchard?

EX SENATOR O'MARA: Just one or two.

SENATOR DUMONT: Senator O'Mara.

EX SENATOR O'MARA: Mr. Orchard, I rather gathered from your statement that your Committee had not specifically approved these particular projects. Am I right or am I wrong?

MR. ORCHARD: The resolution of the Committee, Senator O'Mara, was that the Committee endorse the report of the Water Resources Committee, recommended the legislation contained in the two bills in question and directed me to come to this hearing and so report.

EX SENATOR O'MARA: I didn't get that from your statement and I am glad to hear the clarification.

I wondered if your Committee gave any consideration to the soundness of the self-liquidating phase of the project.

MR. ORCHARD: Many members of the Committee have been associated with this overall water supply problem in the State of New Jersey for many years. It is the opinion of that Committee that the engineering work that has been done and the studies that have been made indicate that the project can be self-liquidating. I don't know whether it was to you, Senator O'Mara, or one of your colleagues a good many years ago that I suggested the possibility of the water resources of the state being used as a material source of revenue for the state. Whether the thing is self-liquidating or not depends entirely upon the rate charged for water. The need is there.

EX SENATOR O'MARA: Did your Committee have more than one meeting at which this project was discussed?

MR. ORCHARD: Yes, sir. We had two full meetings devoted only to it and it was discussed in

a portion of another meeting.

EX SENATOR O'MARA: Were you present at all of the discussions?

MR. ORCHARD: I was, sir.

EX SENATOR O'MARA: Was there any discussion as to the necessity of the provision that there be a general ad valorem tax included in the bond bill?

MR. ORCHARD: There was not.

EX SENATOR O'MARA: Did your Committee give any consideration as to the method in which the interest on these bonds was to be paid prior to the time when water could be sold?

MR. ORCHARD: It was in the report, if you had studied it, sir, that the allocation or the request for funds was sufficient to carry the Spruce Run project until the water was sold in sufficient quantity to make it a self-liquidating project.

EX SENATOR O'MARA: And what did your Committee understand by the allocated funds?

MR. ORCHARD: The allocated funds? I don't understand your question.

EX SENATOR O'MARA: I understood you to say in answer to my previous question that the report of the Committee - I suppose you mean Mr. Smith's Committee's report?

MR. ORCHARD: Yes, sir.

EX SENATOR O'MARA: -- said that there would be

sufficient in the allocated funds to pay for the project until water could be sold.

MR. ORCHARD: Right.

EX SENATOR O'MARA: Now what did your --

MR. ORCHARD: The report states that bonds would be sold only if needed. It also states, if I recall it correctly, that enough bonds would be sold for the Spruce Run project which was scheduled to be started first, to build the project, place it in operation and carry it on until it was self-supporting.

EX SENATOR O'MARA: And then the Stony Brook operation was to come along some years later.

MR. ORCHARD: The report says only after one-half of its indicated output had been contracted for.

EX SENATOR O'MARA: I am wondering whether or not your Committee gave any consideration to the question of how the interest on the bonds was to be met prior to the time when water would be available for sale from the Spruce Run project, first.

MR. ORCHARD: I think the report states pretty clearly.

EX SENATOR O'MARA: Will you point it out to me, please?

MR. ORCHARD: Well, you can find it. You have it handy. I have too.

EX SENATOR O'MARA: All right. I have the report. Thank you. I can find it.

MR. ORCHARD: You always were smarter than I, Ed, in finding references.

EX SENATOR O'MARA: I have recollections of incidents in the Constitutional Convention where the contrary was true. That's all I have now, Mr. Orchard. Thank you.

SENATOR DUMONT: Does anyone have anything further? Senator Crane has a question.

SENATOR CRANE: Just a repetition, perhaps, of your earlier testimony, Mr. Orchard. Do you believe that we can wait probably ten years to resolve our water problem before gaining water from some major development?

MR. ORCHARD: I do not.

SENATOR CRANE: Thank you, sir.

SENATOR DUMONT: Mr. Hauck would like to ask a question.

MR. HAUCK: Mr. Orchard, your organization has always been a great champion of economy in state government, hasn't it?

MR. ORCHARD: We have, sir.

MR. HAUCK: Does your Committee feel that these bills should be passed and the bond issue put up to the public before an efficient proper engineering survey is made of both reservoir sites?

MR. ORCHARD: I have enough information that

enough inspection of the proposed dam sites would be made and, if I may be pardoned, enough experience in over-all water works engineering to know that there are no basic engineering problems involved in these two sites which would justify any delay.

SENATOR DUMONT: Mr. Orchard, how long do you think -- maybe this isn't a fair question, but how long do you think, with proper pressing of the situation between the two states by the governors and the legislatures, it would take to develop the Delaware on a bi-state basis?

MR. ORCHARD: Well, all I can do, Senator, is to go back to the Incodel experience. You know how earnest we were.

SENATOR DUMONT: Right.

MR. ORCHARD: The Incodel, for the benefit of those who do not know, was a project which was going to tap the upper-Delaware, supply all the water-supply needs of Philadelphia, maybe of Wilmington, a great big pipeline across New Jersey to go over into Manhattan and out of that aqueduct would be tapped water for Metropolitan New Jersey and any other sections of New Jersey that needed it. It was a magnificent conception and a practical conception. New Jersey was willing, you and your predecessors here in these chambers voted a treaty with Pennsylvania, and so did New York and so did Delaware. But Pennsylvania kicked

it around, as I have described. Now, we can't go to the Delaware - and I want to point out to you too, Mr. Shanklin has said that if you take water from the Delaware you have got to put compensating flows back in the Delaware. We don't control the Delaware. The United States Supreme Court and the United States Congress along with contracts which we might make with Delaware, Pennsylvania and New York, control the Delaware.

Now, if we can get all of that straightened out, if we can find out where the money is going to come from to build what - first of all, a compensating reservoir from which, as Mr. Shanklin testified here this morning very little of it probably would be available for water supply, and then another one when you are assured of enough water to maintain the minimum flow, because remember, sir, if you don't keep that minimum flow of fresh water in the Delaware, you are ruining south Jersey, you are ruining all the water supply along the Delaware River south of Palmyra, probably, by the intrusion of salt water. So you have got to keep a constant fresh water flow,adequate flow, down the Delaware.

Now, I am honored that you know some of my grandchildren. I think they in the course of the next 15 or 20 years might probably marry and have children of their own. Those children might see something done on the Delaware.

SENATOR CRANE: Mr. Orchard, I appeal to your egotism, sir, and your self-assurance. Are you what might rationally be referred to as a water expert?

MR. ORCHARD: Well, I wouldn't say that. There are men in the room that know far more about some of the details of water than I, but if I don't know what I am talking about I shouldn't be where I am.

SENATOR CRANE: Thank you.

SENATOR DUMONT: Any further questions? Thank you very much, Mr. Orchard.

SENATOR CRANE: Mr. Chairman, we were furnished, as promised, the supplemental statement of the Somerset County Planning Board on Senate Bills 272 and 273 and it was made in accordance with a request on our part at the public hearing on Thursday, June 6th. It sets forth three specific amendments they would like to see and I think , since it is going to be incorporated in the record, that it is not necessary at this time to read them out loud unless Senator O'Mara requests it.

SENATOR O'MARA: No. I would like to have a copy of it, however.

SENATOR CRANE: Sir, there is only one copy. I'm sorry.

SENATOR O'MARA: Well, then would you read it into the record or I will if you wish me to.

SENATOR CRANE: No, it's all right, sir. I'll do it.

(Reading) "Paragraph 2 (F) of S-272 and S-273" - I believe that would be in the preamble of both acts then - "Amend this section to set forth more precisely the basic and primary rights of areas within the watershed; i.e., the Raritan River basin is the only area where large quantities of additional water can be obtained immediately and economically to serve metropolitan counties. This basin is about equal in size to the Passaic River basin, is wholly within the State, and is virtually undeveloped for water supply."

Their second suggestion for Senate Bill #273: "Paragraph 6 (B), Lines 17 and 18. Delete 'on or before January 1 in each year.' Requiring property owners to file a request annually seems to be an unwarranted and unreasonable requirement."

Their third suggestion for Senate Bill #273: "Paragraph 15. The Department should be given the authority to grant, on petition by a County, the right to develop the recreation aspects of such reservoir or reservoirs to the county wherein such reservoir is located as a county recreation facility."

"Note: The third point in this statement was unanimously endorsed by the Somerset County Park Commission at a meeting held on Wednesday, June 12th."

That is the end of their statement.

EX SENATOR O'MARA: Thank you.

SENATOR DUMONT: Mr. Robert W. Kean, Jr. of the Elizabethtown Water Company and the Plainfield-

Union Water Company. Mr. Kean.

ROBERT W. KEAN, JR.: My name is Robert W. Kean, Jr. and I am President of the Elizabethtown Water Company.

The Elizabethtown Water Company has in the past consistently opposed New Jersey State water projects as being extravagent, wasteful and unrealistic in conception. It is a real pleasure, therefore, to appear here today in support of a plan which we believe to be sound, workable and economical.

Some of the reasons for this change in thinking may be of interest to the Committee:

Number one, under this proposal New Jersey is not entering into the business of pumping, purifying and delivering water directly to consumers; it is merely restoring the Raritan from a flash flood stream of little value towards the desirable even-flowing river that it must have been before our civilization overtook it.

Number two, In recent years the multiplying water supply needs of widely separated areas, as well as flood control and compensating flow requirements, have added strength to arguments that the Raritan should be developed as a multi-purpose project by some agency that can represent all interests concerned.

Number three, the pattern of rate-making pursued at the present time by regulatory authorities in New Jersey inhibits water companies from developing new supplies far enough ahead of growing needs to serve in the public interest.

And, number four, and most important, because of our continuous concern with the Raritan ever since receiving our first grant of its waters in 1918, we are in a position to recognize and support a project for its development which promises financial and engineering economies. These economies are striking. This plan will yield water at about one-third the cost of other proposals, we estimate. Furthermore, it can be constructed in stages as needed, thereby relieving taxpayers of burdensome carrying charges on over-capacity.

I speak, therefore, on behalf of water users in Middlesex, Somerset and Union Counties, including approximately 350,000 served by Elizabethtown and Plainfield-Union Water Companies directly and another 250,000 in areas to which we sell wholesale water. These are fast growing areas. Their water sources are limited. They would benefit greatly by the Raritan plan advocated by the New Jersey Water Resources Advisory Committee.

But, before closing, I would like to point out what seems to be one inequality inallocation of

costs and of water in the first stages of the plan, Spruce Run, as shown on page 18 of the Report.

The second diagram from the top, on page 18, although the present low flow of the river, 65 million gallons daily, is to be increased by 85 m.g.d. to bring it up to a total of 150, of this 85 m.g.d. increase only 40 is to be allocated to consumers of potable water. Since the consumers are apparently to pay for the entire project, in effect they will be paying in this case for more than twice the amount of water they will be receiving. There are several ways in which the consumer could be protected from this situation: Number one, the water allocation to potable or salable uses could be increased from the 40 m.g.d. to a larger percentage of the 85; number two, the increased minimum flow, as provided, could be contributed to by those benefited on the river; number three, a clause could be written into the legislation to the effect that the charges for water should as much as possible reflect the actual cost applicable to the amount of water being sold.

I respectfully request that the Legislative Committee consider such changes.

In conclusion, I should like to emphasize just two points on behalf of the more than half a million people for whose water requirements we feel responsible.

Number one, the need for development of the Raritan resources is very real.

Number two, the proposal here considered will yield far more water at far less cost than any other approach to the Raritan development.

Thank you.

SENATOR DUMONT: Mr. Kean, about two years ago you appeared before a legislative committee in reference to a plan which was then being publicized by the Elizabethtown Water Company to develop, as I recollect it, as many as possibly six small dams and reservoirs on the Raritan River and the north and south branches thereof. Now, what has become of that plan on the part of your company?

MR. KEAN: Well, that plan, of course, was similar in approach to this one. It conceived of dams on the river which would increase its flow at a given point by using all of the various branches and tributaries. That plan was conceived in order to provide the water needed for our company and for our consumers. In this case, in supporting this plan because of the four reasons I mentioned we are in effect yielding to a multi-purpose plan which effects the same thing as our plan but of much wider scope. In other words, it makes water available not only to out consumers but to other water suppliers, municipalities, conservation, agriculture, compensating

flow, etc.

SENATOR DUMONT: Well, your plan, as I recall it, also would have been financed with private capital without involving the State in the water business. Is that correct?

MR. KEAN: That's correct.

SENATOR DUMONT: Now, you intend - from the testimony we have had here so far, I take it your company would want to contract for some of the supply that would be provided by these two dams and reservoirs included in this plan. Is that correct?

MR. KEAN: Yes, we would hope to get approval from the Division of Water Policy and Supplies.

SENATOR DUMONT: How much would you apply for?

MR. KEAN: That depends on a number of factors, such as the rate, the period at which this reservoir would be completed, and of course the growth trend in our territory at that time. In our own plan we were thinking in terms of working toward a 30 million gallons daily yield that could be used for our consumers. Presumably we would work toward that same figure here although our initial contract would not, of course, be that high and it might not be until the second stage of this project that we got up to the 30.

SENATOR DUMONT: Now, as I recall, I think you told us at that time that your company had not

acquired any or at least not very many of the prospective sites you had in mind for dams and reservoirs. Is that right?

MR. KEAN: That's correct.

SENATOR DUMONT: Have you since acquired any of those?

MR. KEAN: No, we have not.

SENATOR DUMONT: And that plan that you proposed then was actually an alternative to the Chimney Rock proposition, for one thing, was it not?

MR. KEAN: Yes. It was an attempt to point out that on-stream dams on the river, on-river dams was the proper and economical way to develop the river; that we could do it ourselves; and, as since proven, that it could be done by a higher agency for wider benefits.

SENATOR DUMONT: Do you lose much of that available water supply created by such a series of dams and reservoirs -- do you lose much of it by evaporation?

MR. KEAN: I'm not an engineer but the evaporation factor is approximately equivalent to the amount of rainfall that falls directly on the reservoir. It's a negligible factor and has been taken into account in this plan.

SENATOR DUMONT: Thank you. Senator Crane.

SENATOR CRANE: Mr. Kean, do you have an application now before the Water Policy Commission for canal water?

MR. KEAN: Yes, we do.

SENATOR CRANE: How much is that?

MR. KEAN: That's for 20 million gallons daily.

SENATOR CRANE: This is a leading question - Do you think you will get it?

MR. KEAN: It is strictly a matter of conjecture, of course, but if you think the answer is important-- I don't think we will get the entire grant, I think we will probably get part of it. We have had a great deal of opposition. The amount of available water left in the canal for allocation is limited. There are now more applications pending before the Water Policy Council than there is water to fulfill those needs.

SENATOR CRANE: If you do not get the water, sir, from the canal, will you have to get it elsewhere to meet the demand?

MR. KEAN: Yes, if demands are to be met.

SENATOR CRANE: Now, you mentioned working up toward 30 million gallons a day as a potential customer of this development or at least 30 million gallons per day for your future development. That wasn't quite clear to me. And you said among other things that it was dependent upon price. Is the price which has been quoted here for raw water, give or take a few dollars, $25.00 I believe has been stated as a guide, would

that be an acceptable price?

MR. KEAN: Yes, that is an acceptable price, commercially feasible.

SENATOR CRANE: Would you say that this plan is mostly for industrial benefit - and I mean by industry then those who draw water perhaps without paying for it.

MR. KEAN: No, not at all. I think our relatively half a million individual residents that I referred to are good testimony in that direction. The counties which would be served by us, of course, are fairly heavy in industry and we would expect industry as well as residential use would derive great benefits from this program.

SENATOR CRANE: You have said one thing here regarding diversion for potable purposes - that it could be more. You are aware, I believe, that in the T.A.M.S. Report and again in the Water Advisory Committee's Report both seem to specify necessary water in the bed of the stream to help abate pollution. Do you believe or have you any studies that would confirm that more could be diverted than is stated in both those reports?

MR. KEAN: Well, I recognize the desirability of minimum letdowns in compensating water and added streamflow. I think the very large item quoted in T.A.M.S. - I think it was a minimum of 130 million gallons daily - is a perfectly rational and desirable

end result to aim at but I think it is unfair to consumers to take such a high percentage of the initial stage of this project which is going to be by far the cheapest stage of this project and allocate that to downstream flow. As a rule of thumb we like to use 30 percent as a very adequate compensating flow measurement - in other words, if this 135 million gallons daily which is to be added to the present low flows were divided into what can be sold and what should be added to the river, we might say 90 should be sold, total, and 45 added to the river. Now, I think that same percentage, which is not too far off from what we have here,should be applied on your first project to be constructed, whether it is Spruce Run or Stony Brook. In other words, the very first stage, for some reason, here they have added only 40 m.g.d., less than 50 percent of the new water to potable. That's your cheapest project. Then they have gone on and in the second project they've added only 10 to the river and 40 to potable. It's not equitable and I think it should be looked at.

SENATOR CRANE: One last question. You appear, from your statement, to be one who needs water. Can you await large scale developments, say ten years hence, and can you get water from present resources during that time to suffice your needs?

MR. KEAN: First of all, I don't know of any large scale project, other than the Raritan, that could be completed within ten years. But in answer to your

question - no. The Raritan is the source that this area is going to have to use for water supply. It needs it badly.

SENATOR DUMONT: Any question of Mr. Kean.

EX SENATOR O'MARA: May I ask a few?

SENATOR DUMONT: Senator O'Mara.

EX SENATOR O'MARA: Mr. Kean, to clarify this matter - do you indicate that your company is a potential customer to the extent of 30 million gallons per day?

MR. KEAN: While I am talking reasonable future, I think potentially, if those areas build up to saturation point in industry and residents, it could go a great deal higher than that.

EX SENATOR O'MARA: All right. Let's take the 30 million gallon figure, do you mean by that 30 million gallons total, or 30 million gallons additional to your present withdrawal?

MR. KEAN: Additional, sir.

EX SENATOR O'MARA: What do you presently withdraw from the stream under the 1918 grant?

MR. KEAN: We have in that area grants of 20 million gallons daily from the river and 22½ from the Delaware and Raritan Canal, a total of 42½ from sources in that area.

EX SENATOR O'MARA: From both the river and the canal.

MR. KEAN: That's right.

EX SENATOR O'MARA: So when you talk about 30 million gallons daily you mean 30 million gallons in addition to your present supply.

MR. KEAN: That's correct.

EX SENATOR O'MARA: Now I am interested in the reason that your company did not pursue the plan which you laid before the legislative committee in 1955 for the construction of your own dams and reservoir on-stream to safeguard your own future development. Why was that plan abandoned?

MR. KEAN: Well, for one thing, we were still undergoing a good deal of engineering on it at that point, the actual need wasn't there yet, and it was about that time that we started to become aware of these many other interests in Raritan Valley water, and many feelings that a multi-purpose project should be considered before we went ahead and developed part of the river to our own uses in such a way that it would no longer be possible to fit it into a plan such as this.

EX SENATOR O'MARA: You at sometime, perhaps shortly after your testimony in 1955, got the idea that maybe the State would do it for you, isn't that so?

MR. KEAN: Those are your words, sir, not mine.

EX SENATOR O'MARA: Well I am asking you if that is so or not.

MR. KEAN: I think I have expressed what lies behind our thinking on it.

EX SENATOR O'MARA: Do you disagree with my interpretation of it?

MR. KEAN: Yes, very much.

EX SENATOR O'MARA: All right. How do you interpret clause 6 of that grant of 1918? Were you here this morning when I read that?

MR. KEAN: You better read it again, will you?

EX SENATOR O'MARA: I will. "The Board hereby expressly reserves the right, in case it shall be necessary in the future, to provide storage of storm waters along the Raritan and Millstone Rivers or their tributaries, for the purpose of supplying municipalities or water companies that may lawfully take water from the said rivers or their tributaries, to apportion the expense of providing the necessary storage among the petitioners and such other companies or municipalities as may at the time have a right to take water from said rivers, their tributaries, or either of them, for public or domestic use as may be equitable."

MR. KEAN: Yes, we are familiar with that and, of course, we have had that in there since 1918, the date of the grant. The feeling was at the time that, whether due to the Raritan becoming even more of a flash flood stream and having even lower minimum

flows in the summer or whether due to further agricultural uses upstream, there might come a time when in order to give that yield of 20 million gallons daily which we had as a grant from the State, storage would have to be constructed upstream. The State did not want to be in a position where we had a firm grant of water from it and they could be forced to provide storage at their own expense so that we could continue to take our grant.

EX SENATOR O'MARA: That's all. Thank you.

SENATOR DUMONT: Mr. Hauck.

MR. HAUCK: Mr. Kean, you stated that there would be a great saving in the purchase of water if this plan goes through at $25 a million gallons. Has your company made any plans in the event you get this water at a cheap price to apply to the Board of Public Utilities for lowering of rates and giving the benefit to your consumer customers?

MR. KEAN: First of all, you have used the word "cheap" price. We don't consider this a cheap price at all. We consider this a price that is far below a price that could be yielded by any other method of development of the Raritan. We think the prices would be about three times as much.

MR. HAUCK: Well how much do you pay now for water from other sources? compared to the $25 a million gallon.

MR. KEAN: Well that varies all over the lot. We are paying less than that, I think, in all cases. We take water out of the ground in wells and of course we don't pay anything for that. We have our grant from the river dating from 1918, we don't pay for that except for the tax that's referred to. We have water which we take from the canal under various contracts at various prices throughout the years. I don't think any of them get to as high a price as this $25. I think you missed one point - the cost of water ultimately to the consumer. The greater part of that cost is involved in overhead on the many, many pipelines, pumping installations, filtration equipment, and so on, that it takes to assure him a supply of potable water right in his home rather than the source itself. That has been true up to now at least. Now whether it will be in the future, I don't know.

SENATOR DUMONT: Yes, Mr. Johnson?

MR. JOHNSON: Bob, is it true that your company once looked at the Stony Brook Reservoir site and then gave it up as uneconomical? or is it true that you looked at it at all and then gave it up as uneconomical for your own purposes?

MR. KEAN: The studies that we have made on the Raritan over very many years were entirely devoted to finding out in what way we would develop the Raritan, when and if we developed it. For that

reason we have never studied closely the Stony Brook site because it is too large for a development such as we could afford to finance and go into.

MR. JOHNSON: Well, my point was that at a meeting in Pennington last month, I believe Mr. Ritter told us that the President of Elizabethtown had given the Smith Committee, in confidence, an E-town plan and I believe inferred that many of the engineering facts for the Smith report came from that document. Could you explain that?

MR. KEAN: We have made no reference at all to the Stony Brook site because we have never studied it, but the basic reason why we have never studied it is because of its size in relation to our financial size and really the needs of our particular area by itself.

MR. JOHNSON: But on the other hand you did provide the Smith Committee with some kind of report.

MR. KEAN: I believe the Smith Committee sought information from many sources, yes, and depended very heavily on reports from all the sources it could get them.

SENATOR DUMONT: Mr. Kean, correct me if I am wrong, but I thought you said that in 1955 you didn't think there was a need. Now, did you mean in connection with your own company or the general picture or a need for the plan that you advanced and told us about in 1955?

MR. KEAN: Well unfortunately, and one of the points I brought up here as to why we are not as reluctant to support a state plan as we used to be, it is almost impossible financially for a private company to build your facilities that you are going to need 20 years from now - in other words, where the full capacity may not be taken up 20 years from now, such as would have been the case had we gone into our on-river plan. With that in mind, we did not discard the plan by any means but what we have done is held it is abeyance until such time as it would be absolutely necessary to go ahead with it and when we would be in a better position to finance it. Now when this first came up, I believe it was last fall that this committee was appointed, naturally from that time on we didn't throw in any plan of our own to upset the studies they were making.

SENATOR DUMONT: Well, if the plan of this committee were adopted, would you then abandon your plan?

MR. KEAN: If this plan were adopted, yes. This would preclude our plan since it would be developing the same watershed really on a larger scale than we would do it. Your storage would be larger, your letdown that would be included or created would be larger, and we would, in effect, become partners in this plan rather than going along on our own with our smaller plan.

SENATOR DUMONT: You believe that there is a need today for this plan, is that correct?

MR. KEAN: We do, yes.

SENATOR DUMONT: And yet you do not believe that there is a need for your own plan?

MR. KEAN: Well, I didn't say that, I don't believe. We have gone so far as to inform the Water Policy Council, I think it was about a year ago, that within the relatively near future we would file application for dam sites on the Raritan and start our plan. Now before we got to that point, these canal hearings we were engaged in had so much opposition that they dragged on for about six months and it seemed inadvisable to file this plan at the same time that those hearings were in effect. Now before we concluded those hearings this whole thing came up. In other words, the first stage in starting a plan, were we to do it, would have to be to get permission, diversion rights, from the Water Policy and Supply Council by having lengthy hearings before them. That step we were prepared to make sometime toward the end of last year. The canal hearings made us postpone it and then, of course, this report has come on and has held our interest since.

SENATOR DUMONT: We sometimes hear the complaint made - and I don't know whether there is any foundation for it or not, I would like to get your opinion on this - that industrial users of water - this same complaint might be made of individuals - that industrial users of water do not conserve that water by using it over and over again within an industry before returning it to the source from which it came. Is that

a true criticism or not?

MR. KEAN: I think there is some of that. In our territory we try to control, for example, cooling uses. We tell people that we will not serve them unless they recirculate their cooling water if their cooling equipment is over a certain tonnage. I think that helps a great deal in conserving water. We also are fully metered so that each customer is paying for his water in direct proportion to the amount of water that he takes. This we find is a very effective conservation measure in that in some cases it is actually cheaper for them to reuse water and reclaim it and that eliminates wastage.

SENATOR DUMONT: Mr. Crook.

MR. CROOK: Mr. Kean, is it not true that your chief engineer has in his files, in his records, a preliminary plan for a dam on the Stony Brook not at the location of this existing proposed reservoir on the Stony Brook but considerably upstream from that, slightly below Route 518, I believe. It would be maybe a third or less capacity of this proposed reservoir. Is that true?

MR. KEAN: I don't remember there being one on Stony Brook. You are perfectly at liberty to ask him, of course. He's here. The only comment I have to make is if there is such a site, of course it is a very much smaller one than this.

MR. CROOK: I wonder if we could ask that question of the engineer and at the same time ask how

feasible a site that is.

SENATOR DUMONT: Well, first, is the engineer here?

MR. KEAN: Yes, Mr. Gerand is in the room, I believe.

SENATOR DUMONT: Is that question satisfactory to you, Mr. Kean?

MR. KEAN: Certainly.

MR. GERAND: Would you like an answer to that now.

SENATOR DUMONT: If you want to go ahead and answer it.

MR. GERAND: We did examine some 15 sites in the Raritan River Basin and among them was one site further up Stony Brook in the vicinity of Hopewell. It was a site that was too high up on the watershed for the purpose that we desired. It also had other disadvantages in that it involved a regulation and control of flows through Carnegie Lake. And for that reason it was abandoned very early in our studies and was not included in any of our final reports.

MR. CROOK: Would not then that second disadvantage, which you just mentioned, the regulation of flows to Carnegie Lake, still hold with the present suggested reservoir?

MR. GERAND: No, I do not think so. Keep in mind that the work that we did, as engineers of

Elizabethtown, was to develop a water supply for our customers and we were not concerned with industries, compensating flows, recreation, and the like, and as I understand it this site was picked for very definite purposes which it served. But we were not looking at it from that point of view. It has nothing in commmon or no conflict either with this plan that is now being proposed.

MR. CROOK: A further question to Mr. Kean, please. I understand that a few moments ago you said there is somewhere in the neighborhood of 44½ million gallons per day diversion by your company in the area of the Raritan Canal and the Raritan River. Is that correct?

MR. KEAN: Forty-two and a half.

MR. CROOK: Forty two and a half.

MR. KEAN: Correct, diversion rights.

MR. CROOK: What would be your expected need from a reservoir such as Spruce Run or Stony Brook within say a three year period, three years from this date. Do you have any idea?

MR. KEAN: I would hope we could get along without it for three years because, of course, it takes about that long to get it built and filled.

MR. CROOK: I mentioned the three years because I believe it was mentioned here last week that that might be the length of time that would be required to build the Spruce Run. At what time would you need

water from Spruce Run or from Stony Brook whichever one would be the first built?

MR. KEAN: I hate not to give direct answers but a lot of things depend on a number of factors. For example, Delaware and Raritan Canal. If we are able to get even emergency grants from that to tide us over we can probably last the three years, but certainly not much further. Now, at that time, when this first reservoir is put into operation, we wouldn't just contract for our needs of that year, naturally, we'd go at least five or ten years into the future. So that you might say that our needs at the time the reservoir was first put into shape - what we would contract for would be what we expected to need in view of our growth, the growth of the territory around us for five or ten years.

MR. CROOK: I see. Now, would it be a hardship on your company for a period of four years to elapse before Spruce Run or a similar reservoir was developed?

MR. KEAN: I don't have that much of a crystal ball, I'm afraid. I just can't answer that.

MR. CROOK: It's close.

MR. KEAN: It's close. It's a close picture. The water is needed. There is no question there.

MR. CROOK: We realize - the Stony Brook - Millstone Watershed Association realizes the critical

need for water. I am questioning you because we do not know fully the needs of the Elizabethtown Water Company one, two, three, four years hence, and it would help us a lot in the position we take and the things that we want to recommend as to what the needs will be three or four years from now. A year can make a big difference, as far as we can see.

MR. KEAN: I understand completely and it is just unfortunate that there are so many intangibles at this time and not enough finite factors on whose moving into what territory what year to be able to answer you.

MR. CROOK: That's all. Thank you.

MR. KEAN: Incidentally, in talking of needs and growth, we have been having the largest daily demands in our history these last few days and the month of April, which is the last one that we have complete engineering figures and output on, we ran an average of 8 million gallons each day ahead of a similar month last year

MR. JOHNSON: May I ask another question?

SENATOR DUMONT: Yes.

MR. JOHNSON: The T.A.M.S. Report says that if a public utility is allowed to develop their own present system there would be enough water to supply general foreseeable New Jersey demands until the year 1974. Would you care to comment on that?

MR. KEAN: I think there is something taken out of context here because T.A.M.S. recommended

A very large and all-embracing program to produce more water as soon as possible. Could you read that again?

MR. JOHNSON: Well, this is my own idea. The one thing that might be left out is that if utilities are allowed to exchange between each other or will exchange. They are allowed to but, say, will Elizabethtown allow, say, Newark to buy their water. They will, will they not? Then there is nothing taken out of context.

MR. KEAN: Well, am I phrasing your question correctly that you are asking whether, if each utility develops its own sources and interchanges as much as possible, there will be enough water to go around without any such project as this?

MR. JOHNSON: That is the fact from the T.A.M.S. Report. My question is, do you realize that? from the T.A.M.S. Report.

MR. KEAN: I don't believe it's a fact from the T.A.M.S. Report.

MR. JOHNSON: If I had a T.A.M.S. Report I would be quite willing to read it to you.

SENATOR DUMONT: Well, in the meantime, - there are some around here if you want to try to locate it - we'll have to move on.

Is there anything else of Mr. Kane?

Senator Crane.

SENATOR CRANE: Mr. Kean, just three questions, sir. If I understood your thinking, economics restricted your consideration as to the larger dams and reservoirs recommended by T.A.M.S., that is why you thought in terms of small reservoirs, is that right?

MR. KEAN: Correct.

SENATOR CRANE: You then felt selfishly that you could not take care of the needs of others from these small dams. Is that right?

MR. KEAN: Yes. Our small dam proposal was entirely for the needs of our own customers.

SENATOR CRANE: Well, that leads me to my last question, sir. If you constructed your small dam program it would prevent the State from making full utilization of the Raritan Basin development at a later date if it was needed. Right?

MR. KEAN: That's true. In other words, if this proposal is to go through we definitely should hold off. We definitely should hold off until we find out whether or not this is going to go through, because our proposal, if it was accepted and we started to build, would interfere with this one.

SENATOR DUMONT: Thank you very much, Mr. Kean. That's all.

Mr. A. J. Greco, Palmyra, New Jersey.

A. J. GRECO: As the President of several private water companies operating in northern New Jersey I have requested, and greatly appreciate, the opportunity of speaking before this Committee in support of Senate Bills 272 and 273. These privately-owned water companies are deeply interested in the water resources problems in this area. Although the requirements of our companies are adequately taken care of for the immediate future, we are naturally interested in any long-range plans which will provide an additional water supply. We have reviewed the First Report of the New Jersey Water Resources Advisory Committee and the legislation that has been offered by Senator Crane to implement the recommendations set forth in that report. The plans appear to be sound and we are happy to express our support of those plans before this Committee.

In reviewing Senate Bills 272 and 273 we feel that there is need of some clarification in the legislation to properly implement the basic purpose of the Committee which is to provide additional water supplies for public as well as industrial and municipal uses. In my review of these bills I have been influenced to some extent by Guiding Principle No. 6 of the Advisory Committee which states in part "* * any plan should be designed to enhance rather than jeopardize the activities and programs of existing water companies and commissions." To carry out this principle it seems advisable to us to suggest amendment of Section 6 (a) of Senate Bill 273 so as

to clearly set forth the right of purchasers of the additional water to resell such water to other persons, corporations, municipalities and commissions for resale to consumers. Under the proposed plan, the Department of Conservation and Economic Development will make available additional raw water in the Raritan River and it seems entirely possible that a purchaser of such additional water from the Department may want to install facilities adequate to satisfy its own needs and, in addition, may be able to resell water to another utility at a point some distance from the Raritan. To authorize such a plan would appear to be advisable for all interested parties as it would avoid the necessity of duplicating pumping, treatment and transmission facilities. So that such an arrangement may be carried out within the scope of the proposed legislation, we feel that some clarification is necessary and would like to request the opportunity of drafting and submitting to this Committee an appropriate amendment. In such proposed amendment we would provide that the proposed second purchaser would make application to the Department for approval of its portion of the needed diversion and that the resale would be limited to existing service and franchise territories.

Thank you.

SENATOR CRANE: Mr. Greco, I just consulted the Chairman and it is perfectly all right for you to submit any suggested amendment, sir, with the understanding that it is not imperative that we incorporate it in the bill but we will take it under consideration.

MR. GRECO: I realize that, sir. Thank you.

SENATOR CRANE: Mr. Greco, would you kindly tell us what water companies you represent so that we might have an idea as to your territory?

MR. GRECO: In northern New Jersey I am associated with the Washington Water Company, the Junction Water Company which furnishes water services to the Hampton Borough area, the Commonwealth Water Company, the New Jersey Water Service Company, Monmouth Consolidated Water Company, Jamesburg Water Company, and Lakewood Water Company. I believe you can consider every one of those in the northern New Jersey Area. Oh, I missed one and that is the Bernards Water Company at Bernardsville.

SENATOR CRANE: That's an impressive list, sir. Are the needs of those companies growing?

MR. GRECO: Oh, yes. They are all growing and we have recently, in most of the companies, received additional diversion rights from the Division of Water Policy and Supply. However those needs in some cases may only trend into another five or ten year period at which time we must consider additional sources of supply.

SENATOR CRANE: Would you be a potential customer for this development?

MR. GRECO: We could very well be and one of the reasons the suggestion was made that an amendment be made to the bill is that we find it more economical to cooperate or negotiate with an existing water department rather than build the treatment facilities, pump stations and pipelines, and if we did receive a grant which we may request if this project were constructed we, I believe, would try to negotiate with an existing water department.

SENATOR CRANE: What are your present needs for water? What is your total water supply now?

MR. GRECO: Well the largest company of the group that I mentioned is the Commonwealth Water Company. At Commonwealth we have diversion rights now to a total amount of approximately 31 million.

SENATOR CRANE: Diversion rights from where, sir?

MR. GRECO: Those diversion rights, 16 million are from surface supplies and the remainder from well supplies. They are scattered throughout the territory, and the territory we supply is from Irvington southwest to as far as the Passaic River at Passaic Township. And we have well fields throughout that area and we use the Passaic River as a well supply.

SENATOR CRANE: Could you estimate in million gallons per day, m.g.d., what your future supply needs might be say in ten years from now that would make you a customer for this facility?

MR. GRECO: At Commonwealth Water Company I estimate we have sufficient supply for about a ten year period. However, sometime before the ten year period is up it will be necessary for us to plan for a future supply, and that future supply, based on the present rate of growth,will be on an average of slightly over a million gallons per day.

SENATOR CRANE: While you are connected with these various companies, sir, are you in any statewide association or regional association of water companies, I mean as a member, of course, not an owner, or director.

MR. GRECO: A member of any association?

SENATOR CRANE: Yes.

MR. GRECO: Yes, I am a member of the Water Supply Committee of the State Chamber of Commerce. I am a member of the American Waterworks Association, the South Jersey Superintendents Association, who are all interested in water supply problems.

SENATOR CRANE: Well, from those associations would you care to comment on the needs for water? I mean, would they sustain the needs for this Raritan project?

MR. GRECO: I don't think there is any question that all waterworks people in this State of New Jersey are conscious of the water supply problem. It is definitely required and I feel that the estimates of the T.A.M.S Report and also of this Advisory Committee to the extent that the northeastern area of New Jersey will require between 8 and 11 million gallons daily additional

annually, is reasonable and fair. I know of no waterworks man in the State of New Jersey who belongs to any association who does not agree that additional water supplies are very necessary and important.

SENATOR CRANE: My last question then, sir: Have you or your companies ever constructed dams and reservoirs of this nature, created your own diversion resources?

MR. GRECO: We have. At the present time at Commonwealth Water Company we are constructing what is called an off-river reservoir. It's a diversion type reservoir, adjacent to the Passaic River, in a capacity of 1 billion 650 million gallons of water. We hope to have that project in service by November or December of this year.

SENATOR CRANE: Sir, may I ask you then, as a comment upon the surveys known to have been made on the Raritan River Basin of whatever nature, do you feel they compare to the surveys that were made initially to establish a site for your reservoir or did you make a much more intensive investigation and require many more facts before you actually just thought of this site as feasible?

MR. GRECO: We have studied several sites throughout the Raritan River Basin and also the Passaic River Basin. We have no municipalities which we furnish that are actually in the Raritan River Basin with

exception of Bernardsville which is caught in the Passaic River Basin and the Raritan. It happens to be the divide.

SENATOR CRANE: Pardon me, sir. I think you misunderstood my question. What I am trying to establish is if you made any surveys to establish this site, just the selection of it, that were any more comprehensive than the T.A.M.S. Report, and I should typify it as a reworking of it by Whitman, Requardt & Associates.

MR. GRECO: Are you speaking of these two sites under Bills 272 and 273, Senator?

SENATOR CRANE: I am trying to develop this, sir; that as a result of the T.A.M.S. survey and then again the thoroughgoing job of research at a later date by Whitman, Requardt with respect to the T.A.M.S. Report two sites have been recommended. You have evidently selected a site and begun construction. Did you before you determined on your site, this is apart from the engineering survey which was made when you entered final construction, but when you selected the site had you made any more comprehensive surveys than the T.A.M.S. Report or the Water Resources Advisory Committee Report?

MR. GRECO: No, we hadn't, but our reservoir site was in the planning stage before the T.A.M.S. Report was released.

SENATOR CRANE: This is not related to the T.A.M.S. Report, sir. I am just trying to find the engineering that was used to help you determine upon

the site. It was no more developed than the T.A.M.S. or the Water Resources as a routine measure.

MR. GRECO: Oh, I see. That is correct. About the same degree, sir.

SENATOR CRANE: Thank you.

EX SENATOR O'MARA: Just one question, if I may?

SENATOR DUMONT: Senator O'Mara.

EX SENATOR O'MARA: Mr. Greco, did I understand that of the six or seven water companies with which you are affiliated, none draws any water from the Raritan River except the Bernardsville Company and that draws some from the Raritan and some from the Passaic?

MR. GRECO: No. At the Bernardsville, we draw all from the Passaic.

EX SENATOR O'MARA: Oh, all from the Passaic.

MR. GRECO: Yes. We are on the divide there.

EX SENATOR O'MARA: Pardon?

MR. GRECO: We are at the divide of the Passaic and the Raritan Watershed.

EX SENATOR O'MARA: So then, is it true that none of your companies presently draw any water from the Raritan River?

MR. GRECO: That is correct, sir.

EX SENATOR O'MARA: That's all.

SENATOR DUMONT: Mr. Crooks.

MR. CROOKS: Following up that same point, you stated, I believe, that in a matter of ten years you will be needing an extra, roughly, million gallons per day for the Commonwealth Water Company.

MR. GRECO: That is correct, sir.

MR. CROOK: Are there any of the other 8 or 9 companies that you represent that will need water from the Raritan River in ten years?

MR. GRECO: It may be possible that we could use some of the Raritan River water at Bernardsville within the next ten years.

MR. CROOK: Some? A million gallons? or any stated amount?

MR. GRECO: Somewhere in that neighborhood.

MR. CROOK: Five years hence?

MR. GRECO: I would say closer to ten.

MR. CROOK: Thank you.

SENATOR DUMONT: Mr. Johnson, is this going to be the question you asked before?

MR. JOHNSON: Yes, it will. I will add another couple of sentences. I am not quite sure how much.

SENATOR DUMONT: Well, you asked that question of Mr. Kean before, not of Mr. Greco.

MR. JOHNSON: Well, can I just read this into the record? I think it might be worthwhile.

SENATOR DUMONT: Well, I think you should do that when you testify yourself rather than now because we are trying to limit this to questions at this time.

MR. JOHNSON: Quite right.

SENATOR DUMONT: Any other questions?

Mr. Greco, these other companies that you

represent, aside from Commonwealth, are they all going to be in need of additional water supplies in the near future?

MR. GRECO: Yes, I would say within the next ten years all of them will have to apply for additional diversion rights since additional supplies will be required.

SENATOR DUMONT: Have you any idea how much they will need?

MR. GRECO: Well I would say over-all that our requirements for the companies indicated - I believe I left one other out that may be interested in the Raritan River Water and that's the Monmouth Consolidated Water Company located at Long Branch, although it's quite some distance away - and I would say with that group of companies, after a ten year period, we may be interested in something in the neighborhood of 7 to 10 million gallons daily.

SENATOR DUMONT: That's all of them combined.

MR. GRECO: That would be the group, yes.

SENATOR DUMONT: Mr. Crook?

MR. CROOK: I have one further question. Are the companies, with which you are associated, associated with the North District Water Supply Commission?

MR. GRECO: None of them are associated with the North District Water Supply although at one of the companies we do purchase from the -- indirectly through the North Jersey District Supply. In other words, we use some of the Wanaque water at one of the companies.

MR. CROOK: I see. Then there are a number of municipalities and waterworks aside from the ones you represent that would be included in the needs estimated by the North Jersey Water Supply?

MR. GRECO: Well, I don't know what the estimated needs are at the present time for the North Jersey Water Supply.

MR. CROOK: The District Commission, I was talking about.

MR. GRECO: The North Jersey District?

MR. CROOK: Yes. There are other companies than yours that are customers of this District Commission.

MR. GRECO: Well, as I understand it, there are several purchasers of water from the New Jersey District Water Supply.

MR. CROOK: Thank you.

SENATOR DUMONT: I guess that's all. Thanks very much, Mr. Greco.

Do you have a question? Just a moment, Mr. Meredith has a question.

MR. MEREDITH: Can you tell us if your company has ever undertaken to finance, purchase land or begun construction, without an on-site engineering survey of the prospects of a reservoir?

MR. GRECO: I don't think I follow the question. Would you mind repeating that?

MR. MEREDITH: Has the Commonwealth Company or any of the others which you represent or are affiliated with ever undertaken the purchase of land or ever actually gone into the preliminary financing of a reservoir without actual physical engineering studies?

MR. GRECO: Yes, we have.

MR. MEREDITH: And what is the reason for it?

MR. GRECO: Well, generally we know the over-all picture on a reservoir site and we may make preliminary studies. Now, I believe that was your question. We do not make exhaustive studies. We may make a study on the geology of the ground in order to determine the advisability of this particular ground retaining water, in other words, whether it's imperviable or not. An over-all study is necessary as to the ground contours and so on but not detail plans. We can go in and purchase land before all of the detail plans are made up.

MR. MEREDITH: Senator, may I ask consequent upon that?

SENATOR DUMONT: Yes.

MR. MEREDITH: What type of geologic studies would you recommend be undertaken before you actually start; and secondly, to what degree of accuracy ought the contour maps be before you undertake the project?

MR. GRECO: Well, of course, now you are getting into engineering and I don't profess to be an engineer but what we do is take test borings

throughout the area, spot check the area with test borings and have that material examined so we can determine whether or not it is suitable for a reservoir site, and generally we accept the U.S.G.S. topographical maps as being fairly accurate. We may sometimes go as far as having an aerial survey made. But we feel that the topographical maps are reasonably accurate.

SENATOR DUMONT: Thank you very much, Mr. Greco.

MR. GRECO: Thank you.

SENATOR DUMONT: Senator Crane has some material to introduce in evidence and I think he wants to make an additional report.

SENATOR CRANE: Senator Dumont, ladies and gentlemen: This is a supplemental report to that which I made at the public hearing on June 6th. I identified myself then as a Senator in the present Legislature and sponsor of Senate Bills 272 and 273.

During the days since the first public hearing on these bills, on June 6th, 1957, I reviewed the testimony presented by both sides and I feel that certain additional facts should be presented for the sake of clarification. And, if you will remember, in my original statement I said that I deliberately tried to find other sources, aside from the Water Resources Advisory Committee Report, which would tend to substantiate the legislation and the reasons for its presentation.

While opposition appears largely confined to areas most likely to be inundated, and the natural sympathy of allied interests, still the fundamental criticisms of the Raritan on-river dam project cannot be taken lightly or otherwise dismissed without risking the condemnation of yet one more proposal to alleviate New Jersey's water problem.

Our negative record of the past quarter of a century, which gives little encouragement that our known future needs will be met, should inspire each of us to determine and establish the true facts before adamant attitudes are adopted.

On June 6th it was stated by Mr. Herbert W. Voorhees, President of the New Jersey Farm Bureau, that it was apparent that I, the sponsor of this legislation, was not sure that the plan forwarded by the New Jersey Water Resources Advisory Committee was the answer to our water problem for the brief statement attached to the bill did not constitute an endorsement. Please let me set the record straight. I have long been an advocate of on-river dams and acquainted with the merit of their application in the Raritan Watershed. I am convinced this proposal is consistent with recommendations forwarded by responsible authorities since 1929. I am further convinced that the plan is workable, economically sound and strategically important to future developments.

I believe it can be implemented with a degree of justice to all concerned, those who will be benefited and those who will be inevitably displaced.

Amendments are needed to tailor it to specific proportions, of course, and I have suggested more than a few. But I am for the basic concept of these bills. Let there be no mistake.

I would not be truthful if I stated that the criticisms forwarded in this forum did not affect me. I am greatly concerned by the allegations of special interests, fluctuating costs, inadequate engineering, precipitated introduction of legislation, among others.

First of all, as to these bills being precipitated, I would point out to you that these sites and, of course, the nature of the Water Resources Advisory Committee's Report has been knowledgeable since a conference with the Legislature on January 28th, and subsequent news articles on the subject which actually identified the Stony Brook and Spruce Run dam sites.

It is not a new plan. And to further point this out I would like to read into the record the times that the development of the Raritan has been discussed in official New Jersey documents as far back as 1929. It is not my purpose, Senator Dumont, to state each word in every document but to at least point out that the Raritan was discussed, and give perhaps a significant paragraph from it.

First of all, Number 1: The State Water Policy Commission's Special Report No. 1, Water Supply Problems of the Northern Metropolitan District - Activities of the Commission - July 1 to December 31, 1929. A significant paragraph therein reads: "Choice of the next development is thus narrowed down to the nearby watersheds to the west, including the Musconetcong, the north and south branches of the Raritan, and portions of the Rockaway Watershed if deemed advisable, which are capable of development to the extent of from 140 million gallons a day to 200 million gallons a day by any and several methods. Such a development will meet the increase in demand in the district for a period of at least 15 years after completion. Later developments of the branches of the Delaware, located further to the west and north, and of the Delaware itself will furnish very large supplies for future generations."

Number 2: State Water Policy Commission's Special Report No. 3 - The South Branch Project - November, 1931. A thorough study of the Bunnvale Dam establishing a reservoir on the South Branch and the equally thorough study of the Chimney Rock Reservoir. This report forwards in detail the statistics as to turbidity, color, oxygen consumed, hardness, bacteria, bacteria coli, etc. on many of the tributaries in the Raritan Basin, pointing to the desirability of this source for purposes of a potable water supply.

And, by the way, two comments gleaned from this report which, by the way, was the thorough

engineering basis for public action on the question of Bunnvale and Chimney Rock.

I would like to say that the Bunnvale Dam would entrap waters in Long Valley and flood five populated centers, according to that report. They are Califon, Vernoy, Middle Valley, Long Valley, and Naughright, and would necessitate inundating 7200 acres of land or rather would necessitate acquisition of 7200 acres of land. Chimney Rock was discarded as having no watershed of consequence, and the fact that it would inundate Martinsville and Warrenville, and necessitating the acquirements of acreage in excess of 6,660 acres.

Number 3: The State of New Jersey's State Water Policy Commission's Report on the Development of Adequate Water Supplies for North and South Jersey - February 5 of 1945. Under the title, Recommendations as to a Water Policy, and with regard to "Implementing Legislation" paragraph 2 reads: "That the flood flows from the headwaters of the Raritan River, including the north and south branches, and the flood flows from the Musconetcong River be set aside and dedicated by appropriate legislative action for potable and public water supply use to be developed when and as needed."

Under another title in this same report - "Start of Work": "The flood waters of the north and south branches of the Raritan River should be allocated now to potable water development to prevent their

diversion to other use."

I submit, sir, that those reports, in addition to T.A.M.S. and in addition to the Water Resources Advisory Committee Report compiled by Whitman, Requardt & Associates, and Leggette, Brashears & Graham who also cooperated with T.A.M.S., proved beyond a doubt that this region has been surveyed back and forth at considerable expenditure of moneys and of time and that therefore this is not a new plan nor are we precipitate in now considering it.

As to special interests, I would like to say that I was stunned to hear, with respect to the list of those who participated in the Water Resources Advisory Committee Report - contained on page 9 of that report - that they could be considered self-serving. I do not believe that they can be considered self-serving any more than these people of Princeton can be, fighting so hard as they are for self-preservation. These people, on this Committee and who contributed to it, realize the necessity of some major activity within this State to take care of water resources before we grow so far and wide in populace and in commercial and industrial enterprise that we no longer have space for our storage facilities or in any way harnessing water.

Now, on this list, you can examine it yourself, I would say that there are very few who are riparian owners and could be benefited by this plan, and even

if they are, I am sure they are behind my proposal of a study to charge riparian owners for any water improvements.

Now, one other thing - and I would like to point out significantly that the Elizabeth Daily Journal which is listed thereon is my newspaper, which I own and operate. We do not consider that we are self-serving. Our participation in this plan and in this study was in the same manner as our participation in all other water studies, and we have furnished written material for the promotion of many plans advocated by this Legislature.

Now, we happen to be one of these companies that do have a water recapturing device for our cooling system, and I believe that we are helping out in our area to conserve water, but I would like to point out, sir, that this is a matter of drawing water from the ground. By drawing water from the ground we deplete a natural resource. These people who are riparian owners upon the Raritan banks are those who are using flows of the river. They take it out and put it back reasonably undiminished as to quantity and quality but they do not lower the flow of the river appreciably. They restore the water that they take. And it is not the same to take surface water runoff and redischarge it, as it is to take water from the ground, because it takes a great deal more time to percolate back down into the ground

for those who draw from wells.

Now, again there has been some misconception as to the cost. I believe it has been brought out that there was a misunderstanding as to the early remarks in the Water Resources Advisory Committee Report that led to it and that naturally people were misled in that conclusion. But it is true that the plan as proposed by the engineers costs $14 million, $9 million for the acquisition of both Stony Brook and Spruce Run and the building of the Spruce Run dam and reservoir, and sets aside for later expenditure $5 million for the building of Stony Brook under certain reservations as to time and consumption of water in the Spruce Run Reservoir.

This cost is based on the T.A.M.S. Report as I see it. The estimates have been upgraded by engineers and seemingly adequate provision and ample reserves for contingencies have been set aside to make it reasonable to assume that $14 million would be the cost if we proceed forthwith with this plan.

As to the project being self-liquidating, we have been challenged on the basis that too few consumers would be available in the beginning to make it financially feasible and, therefore, we might exhaust the list of the four provisions in the bond act and actually have to apply a tax in the State of New Jersey. I don't believe, sir, that in any well

recommended plan it has been necessary, in my knowledge, to thoroughly exhaust those standard provisions in our bonding act. And I would point out to you that paragraph 11 of Senate Bill No. 272 allows for the postponement of amortization for ten years and with reasonable expectancy as to the need for water in this area I believe that many factors working together will prove that it will not be necessary to go through the four provisions before equaling the costs and offsetting them.

Now there has been mention made that the Assembly was not invited to sit with us, and I think you, Senator Dumont, if my memory serves me, invited Assemblyman Gant and the Assembly Revision and Amendment of Laws Committee, and only the hectic schedule of the Legislature in its closing days prevented their cooperation with us. But, as we have evinced, anyone in the Legislature is welcome to sit with us and I personally have expressed to Assemblyman Stepacoff and Assemblyman Beadleston, who have knowledge of water problems, the desirability that they attend these hearings.

Now as to engineering being inadequate, I personally feel that the T.A.M.S. Report, Tippetts-Abbett-McCarthy-Stratton, adequately describes the two dam sites. Trying to substantiate that beyond mere hearsay, I called upon Mr. Gerald T. McCarthy of Tippetts-Abbett-McCarthy and Stratton, on Friday,

June 7th and the following advice was given me: Anyone wishing to check this out could readily check with Mr. McCarthy who, as Mr. Stratton the Chief of the firm said, was the one who had lived with this report.

No. 1 - The T.A.M.S. Survey established sound estimates as to costs and yields of reservoirs to which the engineers of the Water Resources Advisory Committee added sufficient consideration to bring the report abreast of present circumstance.

2 - After considerable geological inspection and reconnaissance by T.A.M.S. engineers there was no question as to the Raritan site being adequate in every respect, there was no question as to their being sufficiently tight and sufficient dam building materials available in each affected area.

3 - Engineering data on hand from the T.A.M.S. and Water Resources Advisory Committee Surveys is practical as a basis for construction programs. There is confidence that no geologic faults or other negative factors exist in the area. Further surveys would only be practical to the extent that they would lead to the actual construction refinement usually recommended in the pre-construction survey conducted after authorization of the project.

4 - Stony Brook particularly fits within the framework of any plan to develop the Raritan and should be one of the first built. With respect to the

creation of mud flats, four out of five years water level would be normal or down only a few feet in months of less than average rainfall. One out of ten years it would be down ten feet, and one in twenty years it might be lowered as much as 80 percent, but in those instances the availability of a water supply and the maintenance of flow on the stream bed, despite drought conditions, would more than offset any local discomfort.

No. 5 - Spruce Run will produce the best lake and one of the best recreational areas in the State.

No. 6 - Politically, any development of the Raritan will incur lakeland resistance because of the old superstition and mistaken notion that such use will lower the level of the northern lakes of the State.

No. 7 - In the best judgment of an engineer, the dam sites and sources recommended in the Water Resources Advisory Committee Report are "about as good as you can get".

No. 8 - And this is more or less with respect to policy, sir.-- Round Valley is too big just to store Raritan waters, thus going to the Delaware becomes a necessity for the most economic stage of its development. In view of the cost of mains and pumping facilities, it may be that it would be more economical for New Jersey to co-sponsor the Tocks Island project with its hugh capacity and forego Round Valley which would then become merely a duplicate and unnecessary large scale regulating device,

two not being necessary for intra-state needs and purposes.

Tocks Island is far superior to Wallpack Bend as a dam site for it would develop a reservoir double in size at but 20 percent additional cost and without flooding Port Jervis.

Such were the advices received from Mr. McCarthy and I would welcome anyone to check that information for me.

I would like to point out again that the ground water reports in both T.A.M.S. and the Water Resources Advisory Committee were supervised by Mr. Leggette of Leggette, Brashears and Graham, and yesterday we heard my colleague, Senator Waddington of Salem, refer to that organization as one of the foremost groundwater engineering firms in the country. So I believe that they are a competent engineering firm and would not recommend to the detriment of the public or mislead them.

Then, too, I have been so intrigued by the developments in the Delaware that I fail to see how we could ignore them in the development of any future policy, and I know that the Committee for Sound Water Policy here is interested in the same thing. And because we have brought up the question of how long before we could get water from the Delaware, I consulted with the Philadelphia

District Office of the United States Army Corps of Engineers, Colonel John C. H. Lee and Mr. Russell Morgan his civilian Chief, and I would like to say that these statements are entered as advice received and I would also welcome a check in this direction. These were advices received particularly from Mr. Russell Morgan with whom I believe you are acquainted, Senator Dumont, as the one who perhaps participated in that Pennsylvania-New Jersey conference we hear about so frequently.

No. 1 - At present the Corps of Engineers is conducting a survey of Delaware Valley water resources and the Tocks Island Dam is merely the subject of one preliminary report. Its consideration is not yet that of an "authorized project" and sufficient data has not yet been developed to recommend it as such to the federal government for construction grants and aids.

2. - A final report as to engineering and economic aspects of Tocks Island will not be ready much in advance of 1959.

3. - This survey is being conducted as a matter of determining future water sources and requirements in the New York-New Jersey-Pennsylvania and Delaware area for the next hundred years. It will eventually include evaluation of the Delaware-Raritan-Hudson and other feasible river water basins.

4. - State Senator Yosko of Pennsylvania has a copy of the engineer's preliminary report. Mr. Morgan believes Senator Dumont of New Jersey has knowledge of this report which forwards the premise that a dam can be built at Tocks Island creating a reservoir double the size of that predicted for Wallpack Bend at the 20 percent increase in cost. A rough independent engineering estimate confirms these findings and further points out that a better degree of control of river water could be achieved at this lower site.

As you know, Tocks Island is lower than Wallpack.

No. 5 - New Jersey and Pennsylvania will have to change existing legislation to shift the site from Wallpack Bend to Tocks Island.

No. 6 - According to U. S. Army engineering standards, an adequate survey for dam and reservoir purposes should include the obtaining of geologic data as to basin construction, hydrologic data as to both surface and ground water resources, engineering estimates of dam building materials available in the vicinity, estimates as to cost, as well as a survey of potential water needs of the area. The T.A.M.S. Report submitted to the New Jersey Legislative Committee particularly is considered excellent by every standard.

7. - For federal participation and approval authorized projects must have wide justification. If the needs for potable water supply in an area appear great, such participation is usually recommended to federal authorities. If a reservoir appears to have multiple purposes to include recreation, improvements to navigation, protection against further salt water intrusion, maintenance of flow and flood control, then it is possible that the federal government might make a substantial contribution. However, the engineers at this time have no breakdown of costs or benefits on which to base any recommendation and it is doubted if they will have much before 1959.

8. - The Federal Interstate Coordinating Committee made up of representatives of interested federal agencies, states and metropolitan districts, must further sift the data before final recommendations are made.

9. - At the most, federal government participation would be limited in yearly appropriations to ten million dollars or less, as conditions dictate.

10. - Engineering advice and consultation would establish that construction would be completed six to seven years after inception and since adequate surveys for construction purposes will not be available for two and a half more years, water from this source on the Delaware should not be scheduled in

any program short of 1966 or 1967.

Now, sir, I would like to comment on the need for water. I am not trying to be a prophet of doom but I fear that this year will be 1953 all over again. It has been pointed out - I was happy to hear somebody else bring it up, because we heard it yesterday from Senator Waddington - that we are averaging now 5 inches behind our average precipitation in this State. This morning, meteorological reports predict dire happenings if conditions persist for another ten days.

Elizabethtown and the Plainfield-Union Water Company had peak periods of use on Monday, June 10th, which was not a hot day but already their present allocations are beginning to be taxed.

Then, too, you only have to look at the local press and you will notice headlines "Water Emergencies Declared in County" "Three East Brunswick Areas Reported Dry." and they talk of instituting various restrictions such as lawn watering, car washing, and we are going through that period all over again.

I submit, sir, that as a matter of policy we can't wait the ten years for Delaware nor another period of years for Round Valley. I believe that the Raritan on-river dam program represents the first step of a sensible policy, a stop-gap provision if nothing else, and it will give us time to decide on other projects that will be greater, perhaps of

greater use to us, and I think that since they cost so much that they are not the type that should be decided in one year or two years.

Last week I pointed out that there was no lack of water but where population and industrial concentration exceeded local supply as well as the average per acre water resources, it forced us to turn elsewhere. This, as I also pointed out, leads to the aggravation of those who will be inundated and displaced, with its frightful political consequence. No one blames or criticizes the opponents for their opposition, but repetition of their claims has twice led the people of New Jersey to reject engineering surveys. With natural sympathy we turn our backs on expert advice. Yet we have arrived at a point where we dare not falter. We must recognize that with continued growth and expansion of the populace and commercial and industrial enterprise, our demand for water will force us to be realistic and, while searching more diligently for the truth, place the proponents and the opponents in their proper perspective. When that is done, I am sure this plan will receive the recognition it deserves. Consider it in this light: This, a referendum question, is an opportunity for the people to comment upon a plan that has been suggested, propounded and proposed since 1929. They are told by some experts that so

much could be reasonably expected for a certain expenditure. More than $167,000 has been expended in engineering studies. More will be expended if the people express themselves favorably to assure that the facts forwarded by these experts are true before any construction is authorized. This is a routine protest with ample precedent. It is inconceivable that it could operate to the detriment of the majority or proceed recklessly in the face of future findings recommending against the establishment of the dams and reservoirs. In this there is ample guarantee against haste and waste.

Now, Senator Dumont, I reluctantly appeal to your compassion. I do not desire to postpone the day of reckoning because I know that I must justify all these facts that I have submitted for the record and I have told you that I will be present to answer any questions. But, as you know, sir, both of us were here until 2:10 this morning and we went to bed a great deal later than our good friend, Senator O'Mara -

EX SENATOR O'MARA: How do you know?

SENATOR CRANE: I'm guessing, sir, as usual. -- and because I do not feel that I could do this plan justice and not to do it justice would be a disservice to those people whom I am attempting to serve, I would request that both you and Senator

O'Mara grant me the privilege of responding at a later moment.

SENATOR DUMONT: Well, Senator, I think that is a perfectly reasonable request, particularly in view of the fact that there are at least three witnesses for the opposition that we have to get on today, one of whom has made a newspaper statement and I don't want him or the newspapers not to be kept in the clear .

SENATOR CRANE: I understand this problem, sir.

SENATOR DUMONT: Fine. Now, aside from that there are just one or two things that you mentioned that I wanted to elaborate on a moment here.

I appreciated your mentioning the fact that the Assembly Committee was invited and saw fit not to participate in these hearings. That is right. As a matter of fact, on page 1 of the opening day's testimony it was practically the first remark I made here to the effect that I had talked to Assemblyman Charles Gant of Cumberland County, who is Chairman of the Assembly Committee on Revision and Amendment of Laws, the counterpart of this Committee, and he checked with his Committee Members and then came back and reported that inasmuch as these bills were in the Senate Committee and, therefore, within the jurisdiction of the Senate, they believed they

would let the Senate Committee conduct the hearings. But they were properly invited and, of course, the invitation goes to any member of the Senate or Assembly, regardless of whether they are on this Committee or the Assembly counterpart of this Committee, or any other committee.

In addition to that, one or two things that you mentioned there as the result of your research - Senator Joseph Yosko represents the District in Pennsylvania which is right directly across the Delaware River from where I live. I have had many opportunities to work closely with him, not only in water matters but also in bridge problems and in other problems concerning the Delaware River as it exists between the two states.

I talked to him only last Sunday about this bill which he and other Senators are sponsoring which has now passed, I think, the Pennsylvania Senate and which is awaiting action in their House of Representatives. There are copies of that bill available around here, although not too many of them. The bill, as I understand it, provides an alternative to Wallpack Bend and provides that a dam may be constructed on the Delaware River at either Wallpack Bend or Tocks Island. I think probably it leaves in the same things that the United States Supreme Court Decree of 1954 provided, to wit: that Pennsylvania would have the sole authority to

determine when, within the 50 years after the legislation was originally passed, the dam would be constructed - and that legislation specified, as does ours, Wallpack Bend only. Our legislation is Chapter 443, I think, of the Laws of 1953.

If this bill passes in Pennsylvania and is signed into law, it would require concurring action on the part of New Jersey to set up an alternative situation on the Delaware rather than just specify Wallpack Bend.

Senator Yosko also is Chairman of the Pennsylvania Legislative Committee, which we like to think we helped get them to create in 1955, after we made our visit to Harrisburg in March of that year.

That legislation that we have and Pennsylvania has, also, of course, repeals the old bi-state compact of 1783 which said there could be no dam constructed across the Delaware River, and by repealing that, of course, it permits a dam to be constructed.

The Assembly here yesterday, I think, passed a concurrent resolution which now comes to the Senate for action, requesting the Water Commission that was created under a resolution I sponsored in 1955, and which has been reconstituted every year since then, -- requesting that Commission to contact the Pennsylvania Legislative Commission, under Senator Yosko, for the purpose of investigating fully just

what this proposed bill, or the actual bill that is now passing the Pennsylvania Legislature, would accomplish. And I imagine our Commission, which is headed by Senator Lance of Hunterdon County, will probably do that in the near future.

Now, thank you very much, Senator Crane. Is there any other witness now that the proponents wish to put on at this time? This doesn't bar you from putting on witnesses later on or from rebutting, of course, whatever testimony is presented in the next day or two days, whichever it may be, by the opponents of this plan.

As I understand it now, we are ready to proceed with the case of the opposition. Is that right, Mr. Smith?

MR. SMITH: Yes, sir.

SENATOR DUMONT: Well then the first witness I would like to call for the opposition is Mr. Anthony M. Hauck, Jr., who represents the Town of Clinton, the Township of Union, - they are both in Hunterdon County - a Member of the Planning Board and the Board of Education of Union Township, and he is a former Assemblyman from Hunterdon County. Mr. Hauck.

ANTHONY M. HAUCK, JR.: Thank you, Senator.

Senator Dumont, Senator Crane, ladies and gentlemen: I think at the outset Senator Crane should certainly be congratulated for the wonderful presentment he is making of a bill that he is sponsoring. I don't recall anytime while I was in the Legislature that any Member of the Assembly took such a great interest in trying to get both sides of a very controversial argument.

As was said, I am representing the Town of Clinton, whose borderline is about a thousand feet from the site of the Spruce Run Dam; the Township of Union, in which the entire acreage of 2,000 acres will be taken; the Union Township Board of Education and the Union Township Planning Board.

We realize that the majority of the people should be satisfied over the minority when the needs of the greater number of people are a necessity. We know and believe that there is a great demand for water and water sources in the State of New Jersey, and that this will increase with the increase in population and the increase of industry. However, we are deathly opposed to the two bills in their present form. I suppose one of the greatest reasons, although this might seem like sentiment or perhaps selfishness, is that people who have built their homes, purchased their homes and farms, raised their

families and lived most of their lives in these homes, hate to have their roots and ties pulled up and be forced to go out and look for a substitute which is never the same.

Several other speakers from Hunterdon County have mentioned the fact that the State of New Jersey has appropriated or taken during the past years a great part of Hunterdon County. I would like at this time to read into the record an article written by our Senator, Honorable Wesley L. Lance, which was printed recently in the Hunterdon County Democrat:

"Land owned by the State of New Jersey pays no local real estate taxes. This means that Clinton Township's Tax Collector, Cora Mae Coss, does not receive one cent of tax from the State on the 747 acres of land which comprise the Boys Reformatory at Annandale, likewise no tax is paid on either the building or the personal property owned by the State at this institution. Clinton Township Collector is actually a collecting agency for four different units of government - one, the municipality, technically known as the Township of Clinton; two, the Clinton Township Board of Education; three, the North Hunterdon Regional High School District to the extent of Clinton Township's share of its bill; and four, the County of Hunterdon for Clinton Township's proportion of its burden of the cost of County government.

"Obviously, the State pays no tax on the Annandale Reformatory land and buildings to any of these four units of government. This exemption is the statute law of New Jersey and it has been that way from the very beginning. How much exempt tax land does the State own in Hunterdon? Before you read along, make your own guess as to the total acreage and see how close you can come home. I am familiar with 8 facilities - first, there are 210 acres at the Highfields Treatment Center in East Amwell Township on the Mercer line. Male juvenile offenders between 16 and 18 years of age are housed there. It is the former Lindbergh Estate where the kidnapping occurred.

"Second, there are 550 acres at the Sanatorium for Chest Diseases near Glen Gardner in Lebanon Township, which treats patients with tuberculosis and allied diseases.

"Third, the State owns 430 acres at Voorhees State Park between High Bridge and Califon. Most of the park is in Lebanon Township with some of it dribbling over into High Bridge Borough and Clinton Township.

"Fourth, the Kenneth Lockwood Gorge, which funnels the South Branch of the Raritan from Hoffmans to High Bridge. It contains 109 acres of State-owned property. The State purchased this facility in the Township of Lebanon and Clinton primarily for the use

of trout fishermen." This says: "That well-known hole in the ground which some have designated as the Round Valley Reservoir. The State is still buying land there. Clinton Township alone will have the distinction of losing some 3,800 acres from its tax role for this one.

"Six, let's move over to the neighboring municipality. There we find the public shooting grounds under the supervision of the State Fish and Game Department. Its 910 acres are mostly within Union Township with some in Bethlehem Township.

"Seven, still in Union Township is the Reformatory for Women, just outside of Clinton. There are 344 acres here. My box score now shows 6,353 acres of tax free State property. Now add the 747 acres of the Boys Reformatory, which I first discussed, and the answer seems to be a total 7,100 acres for the eight facilities.

"I am not considering land used and to be used for State highways including a relocated Route 22 as a freeway, for example, in this article. Such land also leaves the tax roles of the municipality. And now they tell us that we in Hunterdon should sit down and sing 'For We Are Jolly Good Fellows' everytime anybody mentions the word reservoir, and that we should feel honored to fork over a couple of thousand additional acres for another free-loader, this one to be designated as the Spruce Run Reservoir."

Do you perchance remember from your 7th grade arithmetic tables how many acres make a square mile? No figures have been given us at the present time as to the amount of acreage or what homes and farms are to be taken or the amount of assessed ratables we will lose, because the plan at this time is so indefinite. We have been told that approximately 2,000 acres will be taken from Union Township. This 2,000 acres contains one of the largest, finest and well-known farms in the east owned by Lloyd Wescott who raises purebred Guernsey cows, and many other farms and homes. Union Township is strictly a rural township, no industries, and is a faat growing residential township. People from Union, Hudson, Essex, Passaic and from the New York area are moving out there and are either commuting or making other types of permanent homes. The Township and the Union Township Board of Education are obligated for two large bond issues for school purposes, one in the amount of $65,000 and the other in the amount of $190,000.

We oppose the present form of the bill because it shows only a partial return of taxes. We feel that the State of New Jersey is going into the water business, and they are doing that primarily to help large industries and large water companies in other sections of the State. It is also our feeling that a provision should be inserted in the bill

charging the purchaser of the water out of the moneys collected by the State of New Jersey, that is, a certain percentage should be paid to the Township and the more water sold the more money paid into the Township.

I was dumbfounded when I heard this morning from Mr. Shanklin that the State of New Jersey or the Water Policy Commission had no record of the amount of water taken out of the main rivers of the State of New Jersey by large industrial companies from riparian rights. I would suggest that the Legislature immediately pass appropriate legislation giving the authority and right to the State Water Policy Commission to meter such water users, showing how much water is taken out of the rivers and how much water is going into the rivers, so at least the public knows where the water is going to.

I would also suggest that it be recommended to the Attorney General's office that some of their staff check over the said riparian rights to see if these users actually have riparian rights, and to see whether or not there is some way of limiting the amount of water that can be taken out of the river and used by a riparian right holder even though the water is supposed to go back into the river. And also to continue with the suggestion made to see whether or not those people cannot be charged some

money because of the fact that by using these reservoirs the flow of the water will be increased.

Although we believe in recreation, we feel that the reservoir cannot be appropriately used for recreational purposes mainly because of the fact that at dry times the surface of the reservoir would be greatly lowered and the banks would be lined with mud flats.

It has been admitted that,even though it may only be once in 30 or 40 years, the reservoir may almost be empty. In that event, if the reservoir is to be used for boating, where would the boats be? tied to a floating dock or in the middle of a pond? How would the people get out in the water? This may seem silly.

We have been informed this year that the Fish and Game Commission has inaugurated a policy whereby the Mulhocoway Creek, which is part of the Spruce Run System, will not be stocked with trout any year after June 1st because of the annual drought in that section. If this becomes a recreational area, who will use it? All the people from the State of New Jersey? Just the County of Hunterdon? Just the people from the northern section of the State? What will happen to the rights of the owners surrounding the lake? Will they have the right to use the lake? Will they be protected from an influx by the general public? Who will police the recreational facilities? Where will the money come from to police the recreational facilities?

We are against this plan because we feel that the reservoir in drought times will be a nuisance and a health menace because of the fact that due to the surface being lowered the lake will probably be a great breeder of mosquitoes.

We are opposed to the plan because it will mean a realignment of roads. We have been told here that these roads will be raised. And I would like, when I get through, to ask Mr. Ritter, again, a question on the roads of the Spruce Run Reservoir.

If you will turn to page 16 you will note that the main highway going through the proposed Spruce Run Reservoir is Route, I believe, 513. It is a macadam road. It is owned and operated by the Township of Union and by the Town of Clinton. And you will note at the extreme southern end of the proposed lake that a dyke is to be built. We wonder how the present end of the road, not being inundated, can connect up over a dyke - and I understand from good authority that this would mean an incline of from 6 to 80 feet and then said road would continue either raised up on concrete pillars or on some kind of a raised bank through the reservoir.

Who is going to pay for the realignment of the road? There will be increased maintenance because of increased use, because of the great drawing-cards of recreational facilities. Shouldn't the Township be paid for the extra expense of maintaining these roads

if they are to be used by sight-seers and people who want to take part in the recreation?

We also believe that a provision should be put in the act that the local municipalities surrounding the reservoir should have the right to purchase water with the usual approval of the Water Policy Commission.

Now, while we are on reservoirs, what has happened to Round Valley? I wish you people could go up and look at it. We were negotiating with the landowners within the past few months, and I might say that Sal Bontempo did an excellent job for the Department, and they told the people they had to be out by the first of August. Now we understand that Round Valley won't be used for ten years. What will happen? I suppose Hunterdon County will have a glorified hunting preserve. We suggest that the Legislature immediately pass appropriate legislation to allow water from the Raritan River to be taken from Hamden and put in a finished Round Valley Reservoir.

We understand from the testimony here that the Pennsylvania Legislature has recently enacted legislation somewhat similar to the New Jersey legislation passed in 1943 whereby the Delaware River water might now possibly be used either in Wallpack or Tocks Island. We believe that this plan should be started immediately so that we won't have another Hunterdon County reservoir a little bit higher up five or six years from now.

And what about the Chimney Rock plan? Is it possible that the Chimney Rock plan, that many people said was the plan because it was nearest to the Delaware Canal and nearest to the Raritan River, can still be used? Would the public, if it was properly presented to them, come back and accept the Chimney Rock plan or should we say would they rather accept the Spruce Run and Stony Brook with opposition - and I would again vote on the Chimney Rock plan?

We are very serious about the fact that in part of this land of the Spruce Run territory there are large areas of lime stone deposits and sink holes, and we feel if the State of New Jersey does not want to spend additional sums for engineering, for a complete engineering survey, which we say should be done, they should at least check up on this phase of it.

We feel that the Smith Report should not be taken as it is now and it is of such great importance that the State should first spend sufficient money to make a thorough engineering survey of all points so that the Department, the State of New Jersey, and the people would know whether or not these reservoirs are practical, whether or not the cost will be X million dollars or five times X million dollars. And, as I said before, when a man buys a house he checks first on how much the taxes are, how much the oil bill of the former owner was, how much the insurance is, where the schools are, whether

the house needs painting, and many, many items. Should the State of New Jersey take this report based on engineering reports that are not completely thorough? I believe Commissioner McLean said that more engineering surveys should be made. One of the last few speakers said, I think Mr. Greco, that certain borings would be made by his company, that the geological formation should be studied. Do we know how far the T.A.M.S. engineers in Mr. McCarthy's firm have gone in determining specifically whether or not these two sites are really acceptable to the State of New Jersey?

We feel that the State needs a water supply, and the water supply should be found quickly, but we feel that a thorough investigation should be made first, that proper remuneration should be given to the municipalities, and that the riparian owners should be made to join in with the expense.

I have a letter here that I would like to read from Mr. Heatherington. Mr. Heatherington spoke the last few minutes of the last day and he tells me that he made an error and he wanted to correct it.

"Dear Mr. Hauck: As you know, I expected to speak following you yesterday, and that you would have the facts and figures to give. My only purpose in speaking was to point out that in my opinion the State of New Jersey was going to venture into an entirely new field and one in which they expected to make a yearly profit of $700,000. Senator Dumont was able to let me speak just before the close of the day's hearing. When I spoke I misquoted some figures and I would like you to see that they are corrected. The acreage of Union Township is 17,270 acres and the proposed Spruce Run Reservoir will take out about 11 percent of the Township area. However, we feel that regardless of the amount of

land taken by the State, whether it be one acre or many, that part of the income derived due to the use of this land should revert to the municipality in which the land is located.

"The proposed plan calls for recreation areas about the reservoir. This will mean an influx of recreation seekers and consequently heavier use of our local roads and in all probability more policing. Some payment to be based on ratables as of now doesn't take into account further inflation. If the land and property values of 20 years ago were in effect today we would be woefully short of our present need for funds.

"Who of us can tell where prices will go in the next 20 years? Any agreement made on today's ratables could be vastly inadequate in just a few years, while all during these same future years the municipalities below the dam site will be growing in size and value due to the use of water caught and stored in our municipality.

"The additional water will invite new construction, both industrial and residential on their undeveloped land while we will have surrendered any possibility of future income from our 2,000 acres and they will receive the benefits of any trend toward increases in property values while the value of our land taken will remain the same.

"We feel we should receive a compensation for the present value and also some share of these profits to defray the costs that would arise due to the reservoir. Most certainly, if the State intends to make a profit, we should be entitled to enough of the share of these profits to keep us whole. This business of taking land from rural counties cannot go on indefinitely. We too have problems and the day has arrived when the State must consider the fact that the citizens of the municipalities relieved must reciprocate on the aid and thus help those from whom they receive this aid. Not only will the State show a profit on this water but so too will the various water companies that purchase the water for resale to their customers. It probably would not cost the average consumer but a few cents a year to adequately compensate all the municipalities that would suffer any loss.

Yours truly, John W. Heatherington, Member of the Union Township Committee."

Thank you, gentlemen.

SENATOR DUMONT: Thank you, Mr. Hauck. Any questions of Mr. Hauck? Senator Crane.

SENATOR CRANE: Mr. Hauck, I am probably over-simplifying this but I would simply like to ask you this question: Which is of more concern to you in a period of drought, lack of water or lack of recreational facilities?

MR. HAUCK: Well, I think, naturally, Senator Crane, up in a rural territory it would be lack of water. The need for recreational facilities in a rural county is not as great as in a town or city in a large county. We have our swimming holes, farm land, rural territory, beautiful territory - you ought to come up some time.

SENATOR CRANE: Sir, I have been through and I love that part of the State.

I would like to ask you this then: We have heard from testimony that we could say is expert testimony because I believe they were engineers, those who reported to us, that at certain times the reservoirs would be low, and they pointed out that in four out of five years they would be normal, once in every ten years they would be down perhaps ten feet, and once in 20 years they would be down as much as 80 percent. Now, isn't it reasonable to presume, sir, that when a reservoir is down 80 percent it must be a drought period?

MR. HAUCK: Definitely.

SENATOR CRANE: Well then, don't you believe that even though we have only 20 percent left that this is exactly what that installation is there for?

MR. HAUCK: I agree with you, Senator, but I think if you can get Round Valley going, and I think you can get it going soon if you can take Raritan River water, might answer the problem rather than building the Spruce Run and Stony Brook.

SENATOR CRANE: Sir, what I am thinking of as I sit here these days and attempt to formulate with you a sound water policy - I submit that there is rather an ample enticement to go to the Delaware and that if we use the Round Valley to store Raritan Water, actually we are taking water from the same source that we now seem opposed to but we need something to tide us over until we go to the Delaware. Now, we could develop Round Valley but it will cost considerably more than the small dam project and, as I had conceived it, these small dam projects would be a stop-gap measure. Now, in that case, if we did not develop Round Valley, the Round Valley land would come back into taxable preserve, would it not?

MR. HAUCK: You mean, Senator, that you would resell those homes back to all those people who found new homes. I don't think you mean that.

SENATOR CRANE: I am just saying, sir, that it might prove impractical, in view of the advantages of

the Delaware, not to develop Round Valley. I am being just hypothetical, theoretical, but we are talking of opposition to a Raritan Program, the placement of it, and we have been told many of the advantages of the Delaware which is ten years away. So is a long-term Round Valley development. It appears from testimony today that we need more or less immediate water, something within the relative terms of three to four years.

MR. HAUCK: Well, Senator, you have Round Valley bought. Why couldn't you put the water in Round Valley now from the Raritan, particularly during flood periods, just as you were going to do in Spruce Run and Stony Brook? Let it come back in the Raritan, as you plan to do with the other reservoirs, and you would still have Round Valley Reservoir to bring in Delaware River water, and tap it from the Frenchtown area, as planned, after the situation is worked out between the various states with approval of the United States Army Engineers. Why can't that be done.

SENATOR CRANE: I was thinking in terms of cost, sir. Round Valley is $60 million, roughly.

MR. HAUCK: Well, you are going to save the cost of the two, Stony Brook and Spruce Run, and you are going to have Round Valley built , and we are assured that Round Valley will be used, eventually, and will be needed.

SENATOR CRANE: Possibly in total over-all development. We will either have to go to the Delaware

or Round Valley. But we couldn't afford both at the same time.

That's all I have, Senator.

SENATOR DUMONT: Mr. Hauck, let me make sure that I understand something. Now, in your recommendations your plan is that legislation should be changed so as to take out the restriction of confining only or impounding only Delaware River water in Round Valley, and changing that so that water out of the South Branch from Hamden would come into Round Valley and then Round Valley would be developed in the first stage and then we would go to the Delaware River in due time.

MR. HAUCK: That's correct.

SENATOR DUMONT: And that would be a substitute for this particular plan of the Citizens Water Resources Advisory Committee. Is that correct?

MR. HAUCK: Yes. Because, Senator, you would then be getting just a little below the Spruce Run water and the Mulhocoway Creek water. It would be coming - a few miles below the Spruce Run site it would be leaving Hamden, which is a good spot to take it from, and pipe it not too long a distance over into Round Valley.

SENATOR DUMONT: Now, is this a proposal that you are making as an individual or does this generally have sentiment behind it in your county?

MR. HAUCK: Well I have heard Senator Lance and Assemblyman Bowkley suggest and question why this

couldn't be done to some of the officials who were present at a meeting we had in Clinton Township when the Spruce Run Reservoir was presented to the taxpayers.

SENATOR DUMONT: How do you feel about the suggestion that I understand Senator Lance made at that meeting too, regarding the use of the Ken Lockwood Gorge instead of Spruce Run.

MR. HAUCK: Well now, there's another thing. Mr. Shanklin said that one of the reasons that was turned down was because it had a lot of opposition from the sportsmen. Now one of the reasons Spruce Run is being built is because it will be recreational, for fishing and boating. So, if they use the Gorge, they could certainly have fishing. It won't be fly-trout fishing with boots on in a stream, but it will be fishing from boats instead. I think that the Gorge Plan is a good plan, particularly the plan that Mr. Heitzman, from our Township, recommended, that the dam be built right below Lake Solitude which recently was sold by Taylor Wharton, a private citizen, and by doing that it may not - and again, of course, this is engineering - necessarily have to run up and take in all of Long Valley, Califon, Middle Valley and the other towns that were mentioned here today. But it would still give additional supply which could go into Round Valley by gravity.

SENATOR DUMONT: And that would be instead of constructing the dam as I think Mr. Shanklin suggested at the -- I guess it would be at the northeast end of the gorge, wouldn't it, rather than the --

MR. HAUCK: No. I think he meant at the southeast end of the gorge but that would be above Lake Solitude.

SENATOR DUMONT: I see. You said you had a question you wanted to ask of Mr. Ritter too, didn't you?

MR. HAUCK: Yes. If Mr. Ritter would turn to page 16 on the Spruce Run Reservoir, I know that Mr. Ritter's firm did not do extensive engineering, an engineering survey, and if he will look at the dykes, the right-hand dyke looking at the picture - Mr. Ritter, can you tell me the difference in the height of the reallocated road above the dyke and the altitude or the height of the road below the dyke after the road was reallocated?

MR. RITTER: There were no detailed surveys made and profiles of the proposed road. If that road is carried through across the reservoir it would be carried through approximately five or ten feet above water level, sir.

MR. HAUCK: Well, do you know how tall the dyke is to be there?

MR. RITTER: Not exactly, sir, but the approach ramp would be according to normal State Highway standards,

probably two to three percent grade rather than any steep grade, and it is entirely possible that that portion might swing slightly to the right and cross the dam on a narrow crossing rather than on the exact identical alignment.

MR. HAUCK: Well, Mr. Ritter, that point where the dyke is, I am very familiar with it, is a level stretch of road beginning at the little intersection right below us and if you are going to put a dyke up the dyke is to increase the level of the water, the height of the water in back of the dyke, is it not?

MR. RITTER: That's right, sir.

MR. HAUCK: And you have no idea how high that dyke would be.

MR. RITTER: I have a U.S. geological map here, sir, that we can look at later to get the exact height, but as an alternate to that you could swing around to the right of that dyke and make it a different crossing, sir. The alternate could be done by the Highway Engineer, if this project is authorized and detail highway relocation plans are made at that time.

MR. HAUCK: All right. Thank you.

Gentlemen, in closing I certainly strongly urge that you have better engineering before you pass this bill and before you put a bond issue up to the public. I think you would save the state a lot of money.

SENATOR DUMONT: One more thing, Mr. Hauck. Suppose this legislation were changed to take out the restriction to the Delaware River water; if you took it out would you just take it out, period, and not make any limitation as to what then should be used as a source of water supply for Round Valley or would you limit it to the South Branch of the Raritan from Hamden?

MR. HAUCK: Oh, no. I'd leave it open. There may be other sources like the Gorge for future use which, of course, again is the Raritan.

SENATOR SUMONT: Senator Crane wants to ask a question.

SENATOR CRANE: Not of you, Mr. Hauck, but relative to a question that you put forward so I wanted you there in case you wanted to comment afterward.

I wanted to ask Mr. Ritter, since engineering seems to be the bone of contention these days - Mr. Ritter, what sound engineering reason had you or had others for recommending Stony Brook and, specifically with reference to Mr. Hauck, Spruce Run?

MR. RITTER: Senator, Spruce Run is one of the best reservoir sites in New Jersey. All the surveys have indicated that the confluence of the Mulhocoway Creek and Spruce Run is an ideal dam site for one of this size. It is about 30 miles up from the confluence, it will firm up the flow and some 30 miles of reservoir. There is a proper amount of drainage area behind it, approximately 40 square miles behind the

reservoir of 10 billion gallons, which is a reasonable maximum development. The geology on the reservoir, as reported in the Tippetts-Abbett Report, indicates there is some limestone there which may require aggrading during construction. The Stony Brook Reservoir is also another ideal reservoir of the proper capacity for its size. Again it is about 30 miles from the confluence and the big advantage of Stony Brook in Mercer County is that maybe ten miles of the stream below the dam the low flow would be improved during drought periods.

There are so many reasons. I don't know whether I have given enough or what. There's one thing about the engineering cost that I would like to emphasize. If you read the Tippett-Abbett Report, the cost there is around 9 and a half million dollars for these two reservoirs. We have an allowance of $14 million dollars which we hope is more than ample. It is entirely possible that both of these reservoirs can be built for less money than this. We think that an estimate which is 50 percent more than just two years ago is certainly ample, sir, for engineering costs.

SENATOR CRANE: Mr. Hauck, would you like to respond?

MR. HAUCK: Mr. Ritter, wouldn't you feel better if your company or some other company spent the little over a hundred thousand dollars that you

suggested and gave the State of New Jersey a good, accurate, detailed engineering report before going ahead with this plan?

MR. RITTER: No, sir. I think a decision has to be made as to which areas are to be selected. It is entirely possible that this area will be voted down completely. As I remember it, two years ago another reservoir site was voted down.

Now, I would like to emphasize another thing. I think Spruce Run is tied in with Round Valley, that if Round Valley is ever filled I think it is almost mandatory that Spruce Run be there beside it as an on-river reservoir to provide the same flow in the river. I think Spruce Run and Round Valley are locked together irrespective of when either are built.

SENATOR CRANE: Mr. Hauck, I would like you to take this encouraging word back to Hunterdon, if you will. Union County, New Jersey, which I represent, is not without the same problem. We have the newly proposed Route 22 coming through and, of course, it has been laid out through our best homes, best schools, best churches and best graveyards. There is a great deal of audible concern about it and I am hard pressed to combat it. I suggested that our County Engineering Staff survey the area themselves to make counter-engineering proposals, and the head of the Roads and Highway Department said "Bob, you don't want that." He said, "The engineers will tell you that's the best route." So I know that engineers consider statistics, the Legislature

has to consider statistics and human beings. So I assure you that there will be refinement but, for myself, I think engineering sufficient to the day, for routine purposes, has been conducted.

SENATOR DUMONT: Thank you very much, Mr. Hauck.

We have here a few copies of Senate Bill No. 873. This is the bill that's now passing in the Pennsylvania Legislature.

Now, in the event that any of you folks take a copy of this and want to identify any of the sponsors, I'll tell you according to my recollection where they may be found, aside from in Harrisburg. Senator Yosko represents North Hampton County. The Pennsylvania Senate is set up by districts, not counties. He represents a district which comprises all of North Hampton County and his home is in Bethlehem.

Senator Dent is Minority Leader of the Pennsylvania Senate and you will have to go quite a distance to find him because he represents an area close to Pittsburgh, as I recall.

Senator Scott represents a district of four counties, Wayne, Carbon, Monroe and one other one. That's generally the area from Stroudsburg to the north and west, somewhat.

And Senator Watkins, I think, represents Bucks County, the Doylestown-New Hope area.

You may have these copies if you want them, and I think there is also one copy here of Assembly Concurrent

Resolution No. 56, which is the one that we mentioned earlier that was passed by the Assembly here yesterday and refers our Legislative Water Study Commission to the Pennsylvania Commission to discuss this legislation now passing the Pennsylvania Legislature.

Now, we have two more witnesses today. Mrs. Hughey was here all last week and I think it is only fair that she should go on now.

Mr. Van Wegen, how much time will you need?

MRS. HUGHEY: I am going to defer to the Watersheds Association.

SENATOR DUMONT: Are you sure you want to do it that way?

MRS. HUGHEY: Yes, Senator.

SENATOR DUMONT: Do you want to testify at a later date then?

MRS. HUGHEY: Yes, I want to testify later.

SENATOR DUMONT: All right. Mr. Van Wegen, I think you are the gentleman in the news and we want to keep you clear on your statement of earlier today.

Mr. Van Wegen will be speaking on behalf of the Stony Brook-Millstone Watershed Association, Inc. Mr. Crooks is going to produce a map that you can follow as Mr. VanWegen speaks.

PAUL VAN WEGEN: Thank you, Senator Dumont and Senator Crane. I see most of the press, whose jobs I am now saving, have gone.

SENATOR DUMONT: Well, we will inform them that you were on, if there is any question about it.

MR. VAN WEGEN: All right.

I am Paul VanWegen, President of the Stony Brook-Millstone Watersheds Association. My home is in Hopewell Township, two miles west of Pennington, and is not affected by the proposed dam. My full time occupation is Secretary of the Investment Advisory Firm of Harland W. Hoisington, Inc. of Princeton.

The man inviting me to join the original Trustees of the Watersheds Association said, "there may be some immediate benefits from the program of our group, but the prime beneficiaries of our interests in conservation will be future generations".

I accepted that standard of achievement, as do all 23 Trustees. Officers and Trustees serve without remuneration of any kind.

Our position on Bills S-272 and S-273 is motivated by the same objective standards which have always prevailed in our organization. Our concern is, and has been for eight years, the conservation of all resources of our area to the end that human beings can lead fuller and more satisfying lives through the wise use of all resources, of which water is one.

Senator Dumont and Members of the Committee, I want you to know that I have heard only praise from every quarter for the manner in which you have conducted these hearings and the determination you manifest to get as much information as you can.

However, if we are to whip the water problem in New Jersey, some attitudes evident last Thursday will have to undergo a change. To be specific let me say that advocates of one down river sentiment expressed the uncompromising position that if the Stony Brook were not included for immediate development with Spruce Run they would vote against the present proposals.

Another position expressed great concern over the competition from the Elizabethtown Water Company and pollutions up-stream from New Brunswick, but showed no concern for down stream residents below New Brunswick.

In 1955 the citizens of Somerset and Middlesex had an opportunity to get water from a reservoir in their own territory - Chimney Rock. It was opposed by them and defeated at the polls. Now that the proposed reservoirs are in other counties, they voice their vigorous approval.

There was sparring over, and dragging of heels, in developing Delaware River water, and limitations were written in the Round Valley legislation. It is our earnest hope and ambition that we can rise above the differences that have separated various interests in the past and can approach the present problem in a true spirit of "Let by-gones be by-gones". Furthermore, the proper approach to a problem of this nature is to fit it around the objectives of sound planning and not from the point of view of immediate expediency. We should deal with this matter on an objective, State-wide basis.

Last Thursday we were somewhat surprised by the number of criticisms and amendments which came from the so-called proponents of these bills. We ourselves are listed as opponents, but this is somewhat misleading, as every major criticism which we would have voiced has already been made by the proponents themselves. Such comments are the easiest part of this job, and it is our hope that we can make some helpful suggestions for the solution of the problems at hand. Whether this should be by amendment of the present bills or new legislation is something we are happy to leave to your experienced legislative machinery.

Before doing that, some observations on the work of the Advisory Committee and the T.A.M.S. legislative report are in order. Those who have read the latter must agree that it does an excellent job of surveying possible sources of water.

The Advisory Committee, without benefit of further engineering data, undertakes to make a selection of two sites. We believe that a necessary in-between operation has been omitted, especially in Stony Brook. We do not believe it is good democracy or economics to throw a $14,000,000 blob at citizens, the greatest known quality of which is its "margin for errors". Blank checks are dangerous and it would appear that this is the major cause of dissatisfaction.

One cannot possibly know what any proposed reservoir will do to a countryside until 2 foot contour studies show what happens at different elevations. Only this will show whether there are apt to be mud flats at one elevation and not at another. It is just good common sense that this be done before acquisition of land begins. Furthermore, test borings at a dam site are absolutely essential to determine if it is a practial site and how much a dam will cost on such a site. Information of this type can only serve to win the support of people rather than alienate them as the present proposal has done.

Contrary to the belief of many, money spent in this manner is not wasted. Its expenditure either eliminates an impractical site or tells you the proper dimensions if it is practical. In any event, money so spent becomes a cost of those structures which are built, and it matters little if the funds come from general appropriations or a bond issue. We believe support for an eventual project would be given more readily if ground investigation costs came from appropriations.

The Watersheds Association endorses President Dodd's statement which he made to your Committee last week in which he said, "If the proposal is indeed a sound one, it will gain strength from more careful public examination."

I would like to say this concerning Mr. Ritter's presentation. He is a professional man working under the directions and limitations imposed by the Advisory Committee.

If he is unable to answer certain questions, it is not his fault, but that of the Committee for not anticipating the scope of information which would be demanded by people in making intelligent decisions. I believe the people of our State are alert and interested citizens and worthy of being partners in developments affecting their future. It is apparent to all that they will not endorse a blank check.

Specifically what do we recommend?

1. The development of Round Valley to partial capacity with Raritan water. This makes sense if the acquisition of land was wise in the first place. To acquire other land while Round Valley is a frozen asset is not good public business. Simple legislation can pave the way for this.

2. Proceed with all reasonable haste to commitments looking to the future use of Delaware River water.

3. If needs demand the immediate construction of Spruce Run, there are two asset factors in its selection. They are: (a) existing desirable contour lines as drawn by the engineers of the Department of Conservation and Economic Development, and (b) a fairly rural territory which would give rise to fewer dislocations than in many more populous areas. If this site is used we believe that realistic compensation for lost ratables should be a part of the plan of development. Such compensation should provide a stopping point if and when ratables, by virtue of

the reservoir, equal or exceed those lost at the time of acquisition.

4. We have been told that the on-river reservoirs idea represents a new concept in water supply. For Stony Brook we would like to extend that concept one step further.

Most of you are aware that we, with the Department of Agriculture, 2 Soil Conservation Districts, the State, as well as the counties and municipalities in our area, have been working on conservation reservoirs on the tributaries of the Stony Brook. We had hoped to have one of the 9 proposed dams under construction by July 1, this year. Of course that work has been at a standstill since May 2. The Federal Government was to share the cost of this $500,000 project. And I might mention that this map over here, the red blobs show the location of the 9 dams.

These dams can be redesigned as multiple purpose structures to include water supply storage as well as for local conservation measures. The Government, we believe, would still share in the cost under Federal Act 566, of the 85th Congress, with the State or private interests bearing the additional expense of making them multiple purpose. We believe that such dams would contribute much to the recharging of ground water and maintaining a more stable flow in Stony Brook, Millstone and Raritan Rivers. In such a program it might be feasible to include one or more dams along the main stem itself.

The disruptive dislocations of large reservoirs have led to the defeat of such proposals up to this time by the people of our State, and the proposals of the Advisory Committee could suffer the same fate if reasonable alternatives cannot be found.

Small dams could be built at much less cost, could produce the same results, and would cause no major dislocations.

The gauging station on Stony Brook at Route #27 has been in operation 4 years. It was built under the stimulus of our Watersheds Association, and we were joined by the municipalities, the United States Geological Survey and Princeton University in paying for its installation. This gauging station would measure the effect on stream flow of the up-stream dams and if a larger dam at some future time becomes necessary it would provide us with the effective water yield of the Valley. This is especially important as there is presently much doubt that the yield is sufficient to warrant a dam of the proportions recommended by the Advisory Committee.

Many small dams instead of a few large ones could well prove to be an acceptable compromise to the people of the State and a principle which could be extended to other valleys than Stony Brook.

It should be borne in mind that substantial amounts of money have been spent on the small dam project by the Watersheds Association, Princeton University, two Soil

Conservation Districts, the Soil Conservation Service, counties, and other agencies. If the big dam project is approved, these agencies could legitimately look to the State for reimbursement of expended funds.

5. With the precedent already established in the operation of the North Jersey District Water Supply Commission, we feel the best long range development of water resources might come from establishing a Central Jersey Water Authority and a South Jersey Water Authority.

6. A modest pilot study to test the Sanford theory for use of underground water of the Pensauken sand and gravel of the Upper Millstone. All indications point to a very valuable source of underground water supply for the Raritan Basin from this source.

7. We have one final recommendation. With water in scarce supply, we should no longer act as though it were plentiful. The State should lose no time in enacting legislation requiring certain minimum standards of conservation in industrial and municipal use. A western steel mill produces a ton of steel with 1400 gallons of water while the average for industry is 65,000 gallons per ton. Some middle ground between the two extremes should be required of all.

Standards of water treatment for the return of water to the stream in maintaining minimum flow, reducing pollution, and stopping salt intrusion should likewise be established.

Gentlemen, we are grateful for this opportunity to present our views on the current water situation, and pledge our support in solving it as long as its solution proceeds on reliable data which is made known to our people as stages of progress develop. An out-of-State water engineer of high repute said last week, in regard to the work of the Advisory Committee on Water Resources and to the two bills proposed by it, "New Jersey is groaning in child-birth, but is giving birth to a mouse." Our suggestion should be helpful in avoiding false labor.

(Applause)

SENATOR DUMONT: Any questions of Mr. VanWegen?

SENATOR CRANE: I have a few.

SENATOR DUMONT: Senator Crane.

SENATOR CRANE: Sir, these are very short. First of all I want to compliment you on your presentation. It was a pleasure to hear and I want to say that point 7, on page 5, certainly hit the mark, as far as I am concerned, with respect to not acting as though it were plentiful, the water supply.

I noted, sir, that your reference to the TAMS Report - you said it referred to possible sources. My opinion was that it was possible sites. Now, would you care to make a comment on that?

MR. VAN WEGEN: Yes, Senator Crane, I would be glad to comment on that. I have two observations to make in regard to it. Let's say in the first place that it is

apparent to those people who have thought about it very much that competent engineers can build a dam any place they want to if they have the money. There is no doubt about that. A dam can be built wherever people will authorize it if they will pay for it.

Now, there is another question to that. Is it wise? Will it produce the results that are desired, that are needed? At least in regard to Stony Brook, the TAMS Report and the Report of the Advisory Committee could not possibly have supplied those answers for a reason that I alluded to in my paper. One is that Stony Brook has never had a gauging station on it until four years ago. No one knows what the water flow of the stream is because we have been selecting it for four years and no one has used it, neither the TAMS Committee nor the Advisory Committee has used it. We have established rain gauging stations in the basin so that we are now accumulating data both as to stream flow on Route 27 and as to the actual rainfall in the Valley. Now, all of the recommendations which were made by the TAMS Report and by the Advisory Committee in Stony Brook have been built on averages. They have not been built on data in the Valley itself.

Does that answer your question?

SENATOR CRANE: Yes, sir. Now I want to ask you further, sir. I believe that the Millstone Watershed should be complimented on forwarding criticism in so short a time. You have certainly become well organized,

as the gallery would indicate -

MR. VAN WEGEN: May I change your tense? Not "have become", we are and have been for a long time.

SENATOR CRANE: I'll accept the amendment.

I wanted to ask you, sir, if in your connection with it you are considered a water expert.

MR. VAN WEGEN: No, sir.

SENATOR CRANE: Do you have one in your employ?

MR. VAN WEGEN: We have access and we have had beautiful cooperation from all agencies of the State, all agencies of the federal government that operate within the State. We have never had a water expert in our employ, sir.

SENATOR CRANE: Well, do you intend to have one testify in behalf of your findings here at this time?

MR. VAN WEGEN: We have not considered it.

SENATOR CRANE: Your Association will not forward, therefore, what might be considered expert testimony? Not that we have established that ours is expert yet, sir, but - I mean we are just talking as a matter of conjecture. You are not going to present engineering testimony by an engineer?

MR. VAN WEGEN: Well, there is an engineer who is going to speak in behalf of the Watershed Association.

SENATOR CRANE: A water engineer, sir?

MR. VAN WEGEN: Yes, a water engineer.

SENATOR CRANE: He is on this list to testify?

MR. VAN WEGEN: Yes he is.

SENATOR CRANE: What's his name, sir?

MR. VAN WEGEN: Russell Riker.

MR. CROOKS: May I just point out in relation to that, that he is not an employee. Mr. Van Wegen's answer was as to an employee.

MR. VAN WEGEN: No, I said we did not have an employee and didn't anticipate having one. Mr. Riker is a Trustee and a water engineer.

SENATOR CRANE: Fine. Now to simply amend the record at this time - the name will be completed at a later date by testimony but you mentioned the Sanford program for development of the Millstone - that is a plan developed by Homer Sanford, a water engineer of Elizabeth, and I believe his proposal is for dredging more or less a canal through the swamp and pumping the water out over a dam. It is rather a very novel plan and has intrigued many people.

Now, sir, from your observation, at what time in engineering schedules are these borings and other exhaustive tests conducted, in your estimation? before the site is adjudged worthy of a project and therefore a pre-engineering test is conducted to facilitate construction or after they have actually started?

MR. VAN WEGEN: I think it's a concomitant of the selection. I don't think you can make an intelligent selection without it. The TAMS Report will tell you - here's a valley with water in it and from the looks of the thing a dam can be built - but

I think only your engineering studies and data can tell you where it should be located. I tried to indicate that in my report.

SENATOR CRANE: Yes, sir. Now, do you know of any dams that were actually established going through that rather exhaustive technique before they ever began.

MR. VAN WEGEN: Ours would be had we not stopped. I might say that these little conservation reservoirs that we have portrayed here on the map were selected and designed after engineers of the Department of Agriculture spent ten or eleven months not riding through but actually walking the watershed many, many times with surveying instruments.

SENATOR CRANE: Well now, sir, when you said riding through, you yourself talked of the limitations based on Mr. Ritter by the Advisory Committee.

MR. VAN METER: Yes, sir.

SENATOR CRANE: And, therefore, many people do not feel that riding through was a fair comment when you consider what his mission was.

MR. VAN METER: I put that limitation in there.

SENATOR CRANE: Yes, I appreciate that.

MR. VAN WEGNER: I wanted to pay Mr. Ritter a compliment. He, I think, has conducted himself admirably.

SENATOR CRANE: I was afraid that the testimony last week might detract from his professional status.

MR. VAN WEGNER: That's the reason I put this comment in.

SENATOR CRANE: That's very good. That's all.

SENATOR DUMONT: Now, Mr. VanWegen, your principal recommendation then would be along the same lines as Mr. Hauck recommended, that the legislation be amended to take out the restriction in regard to Round Valley.

MR. VAN WEGEN: Yes, that is correct, if you want an answer on the record.

SENATOR DUMONT: And that that be used as a substitute for Spruce Run and Stony Brook.

MR. VAN WEGEN: Right.

SENATOR DUMONT: Are there any questions that anyone desires to ask Mr. Van Wegen? There's a question from upstairs. Do you want to give it to us from there instead of bringing it down?

UNIDENTIFIED SPEAKER: Yes. How long has the Watershed Association been in existence?

MR. VAN WEGEN: The Watershed is 8 years old, six of them as an incorporated organization.

SENATOR DUMONT: Next question?

UNIDENTIFIED SPEAKER: Has any member of the Smith Committee or any of their associates been aware of its existence?

MR. VAN WEGEN: Yes, I am sure, with the cooperation of Rutgers University, which is in New Brunswick, and the publicity that has been given much of our work, and I hasten to add that it has been concerned with as much of this problem of conservation as we possibly could, not just one angle of it, that many of them if not all of them are

aware of the existence of our association.

UNIDENTIFIED SPEAKER: Prior to the exposure of their plan in the newspaper, did they make any effort to take advantage of the information you have accumulated?

MR. VAN WEGEN: No, sir.

SENATOR DUMONT: Any other questions? Mr. Meredith.

MR. MEREDITH: Mr. Van Wegen, along the same line, there have been various witnesses here as proponents of this legislation. For example, prior to appearance in these chambers, did either the New Jersey Congress of Industrial Organizations or the Elizabethtown Water Company or the New Jersey League of Women Voters consult with your organization, to your knowledge, prior to entering a decision in terms of this legislation?

MR. VAN WEGEN: No, sir. I will add this comment, however, that hearing what the position of the League of Women Voters was to be we contacted them and asked what information they had considered from the so-called opponents in reaching their decision. We didn't get a very satisfactory reply.

SENATOR DUMONT: Any further questions? What is your name please?

UNIDENTIFIED SPEAKER: John Mauer.

SENATOR DUMONT: Thank you. I guess that's all, Mr. VanWegen. Thank you very much.

MR. VAN WEGEN: Thank you.

SENATOR DUMONT: I have here a letter from George E. Meredith, Esquire, which is in opposition to the plan. He was here earlier today and asked that this letter be made a part of the record, and he mentions a meeting that was held in Pennington, attended by 600 or 700 or more. This meeting apparently was held on June 7th, 1957, the date of the letter.

The letter will be made a part of the record, as he desires, in opposition to the plan of the Water Resources Advisory Committee.

Now, is there anybody here who is going to be sorely inconvenienced by returning next week to testify? We thought we would .fix a date. There are some problems next week because of the hearings to be conducted here in Trenton by the Law Enforcement Council.

Senator Crane says he has to come back from New Hampshire where they have apparently no water problem.

I will read off the names of those who appeared here today and who wish to testify and see if they can return next week.

Henry Coates?

MR. COATES: Do you know what day, Senator?

SENATOR DUMONT: Excuse me, it will probably be Friday, June 21st. Is that all right.

MR. COATES: That's all right.

SENATOR DUMONT: It seems to be the best day we can agree on in view of the problem with other hearings going on here next week.

MR. SMITH: I won't be here. I will be out of town.

SENATOR DUMONT: When do you have to leave, Mr. Smith?

MR. SMITH: Friday morning.

SENATOR DUMONT: Can you be represented?

MR. SMITH: Yes.

SENATOR SMITH: Will that be satisfactory to you?

MR. SMITH: Yes.

SENATOR DUMONT: Mr. Coates, is that all right with you?

MR. COATES: Friday, June 21st?

SENATOR DUMONT: June 21st.

MR. COATES: As far as I know now.

SENATOR DUMONT: Mr. Riker?

MR. RIKER: Yes.

SENATOR DUMONT: Mr. Crooks?

MR. CROOKS: Yes, sir.

SENATOR DUMONT: Mr. Ruhlman?

UNIDENTIFIED SPEAKER: He left.

SENATOR DUMONT: Mayor Williamson of Hopewell Township?

UNIDENTIFIED SPEAKER: He left but he will be able to return.

SENATOR DUMONT: MR. COLEMAN, Attorney for Lawrence Township.

Mayor Coffee of Lawrence Township?

SENATOR DUMONT: Mrs. Hughey? She will be back.

Mr. Rigby, Roy R. Rigby, Attorney for Hopewell Township?

MR. RIGBY: I can return next week.

SENATOR DUMONT: Mr. Edward L. Mount? Mr. Joseph S. Bash, Counsel for Mercer County? Mr. David Kelsey, Counsel for Mercer County? Assemblyman Vincent Panaro?

Well, hearing no objection, I guess they can come back next week.

Mr. Sanford, you wish to testify at some point?

MR. SANFORD: Next week.

SENATOR DUMONT: All right. Is there anybody else who cannot return next week to testify at that time, who has to go on today?

Then we will declare this hearing adjourned until Friday, June 21st, 10:30 A. M., here in the Assembly Chamber.

(Hearing adjourned)

GEORGE E. MEREDITH
COUNSELLOR AT LAW
363 WEST STATE STREET
TRENTON, N.J.
EXPORT 6-5561

June 7, 1957

Honorable Wayne Dumont, Jr.
701 Hillcrest Boulevard
Phillipsburg, New Jersey

Dear Mr. Dumont:

When Mr. George Smith, whom I know and respect as a public-spirited citizen, who has given invaluable service as a member of the Turnpike Authority and other agencies, stated in effect, before your committee one week ago, that there was no opposition to the "Advisory Committee's Report", except for a handful of disgruntled landowners around Pennington, I bristled. (Had Dr. Dodds been there he would have shuddered.) All that he had to do was to turn his head, look upward, and see 200 or 300 intelligent, fair-minded American citizens interested in the common good, seated in the gallery, who, like the man from Missouri, merely wanted to be shown.

These people, men and women, were only a fraction of the citizens from Princeton, Princeton Township, Hopewell Township, Borough of Hopewell, Borough of Pennington and Lawrence Township, and only the ones who could afford to take the day off to attend the hearing without losing a day's pay.

Tonight a meeting was held in Pennington - many were there - 600 or 700, or more - and many were standing, including many who could not attend a Legislative Hearing. This, I thought, was remarkable, because the committee, lacking funds and pressed for time, could not publicize the meeting broadly -- it was accomplished by word of mouth. From my personal knowledge, all came from the areas mentioned. Many more would have come, but the demand for baby sitters was great.

Does that indicate that "only a handful of the Pennington residents" resented the fact than an ill-conceived, secret program produced by an administratively-appointed agency proposed without sufficient consultation or study, a suggested course of action which will destroy the beauty and the agricultural value of the Stony Brook area, and objected to a recommendation which they know is of no value to the area? Why was the Stony Brook-Millstone Watersheds Association not consulted?

I repeat, I have great admiration for Mr. Smith and his integrity, but I think that in this instance somebody "pulled his leg". I am convinced that neither he, nor the members of his committee did the work nor did they do the thinking. The work was done by "legmen" (from Baltimore and Newark), who, apparently did not realize the real

potentials of water creation and conservation for the industrial needs of New Jersey; namely, the Raritan and Delaware Rivers. Nor did they appraise realistically land values as of today. Neither did they realize the excessive loss of revenue to the Boroughs and Townships affected, nor the distress and inconvenience of 60 or more homeowners affected. (I readily admit that I am one of the latter, but am willing to retreat if it can be established that I am wrong, and that the common good will be served by the now apparently questionable proposal).

The only purpose of this statement is to have it on the record and to have the matter decided by the committee and the Legislature in accord with established and provable facts.

Very truly yours,

George E. Meredith

George E. Meredith

GEM/jmr