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 6, 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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A.M. INDEX OF SPEAKERS

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SENATOR DUMONT (THE CHAIRMAN): This is a public hearing to be conducted by the Senate Committee on Revision and Amendment of Laws on Senate Bills Nos. 272 and 273.

I might add at the outset that the Assembly Committee, which is our counterpart on Revision and Amendment of Laws, when we questioned them as to whether they would like to participate, thought that, inasmuch as the bills are presently assigned to the Senate Committee, they would just as soon have the Senate Committee conduct the public hearing.

I would like to assure you that everyone will be given an opportunity to present their viewpoints and say what is on their minds. Also, we know that there are some groups that will want some time for preparation of their cases and, whether they be for or against, they will be given some time, probably not as much as they would like, but some time, at least, to get ready.

We expect that this hearing will consume more than one day, and I would prefer that we hold one hearing a week because at the present time the Legislature is in session and we must be certain that adequate opportunity be given to everyone who desires to testify to have that opportunity.

There is one ground rule I would like to lay down on behalf of the Committee: There are not to be any questions asked from out on the floor of a witness. All witnesses will come to this chair right here in front of the table and will testify from this point. You don't have to be sworn, but any questions desired to be asked of a witness, if you will present them to the Committee, we will see that they are asked,

provided we believe they are relevant to the proposition that is being worked out or decided upon here.

There are five members of this Committee. Some have not arrived as yet. Senator Robert C. Crane of Union County is here, to my right, and he will be the first witness for the proponents on behalf of these bills, Senate 272 and Senate 273, which are being sponsored by him. So at this time we will hear from Senator Crane of Union County, sponsor of the bills.

Excuse me. Senator O'Mara?

Ex_SENATOR EDWARD O'MARA: Mr. Chairman, before Senator Crane starts to testify, may I say for the record that I am appearing on behalf of the Citizens Committee for a Sound Water Plan which is composed of residents of Princeton and the vicinity, and they are appearing in opposition to the bills.

In connection with what you said a moment ago, Mr. Chairman, that everybody should have an opportunity to speak their piece after there has been a reasonable amount of preparation, I want to make it clear that, as far as my clients are concerned, we feel very strongly that these bills having been introduced only ten days ago, on the 27th of May, we will require a reasonable amount of time to prepare the opposition to the bills. It will be necessary to produce technical witnesses, of course, and while I am not making the request for any specific amount of time at this moment, I would like to inform your Honor that we will not be prepared to go ahead today but that, in my judgment, it will require the securing of a transcript of the testimony of the proponents of the bill in order to adequately prepare the case in opposition, and my

judgment is that that cannot be done in a shorter space than two weeks. Really, it's going to take a lot more than two weeks, I think. But I would ask the Committee to take into consideration the fact that this is a most important project, important to the State and particularly to this particular area of the State, and vitally important, of course, to Princeton and its environs. And so I am asking the Committee at the proper time to take into consideration the fact that there ought to be an adequate time for preparation, and we will leave it to your good judgment to give us the maximum amount of time that you can consistent with your legislative duties.

SENATOR DUMONT: Senator, your request will certainly be given fair consideration. I am concerned about not having another hearing in less than two weeks from now. However, we will have to see what kind of progress we make today. We have about ten witnesses listed here as proponents and some who want to testify against the plan today; then there are some other witnesses, I know, who are coming in, whom I have heard from, so we may not be able to get through all of these today. We will see how we make out and then I can give you a better answer.

Ex-SENATOR O'MARA: May I add one further thing, Mr. Chairman? I would also like to reserve the right to submit questions to the witnesses at some future time, after we have prepared our case.

Now, that might entail some inconvenience to the witnesses, but I would hope that we could work out a situation where it will be convenient for them, if we desire

to ask questions at a future time, to have them returned to the witness stand.

SENATOR DUMONT: You will let us know what witnesses you want to question? I might say, too, that when we get toward the end of these hearings, each side will be given a proper opportunity for rebuttal, so we will handle it pretty much the same as a court case, and each side will have a chance to present and also to rebut the propositions of the opposition.

Senator Crane?

SENATOR ROBERT C. CRANE: Before I begin, Senator Dumont, I would also like to assure Senator O'Mara that, as a proponent and sponsor of this legislation, it is my intent that the opposition be given every opportunity to respond and to criticize and to help us construct a realistic water policy.

Mr. Chairman, ladies and gentlemen, by way of introduction, I should communicate to you the fact that I am Robert C. Crane, State Senator from Union County, a member of this Legislature, and a sponsor of Senate Bills Nos. 272 and 273, currently a subject of consideration as we attempt to cope with New Jersey's growing water problem. Additionally, it should have been said that I am and have been since January 1948 the editor and publisher of a metropolitan daily newspaper in the northeastern section of the State, for it has been primarily from this vantage point that I have come in contact with developments concerning water policy and supply.

I do not claim to address you in the guise of an expert, for I am a writer by profession and not an engineer. The facts and statistics I shall use will be those gleaned

from published documents and other accredited sources of information available to the general public. My interest in the problem of water supply is genuine, and my favorable impression of the benefits to be obtained from an on-river dam program is one of long standing.

> 1. In very few places in this State has the haunting specter of a water shortage created such consternation as in Union County, where wells have been pumped to the danger line of salt water intrusion, and where, during the extremes of the summer dry spells of 1953 and 1954, many homes were without water, fire hydrants were rendered inoperative, and several towns were forced to keep tank trucks filled for emergency purposes.

I would like to state that I discovered that myself when I moved into my new home in Westfield in 1953. The first three days we had no water, and the beginning of the consternation came about when I decided we should test the fire hydrant in front of the house, and we called the Westfield Fire Department to test it and, instead of producing water, it had a hundred-pound suction. So, after the picture was published of a dry fire hydrant, I think people began to think in terms of emergency.

> 2. Since a portion of Union County is served by the Elizabethtown Water Company, it is natural that our people have become familiar with the Raritan on-river dam program they have long advocated.

> 3. Concern continues unabated, for with the lengthy period necessary to resolve the multi-state interest in the Delaware River through federal action, and the delay occasioned therefore by the restriction of Round Valley to the storage of Delaware River water, it is possible that Union County and other portions of the State might be plagued with a return of the protracted periods of water shortage before any action is taken.

With these facts in mind, it is easy to see why the report and the activities of the New Jersey Water Resources Advisory Committee has been of such interest to me. When, in the company of other legislators, I was invited to confer with the Committee on January 28th of this year, I was heartened by the detailed engineering discussion conducted by Whitman, Requardt and Associates in support of a modified Raritan River program, and the apparent widespread acceptance of the proposal that the State should acquire the sites, accomplish the construction, and thereafter produce raw water not only to guarantee maintenance of flow in the stream bed, but to permit diversion of flow for other purposes on a "come and get it" basis.

Now, years ago, I myself would have condemned the proposal of state-owned and operated water facilities as "socialistic." However, one has but to realize the rapid growth and potential of New Jersey's residential, commercial and industrial community to know that large-scale measures are necessary to cope with a water supply program of this magnitude. Secondly, the State remains as the only unit with sufficient powers to acquire dam sites in the face of this rapid growth and development. Thirdly, the incentive for private utilities to do the job has been lost due to high cost of construction and finance, as well as the generally discouraging state control over rate structures and allocations for diversion of flow.

Thus, I followed with great interest the further activities of the Water Resources Advisory Committee and, on

March 26, it was my pleasure to place them in contact with the proper authorities in Union County for the purpose of a conference as to the merits of their proposals as well as the needs of the county. On April 4 my newspaper, consistent with its well-documented support of various moves to improve our water supply, contributed to the fund. On May 1 I received the brochure which was the printed report of the Committee.

The two bills before you today for consideration are a result of that interest and liaison. And while it is to be admitted that the bills were drawn in cooperation and consultation with the Water Resources Advisory Committee, this was done solely to assure that the legislation forwarded the modified Raritan program, and to faciliate public hearings on its feasibility.

It would be a rare occasion, indeed, if the bills were found to be perfect and free from controversy, and I can not believe that they are, for I, too, have some reservations, criticisms, and suggestions regarding their provisions.

In propounding this, I have sought advice and counsel separate and apart from that of the Water Resources Advisory Committee to assure, in the final analysis, that the legislation is representative of broad interest.

First, I am satisfied that the Raritan on-river dam program is neither new nor unworkable, for I have found it a matter of record as far back as 1913, and its advocacy has not been restricted to the exclusive concern of one group or organization.

In a report furnished me by an independent water engineer on March 18, 1957, the following was disclosed as

to former studies.

The development of additional water supplies in the Raritan Valley by means of small on-river dams was proposed by the Elizabethtown Water Company among others. The Elizabethtown proposals have been reviewed by various competent groups. The original studies were made by the Elizabethtown staff. Subsequently, the TAMS engineers - by the way, they are the engineers who put together the State Report - reviewed these same projects for the State. Later, the Elizabettown Company employed the consulting firm of Gannett, Fleming, Corddry and Carpenter, Inc., to make additional reports on the river development. The latest study was made by Mr. Roy Ritter of the firm of Whitman, Requardt and Associates, Inc., for State Water Resources Advisory Committee.

These various reports have been made on a comprehensive basis and in considerable detail, so the final figures are considered reliable. These engineering studies embraced a total of some 15 dam and reservoir sites on the Raritan and Millstone Watershed. Estimates of productivity and cost were made for each project for the purpose of ascertaining the best and most economical project out of the 15 examined.

Turning to the survey of water proposals conducted in 1955 by a legislative committee, there is much to commend this on-river dam program. And I have with me today, Mr. Chairman, a copy of that report. I note that you were a member of the Legislative Commission which directed the survey.

In the letter of transmittal by Tippetts-Abbett-McCarthy-Stratton on December 31, 1955, signed by James H. Stratton,

there appeared these two brief paragraphs:

> "This, our final report, presents the results of our comprehensive investigation of New Jersey Water Resources. The basic water resources, both surface water and ground water, are covered in detail. Estimates of water demands to the year 2000 have been made and numerous plans and combinations of plans to meet these demands are presented. Legislative action, financial requirements and administration organization necessary to implement these water supply plans are thoroughly discussed. A summary of the report precedes the main body of the report.
>
> "Although the Survey determines the requirements of the entire State, we feel that it is in order to make specific mention of the problems of the Northeastern Region. Our recommendation for the first major new supply for the Northeastern Region, the only area of the State in which serious water shortages are developing on a regional basis, remains essentially the same as in the "Preliminary Survey." This recommendation is for the development of the water supply potential of the Raritan River Basin..."

Then, too, in their summary, they again refer to the Raritan River. And again I cite two brief paragraphs:

> "The Raritan River is the largest economically available intra-state source for new water supplies for the Northeastern Region. Numerous plans for utilization of the Raritan River source for new potable water supplies for the Region are discussed in Chapter II. These plans include use of various combinations of on-river reservoirs as well as off-river reservoirs....."
>
> "Anticipated requirements for potable water in the Northeastern Region to the year 2000 will necessitate the development of 300 million gallons per day from a new source in addition to the proposed expansions of existing supplies. Such a new supply may be obtained from the Raritan River primarily with a supplementary supply from the Delaware River after full economic development of the Raritan...."

Again in this report, it points out our full potential, almost eight billion gallons a day supply of annual surface run-off water and a five billion gallon per day supply of ground water for pumping, and they sum up the water problem,

which is not a case of actual water shortage throughout the State on an average, but a shortage in various areas and the means of getting the water there:

"The water problem in New Jersey is quite obviously not one of the absence of basic resources. It can be said with certainty that enough water is available for development in the State of New Jersey to meet any foreseeable requirement. The problem is that there are concentrations of population and industry located in regions where the demand for water exceeds the natural yield of the surrounding areas, even though sources many miles away have been tapped. In such a situation, it is necessary to go outside the former limits of supply in order to keep pace...."

"The solution of the problem is one of bringing the available water to the areas of demand on the basis of a long-range plan which has been designed to keep with the growth of population and industry. Development of additional water supplies for concentrations of population and industry should preferably begin with the resources most readily available and closest to the areas of demand and progressively utilize more remote sources as required."

And that statement, sir, I submit, points to the development of the Raritan River as most feasible.

In a description of the Northeastern Region in Chapter II, page 1, they describe the developments of the Passaic, Hackensack and Raritan Rivers, and I would like to point out that in the Passaic Valley, which is a like valley to the Raritan, they have developed resources producing

200 million gallon per day supply, whereas the Raritan, as I said, a like basis, now produces only 20 million gallons a day by diversion.

In Chapter II, on page 9, and I am still citing the T.A.M.S. Report, they have a complete detailed and, I trust, accurate description of the Raritan River Basin as to its resources. And in this chapter they deal with those who are the users and potential users, and they point out the industries who use water for condensing and other non-potable uses, those who are the riparian owners and do not pay charges; they also begin to discuss the matter that much water is diverted for purposes of irrigation on a non-paying basis, and in the Raritan River, that at the present time exceeds a billion gallons during a season when irrigation is needed.

I mention that merely because a recent report of the State pointed to the fact that riparian users were turning to our rivers and at Shark River they are using over six billion gallons a day during the height of the season.

In this very lengthy compilation, they offered several plans, and one of the plans, of course, was the Raritan on-river plan; one for sustained flow; again one for sustained flow with provisions for diversion of water for potable purposes. That is contained in Chapter II on pages 10 through 12. It mentions four reservoirs: the North Branch Reservoir, the Spruce Run Reservoir, the Stony Brook site and the Rocky Hill site. It gives the statistics, and I believe the statistics are pretty well universally quoted so that I need not go into that detail.

While I mention what I think to be the good, I feel that I should also mention the bad to prove that we are attempting to look at both sides of this matter.

On page 14 in the T.A.M.S. Report, in discussing on-river basins, it says this:

> "It must be recognized that potable supplies obtained with any of the on-river schemes would not have the advantage of deep storage for quality improvement and low temperature.... The shallow depth of all of the on-river sites (with the possible exception of Spruce Run), and the many swampy areas which would probably be unavoidable in the many arms and branches of the reservoirs, would not be conducive to water of the most desirable quality..."

Trying to follow out that point which does appear to point up the qualities of the water as to temperature and the rest, and perhaps some of the aspects of evaporation and those criticisms that we do hear of small dam programs, I contacted Mr. George H. Buck, who is prominent in the water engineering field and is President of the Hackensack Water Company, and on June 4th he sent me this letter to answer my reservation about that paragraph, and I quote from his letter:

> "In my opinion, the staged development of reservoirs on the Raritan River represents the best and most economical method of meeting the future water requirements of the neighboring counties.
>
> "You have asked my comments on the problems of filtration, evaporation and water temperature. Filtration of reservoirs is not a material problem in this section of the country. Surveys of reservoirs of this company do not disclose appreciable deposition over a period of many years. Evaporation from water surfaces is allowed for in computation of the safe yields of water projects. The effect of evaporation, therefore, is included in any economic comparison of projects. In this region, the average rainfall on the water surface exceeds the evaporation therefrom.

"In my opinion, no substantial additional expenditure for water supply is warranted merely to obtain water of somewhat lower temperature. Extremely cold water tends to mask any taste which may be present in potable water. However, it is far better to exercise supervision, control, or eliminate taste producing organisms or substances from reservoirs and to provide adequate facilities for the treatment of such taste as may occur than to depend upon the masking of taste by a few degrees difference in water temperature.

"The water supplied by the Hackensack Water Company is obtained from relatively shallow reservoirs and is preferred for domestic use by neighboring municipalities over that from systems with deeper reservoirs."

I would also like to point out that on Thursday, May 16th, in the Newark Evening News, all the way from Australia came an article stating that they discovered a way to cut reservoir evaporation by laying on a light film of Cynol alcohol and pointing out that it did not appear to have any adverse effects on the water supply, and it did cut down the evaporation.

Now, as to the various other things that have come up, I would like to point out that the Chamber of Commerce of the State of New Jersey put out this pamphlet, A Water Supply Program for New Jersey, in which the T.A.M.S. Report is condensed, and that was widely available.

As to the State being an agency and, as I pointed out, some might have had reservations about the State getting in the water business, I was rather surprised and pleased to see the New Jersey Taxpayers Association in a little pamphlet, entitled "Water Policy for the Garden State," put out, I believe, in 1956, talked of the State as an agency, and I will quote just two brief paragraphs from

that:

> "Various of these powers are already possessed by the existing Water Policy and Supply Council and its administrative division. The problem is therefore evolutionary to expand the Council's status and jurisdiction so as to convert it into an agency having authority to develop a comprehensive water program for an expanding state economy. If, for statutory or administrative reasons, it would be more practical to create a new agency for this purpose, the foregoing objective would remain the same, but in either case the agency should exist within the framework of the executive branch of state government, preferably in the Department of Conservation and Economic Development where the present agency is located, and be fully subject to appropriation and statutory control by the Legislature."

And that is where it has been squarely placed by this legislation now submitted, and I am in concurrence with that thought. I have been against the idea of authorities constructing these works because authorities, to my feeling, are beyond the immediate grasp of the public and are not quite as responsive to them as the Legislature would be and, of course, the administrative branch of government.

Now, as to the law itself, as it has been put together, and I speak primarily to the two mimeographed copies of the law which I made available the other week when the bill was introduced: Number 1, I would suggest that we add the Water Policy and Supply Council to the definition given in Senate Bill No. 273, because as I might propose that we amend Section 6, I would ask that the Water Policy and Supply Council be the one to hold public hearings in any respect, and that the standard governing the granting of contracts be to properly conserve the public interests. I would like to see that written in.

As for the approval of the contract, I would suggest that they be signed by the Commissioner and Governor, and by "Commissioner," I mean the Commissioner of Conservation and Economic Development.

Now, having read the mimeographed documents quite at length, I would like to admit that this is evidently patterned after the Canal Act, because it so closely parallels it in some instances it refers to the canal and not to the Raritan River, but I believe that actually the Canal Act is a good pattern and that these very same provisions should apply.

Now, as to Section 7, I believe that just and reasonable rates and charges should be established after hearing and notice to interested parties. That provision is not in the act.

In Section 9 (c), the rules and regulations being established there, I would like them to be established only after hearing on notice by the Council.

Section 14, which is an attempt to give credence to the problem of communities and other areas which would be adversely affected by large acquisitions of land for state purposes; in other words, that they would lose valuable ratables - I feel that there should be some repayment.

I was impressed by Senator Lance' remark that ten per cent of his county of Hunterdon, in which the Spruce Run Reservoir would be located, is now in a tax free status with state and county facilities taking up that much land. I believe that additional land-taking should

be taken care of through some rebate provision.

This Section 14, as it was put in as an experimental paragraph, however, I feel is too loosely written and should be more definite. I suggested in the drafting of the bill that we take some previous tax payments as a standard, but I was told that that was too inflexible and that in some cases we would be rebating too much and in other instances rebating too little. But I do have reservations about Section 14, and we will be looking for more definite proposals.

Now, Section 16. The act would appear to leave no recourse beyond appealing to the Commissioner and, while it is implicit in the provisions of our State Constitution, I think it would be better to state right here in the act that, of course, offended and aggrieved persons have the right to to go the Appellate Division of the Superior Court.

As to the plan itself, the description of the diversion of water contained on page 18 of the Water Resources Advisory Committee Report, I would like to state as a matter of personal conviction that too much is being retained for sustained minimum flows and not enough diverted for commercial use; and by that I mean potable water and those who would pay. This would place, I believe, too much of the responsibility for paying for this program on the smallest users because, of course, as the law now applies with those having riparian rights taking water and returning it relatively undiminished in quantity and quality without payment, it would mean that they would get the greatest benefit and those who

are going to take the water and pay for it, actually are taking lesser amounts and, therefore, paying too great a cost.

Now, one thing that is not in this law, although I really think should be discussed. I don't believe that we can go forward in a consideration of a state water policy for putting the State into the water business without considering it. And I would bring to your attention the fact that there are those who would benefit from this program and who will not make payment. I have just referred to them as the riparian owners. I have cited in previous public statements the fact that the Ohio Conservancy District have the power to tax for water improvement and levy the taxes against those who benefit. Now, of course, in Ohio they have that privilege because the Federal Government set up the Northwest Territory and those laws have come down from that day. In New Jersey, however, vested rights go back to the king, and this would be quite a constitutional question, quite complex, but I do feel that when we start putting the State in the water business anyone who would benefit by the improvement of water supply should help pay for those improvements and not be allowed to benefit from expenditure of taxpayers' money without making any payment.

Now, in conclusion, I hope that in reasonable time limits we can see reconciliation of all the factors and some progress made on establishing a sound water policy and, if this can be achieved, it certainly will be a pilot plan for the future. I know that there are those who are

aggrieved by any plan. In my own particular county, and especially in the City of Elizabeth, I have often expressed myself editorially that I am against those who call for us to be a doormat for the path of progress. The railroads and air patterns and highways and high tension lines criss-cross and tend to cut up a community and take land from it, but all those that I cite seem to have the ability to be deflected. When we talk of water storage, we have a rather inflexible proposition. Water storage is more or less where you find it and where it is practical in an engineering sense. So that I know, with such an inflexible consideration before us, that there are those who are going to be aggrieved.

And to close that, I would like to read just this brief part from an editorial appearing in my newspaper:

> "It is one of those stern tests that come upon a democratically-organized society composed mostly of amateurs but dependent on opinions of the experts. The great mass of amateurs must tell the technicians what it wants and what it's willing to pay, but to borrow one engineer's analogy - a man who needs to have his appendix out may not have time to take a medical course to help him decide about it. Up to now, no group has had enough votes to get exactly what it wanted, but enough to block others' plans. The task remains to hammer out a plan which will recognize the wide range of interests involved. Failing this, the result could be something that wasn't big enough or good enough or maybe nothing at all."

SENATOR DUMONT: Senator, under this plan to construct reservoirs at Spruce Run and Stony Brook, how much water is it estimated in millions of gallons per day that these two projects would make available?

SENATOR CRANE: Quoting from the New Jersey Water Resources Advisory Committee, because I have previously said I am not an expert, it would increase the flow to 200 million gallons a day. Now, with no reservoirs, it is 65 million gallons per day. The minimum flow, of course, of that 65 is 45 million gallons per day because we have 20 million gallons per day that are diverted by the Elizabethtown Water Company.

Now, with Spruce Run, which is a ten billion gallon reservoir, we could increase the flow in the river from 65 million gallons to 150 million gallons, and they recommend in this plan that 90 million gallons per day sustained minimum flow, with a diversion of 60 million gallons--Now, that, of course, is an increase of 40 million gallons for consumers and an increase of 55 million gallons a day in the Raritan stream bed, just for maintenance of flow which they hope will help improve the river itself. Then, when Spruce Run and Stony Brook have been put in operation, and Stony Brook itself is a ten billion gallon reservoir, the flow of the river will increase to 200 million gallons a day, and they recommend that they have then 100 million gallons a day for diversion to commercial purposes, which would be another improvement of 40 million gallons, and the sustained minimum flow in the river, however, would only go to 100 million gallons a day, which is a ten million gallons a day improvement over the previous sustained minimum flow with just Spruce Run.

SENATOR DUMONT: What would the total net increase then be? About 100 million gallons per day available under

the two projects in this plan?

SENATOR CRANE: Well, of this total, I would say that it's an increase of total flow of 135 million gallons a day. Adding 135 to 65 bring us up to the 200 million gallons a day. It means a total increase, Senator Dumont, of 80 million gallons a day for diversion and a total increase of 65 million gallons a day for sustained minimum flow, in its total development.

SENATOR DUMONT: Now, the estimate which you have here as to the amount needed by the year 2000 would be about 300 million gallons per day over and above what is now available; is that correct?

SENATOR CRANE: That was in the T.A.M.S. Report.

SENATOR DUMONT: How do you feel about the development of the Delaware River, a bi-state project between Pennsylvania and New Jersey; in other words, provide the long range?

SENATOR CRANE: In long range, I believe that it will be necessary to go to the Delaware, but I am convinced that there is a definite need at present to gain water and we cannot get it from the Delaware because it will take a considerable period of time to get the approval. It requires federal and judicial action and bi-state co-operation. I believe that the development of intra-state resources is much more feasible at this time because we actually have rather a pressing time schedule.

SENATOR DUMONT: Do you think it would take very long to get that approval from the United State Supreme Court

if both the states of New Jersey and Pennsylvania were in agreement as to how they would proceed with diversion of water from the Delaware River?

SENATOR CRANE: Based on past experience, I don't believe it could be done in a short period of time. That which is a matter of record leads me to that belief. I do know that if both states sat down together and hammered something out, it would be possible to do something but not in the same time element that we have here for the development of the Raritan on-river program.

SENATOR DUMONT: Suppose this plan were passed by the Legislature, what is your estimate as to the amount of time it would require to put both these projects into operation; that is, Spruce Run and Stony Brook?

SENATOR CRANE: If it were passed?

SENATOR DUMONT: If it were passed.

SENATOR CRANE: If it were passed, I believe that it would take three years, with the approval of the people this fall, to bring it to fruition, just the first stage of it.

SENATOR DUMONT: Spruce Run.

SENATOR CRANE: Yes. Acquisition of the property and the building of Spruce Run and the filling of Spruce Run. In other words, water would not be available from this project for three years, and by that time I believe we'll need it to the point that it will exceed the supply and that the other dams may have to be developed rather rapidly too.

SENATOR DUMONT: And what's the estimate of time as to the Stony Brook project; in other words, if you took both projects to completion, how much total time would it take? Do you have any estimate on that?

SENATOR CRANE: I am rather inexpert on that but the way it is planned in this law, that Stony Brook be not constructed until two years after the completion of Spruce Run and after sale of half that water that's available is made, were we to go by that plan I would imagine that the Stony Brook might not be completed for three or four years after the completion of Spruce Run. That's just a guess.

SENATOR DUMONT: Well, assuming that it took seven years or thereabouts for the two projects to be completed, do you think that if there were real action between Pennsylvania and New Jersey that it would take any longer than that to make a dam and a reservoir on the Delaware River?

SENATOR CRANE: Well, Senator, first of all I think that, when you speak of constructing this program for the sake of comparison with something like the Delaware project, you ought to discuss it from the vantage point of both dams being built at the same time so that you could get an adequate comparison, because I think that both could be constructed within three to four years. I know that one can be done in three and I imagine that with good contractors you could build the other one at the same time. So I still believe that it would be possible to construct

this before you could complete any agreement and final construction on the Delaware River, and I think that you would find that for the Northeastern sections of this State which has the greatest need, the Delaware water program would be the most expensive as to transmission lines and everything else. For our purposes, we do have present transmission facilities to some degree already operative on the Raritan.

SENATOR DUMONT: Do you have any figures on the comparative cost between the water that would come out of the Raritan and the water that might be obtained from the Delaware?

SENATOR CRANE: I am not sure, but I think that is covered in this report to some extent because I remember, in trying to digest all of this, that there is a discussion of Wallpack Bend, so I believe there are statistics available on it.

SENATOR DUMONT: In the T.A.M.S. Report.

SENATOR CRANE: Yes. But I'm not positive.

SENATOR DUMONT: Now, does anybody in the audience, and I will have to ask you to ask them through me, if you will, have any questions to be asked of Senator Crane?

Here's a question for you, Senator: When you estimate three years after the passage of the bill for expediting construction of the reservoirs, are you taking into consideration also the time for "due process" litigation by property owners?

SENATOR CRANE: I think any engineering program submitted, Senator, would take that into consideration and, I believe, that if an engineering firm has stated that it would take three years, it will be approximately three years. I wouldn't have any knowledge to refute that statement.

SENATOR DUMONT: Any other questions that anyone desires to have asked of the witness?

EX SENATOR O'MARA: Mr. Chairman, I would like to reserve my right to ask Senator Crane questions at some future time.

SENATOR DUMONT: You have no objection, Senator, to being questioned by Senator O'Mara at some point, do you?

SENATOR CRANE: No.

VOICE FROM AUDIENCE: Mr. Chairman, may I ask a question?

SENATOR DUMONT: Well, let me hear your question and then I'll see if it is O.K. We will have to have your name.

MALCOLM CROOKS: My name is Malcolm Crooks, of the Stony Brook-Millstone Watershed Association. I was wondering, in the comparison of the cost between Delaware River water and Raritan river water, if not the quality should also be taken into consideration; one is of potable quality, I understand, and one is not. One is of raw quality.

SENATOR DUMONT: Now, which do you say is potable and which isn't?

MR. CROOKS: Delaware River water, as I understand, is of potable quality if it is taken into, for instance, Round Valley and is allowed to be stored there.

SENATOR DUMONT: Well, now, are you asking Senator Crane, then, his opinion?

MR. CROOKS: Yes, if that's a justifiable comparison to make.

SENATOR DUMONT: You want his opinion, then, as to the potability of the water from the Raritan River and the Delaware?

MR. CROOKS: And whether that is an element in considering the differential in cost.

SENATOR DUMONT: I think, in all fairness to you, Senator, because you are not an engineer any more than I am - you can do what you want with that question. If you can answer it, fine. If you can't and want to leave it up to some engineering person who is here and is going to testify, that is up to you.

SENATOR CRANE: Well, as I have pointed out, the manner of this bill's construction, it embodies the plan of the Water Resources Advisory Committee based on engineering advice, and I believe that that is a question that those engineers could discuss to a much better extent than I could, and I wouldn't want to prejudice the case one way or the other, because mine is absolutely inexpert testimony.

SENATOR DUMONT: You can ask that question of engineers. They will be on later, I am sure, because the

Commissioner of Conservation and Economic Development has asked to testify today and two of his engineers also follow him.

SENATOR CRANE: I would like to say this, Senator Dumont, that my purpose in testifying today was to set forth for the record my long-standing interest in the Raritan to back up the reasons why it was acceptable for my purposes, perhaps not others, to forward this legislation, to give it an adequate hearing, to see if it would work. I believe it will work, but I believe that the engineering behind it should be defended by engineers.

SENATOR DUMONT: May I have your name, sir? You present a previous question, I believe.

MRS. HUGHEY: I am Ann Hughey, Princeton Township.

SENATOR DUMONT: Now, here is a question from Mrs. VanDyke of the League of Women Voters: Isn't the Supreme Court of the United States likely to ask what New Jersey has done to develop our intra-state water resources before granting diversion rights from the Delaware River and inter-state streams?

Do you want to comment on that?

SENATOR CRANE: I wouldn't know that answer. It would sound plausible to me.

SENATOR DUMONT: Are there any other questions to be asked of Senator Crane?

I guess not, Senator.

The next witness, Mr. William Roach, Executive Secretary of the Planning Board of Somerset County. Mr. Roach is from Somerville.

M R. W I L L I A M E. R O A C H, J R.: Mr.Chairman, Senator Crane, ladies and gentlemen. My name is William E.Roach, Jr. I am the Director of the Somerset County Planning Board. Before making my formal remarks, I would like to request the privilege of supplementing this statement upon detailed examination of the proposed bills which our Planning Board, at this date, has been unable to do. We are speaking today concerning the principles contained in those bills.

SENATOR DUMONT: Do you have a written statement you want to submit?

MR. ROACH: I do, Senator, but I can't submit it to you, and that will be the extent of my formal remarks.

SENATOR DUMONT: And you want to reserve the right to submit another written statement later?

MR. ROACH: Possibly supplement the them upon detailed examination of the legislation.

SENATOR DUMONT: All right. Will you leave a copy then of your statement with our stenographer when you are finished, please?

MR. ROACH: I shall do that.

The Water Supply Committee of the Somerset County Planning Board, after due study and consideration, has unanimously endorsed the proposal to construct two on-river reservoirs in the Raritan River Watershed. The Somerset County

Planning Board has endorsed this recommendation of its Water Supply Committee.

Somerset County ranks as the Number One County in the Raritan Watershed; 88% of its area being in the Watershed and 25% of the Watershed being in the County. Such being the case, we have a vital interest in any water development in the Raritan Valley.

Somerset County is undergoing, and will continue to experience, a tremendous rate of growth. The Regional Plan Association predicts a 132% increase in Som erset's population from 1950 to 1975. Our own estimate for 1956 bears out this 1975 projection, showing a 30% increase in the 6 year period. Much of this growth has been fostered by new industrial development in the area as well as the general influx of population from the built-up urban areas. The advent of 2 new freeways giving direct, high speed, automobile access to Somerset County from the New York - Metropolitan Region will foster and accelerate this population trend.

The greatest portion of Somerset's growth will occur in the municipalities which could readily avail themselves of the water supplies which would be developed by the reservoirs proposed by S-272 and S-273.

This proposal will bring a water supply to an area of the County where most of the municipalities have expressed a desire, through their zoning ordinances, to expand their industrial development. Since a good water supply is essential to most industrial development, this program could enhance these efforts.

In order that this anticipated growth will be properly serviced and become an asset to all concerned, it is imperative that adequate water supplies be developed.

The Somerset County Planning Board wishes to insure that when the water supplies developed by this program are allocated that the growth potential and water needs of Somerset County are not over-looked or neglected. In this respect, guarantees should be incorporated in this legislation to insure that the water needs of rapidly developing Somerset County be assured.

To this end the Somerset County Planning Board is presently conducting a Water Supply Study which will more precisely determine the foreseeable future water needs of the County.

Mr. Chairman, to supplement some of the points I have made, I would like to furnish you with copies of our 1956 Annual Report which contains in greater detail some of the information which I have mentioned here today.

SENATOR DUMONT: Any questions to be asked of Mr. Roach? I have one here, Mr. Roach. As I recall it, your electorate rather overwhelmingly turned down the Chimney Rock Referendum in 1955. Now, I am talking about the electorate in your own County, because that, of course, was where that project would have been located, in your own County. Was it primarily because of the proposed location of that reservoir, or were there other conditions such as the inconvenience to a large number of people, that were factors also?

MR. ROACH: Senator, I was not in the employ of Somerset County, I was with the State of New Jersey when that referendum was on the ballot. I could not speak as to what the local reaction was in Somerset County. Certainly there was the interest on the part of those who would be affected against it, and as I recall it, that proposal was defeated on a state-wide basis, and in some places probably just as severely as in the County of the locale of the proposal. That is not a statement of fact; I think that is so, however.

SENATOR DUMONT: These figures that you quoted, however, about your increase in population anticipated by 1975 were also known as a fact at that time too, were they not?

MR. ROACH: Those estimates were released by Regional Plan, I forget the exact date, Senator, I think it was sometime in '54 so they may have been known.

SENATOR DUMONT: Any questions of the witness? Thank you, Mr. Roach.

MR. ROACH: Thank you.

SENATOR DUMONT: The next is Mr. Russell L. Montney, Executive Secretary of the Planning Board of Middlesex County. Mr. Montney comes from New Brunswick.

MR. RUSSELL L. MONTNEY: Mr. Chairman, my name is Russell L. Montney, Director of the Middlesex County Planning Board. I am here on behalf of the Middlesex County Planning Board and I am also a member of the Middlesex County Water Supply Advisory Committee.

Middlesex County, because it is one of the fastest growing counties in the State of New Jersey, and because approximately 25% of the Raritan River Watershed falls within the

boundary of this County, has been concerned about water supply and with the proper development of the Raritan River for a number of years.

We know that this County will need additional supplies if it is to continue to grow. We have always felt that a considerable portion of these additional water supplies must come from the Raritan River.

The Middlesex County Plannning Board is pleased to support a plan to develop the Raritan River and its tributaries in steps, by a series of small dams, a plan which appears to be economically sound and which seems to justify further serious study to determine its practicability.

We, in Middlesex County, hope that the report of the Advisory Committee and the legislation based thereon will be only the beginning of the Legislature's and Advisory Committee's interest in the development of water supplies for New Jersey.

Still left to be accomplished is a definite plan to make use of the Delaware River, and a comprehensive study of ground water supplies including salt water intrusion into such supplies, to name only two must projects. In each county or smaller areas there may be water supply projects affecting regions which are also a must. For instance, a low level dam across the South River, in Middlesex County, would materially assist the water situation for the industries and others located in the area of the suggested dam. We will need help in planning for such a dam.

SENATOR DUMONT: Do you have a copy of your statement, Mr. Montney?

MR. MONTNEY: Yes.

SENATOR DUMONT: Are there any questions to be asked of Mr. Montney?

EX-SENATOR O'MARA: Mr. Chairman, I assume it will not be necessary for me to reserve the right to submit questions of all witnesses and I would like it completely understood that that is a general request.

SENATOR DUMONT: It is so understood, Senator.

MR. MONTNEY: Mr. Chairman, may I also reserve the right to submit supplemental testimony at a later date?

SENATOR DUMONT: Do you want to submit that orally, or in writing, or both?

MR. MONTNEY: At a later date, in writing.

SENATOR DUMONT: All right. Will you submit a copy of your statement to the secretary, please?

The next witness is Mr. Fred F. Richardson, of New Brunswick. Mr. Richardson.

MR. FRED F. RICHARDSON: Senator Dumont and Senator Crane, for some years last past I have been representing the City of New Brunswick in some water litigation which they have been interested in, but in appearing here today I am appearing, more or less, pro se, because the bills have been so recently introduced that sufficient study has not been made in our community to allow sentiment to crystallize, so what I am saying here today is largely my own personal views.

In the beginning, let me point out that I am for these bills. I am not for the bills in the thought that they are the best possible solutions, but they're workable solutions, and I think the time has arrived in our State when we must

proceed with some solution that's at hand and that is workable. There are, however, some suggestions that I have to make, not in criticism because the work of the Advisory Committee headed by George Smith, from my own community in New Brunswick, the Committee's work has been very well done. Ably sponsored as these bills are by Senator Crane from Union County, I am sure all of us, for and against these bills, must feel gratified that the people who have contributed their services to these bills, have done so in such a fair-minded way. Personally I have great confidence in this Committee and in the Senators, including Senator Dumont, who are handling these bills. And I first point out that the proposals to be submitted to the electorate next November, it seems to me that it is possible to read into that proposal a misconstruction. Now, if there was anything that defeated Chimney Rock more than any other thing in 1955, in my humble judgment, it was the fact that the bills were not thoroughly understood, and I hope that in this next proposal to the electorate that the information that will be disseminated ad interim will be sufficient in quality and in quantity so that everybody will be apprised of just exactly what is proposed to be done.

Now, why I say the proposal is rather indefinite, in Section 24, the proposal indicates you are to vote "yes" or "no" on the single question of whether or not the water supply of New Jersey is to be increased by Spruce Run and Stony Brook. Now, it is perfectly evident that not one pound of water is going to be increased in the water supply of New Jersey through Stony Brook until Stony Brook is constructed, and under this

act Stony Brook is not to be constructed for at least two years, and thereafter, not to be constructed until 50% of the water is contracted for, namely, 20,000,000 gallons per day. It seems to me that this bill, referring to the bond bill, will be advertised, and the information therein contained will be readable to those who care to read it, but there has not been one single line that I have been able to ascertain in the Bond Act itself which shows this limitation as to Stony Brook. In other words, when you're voting on this proposal you get the idea that Stony Brook is being constructed as well as Spruce Run. Now, there is nothing in the Bond Act which will be published prior to election to disabuse anybody's mind, and I think some proportion of our voters might go to the polls with the idea that both these reservoirs are being constructed, where, as a matter of fact, only Spruce Run is being constructed and the land is being acquired at Stony Brook. I think that is something for the Committee to consider, whether or not we shouldn't go forward with the proper definition of what people are voting on, so there may not be any misapprehension.

Secondly, another suggestion that I have, and these are merely suggestions, the Senator from Union County, Bob Crane, has spoken about changing the standards now embraced in this present proposed bill, and to add thereto the standards now in the Canal Act, namely, "to conserve public interest", that is how the Canal Act reads, and it is a very vital amendment that I think should be made. But in addition thereto, let me point this out: this Supplement, 272, is to Title 58 of the Water Act and that's the parent Water Act of this State and

has been for a good many years. The Canal Act, however, is Title 13, and this supplement deals with Title 58.

Now, the standard in Title 58 is very different from the standard used in the Canal Act, Title 13. The Canal Act simply says, "to conserve public interests" and "shall be sold at just and reasonable terms, such as may be agreed upon by the department." In Title 58, however, there is a vital standard that has been left out of this bill, and that standard is this, that the equities of the municipalities affected by this water allocation must be considered. Now, there is nothing in this proposed legislation that deals with the equities of municipalities, meaning the rights that the municipalities adjacent to this water supply naturally have.

Water supply is a public problem, and municipalities must necessarily have preference. They must come first. So much so, that in 1944, when this Legislature passed the original canal act, they wrote in there as one of the preambles of the act that the adjacent areas to the canal would have priority and preference for industrial supply of water from the canal. Now, that has not been followed very religiously, but that was written into the 1944 act and, in my opinion, is still law. But whether it is or not, the intent was to give the adjacent municipalities the preference for the water as a source of industrial supply or, in case they could treat the supply, to so treat it as to make it potable.

I think it might be well for the Committee to

consider whether they shouldn't strengthen the standard which is now in Title 58, because if that is left out, and this is a supplement to Title 58, it is going to weaken the entire administration of Title 58, which, as I say, is the parent act.

A good deal of this language has been borrowed bodily, as Senator Crane has well said, from the Canal Act, but they are entirely different acts, and this point that I raise has been recently raised in hearings before the Department and I think is a matter of very serious concern and should have the further consideration of this Committee.

I raise a further question, and that is in these definitions, I note that practically all corporations and persons and individual suppliers are eligible to purchase this water. The question has come up in my mind, however, whether or not that includes water utility companies. Many of these water utility companies are chartered companies and my understanding of the definition of the word "corporation" is that it means those who have complied with the Business Corporation Act of 1898. Now, many of these companies have been chartered long prior to 1898 and do not fit within the four walls of that definition. In addition to which, these utility companies are subject to regulation by the Public Utility Commission, which can set aside any contract that these water companies enter into that may be inimical to public policy. So you have two controlling boards. One is the department making the contract, and the other the Utility Board

which might decide in a certain case that the contract should or should not be enforced. I think there is a little discrepancy there that might be cleaned up by way of a definition.

I notice that Senator Crane has remarked about the Governor signing these contracts, and it was to be my suggestion that that provision which is now part of the Canal Act be continued in this present legislation. I don't know that it has ever been called to particular necessity for the effective intervention of the Governor, but it's a salutary provision that should be in there and I think the Senator is well advised to amend this bill to continue that regulation.

There's another question about the title and, as lawyers always do try to pick loopholes in things, I was going to suggest that perhaps the title might be strengthened by including the words "and to make the sale thereof." It nows simply provides the power to acquire and construct, but it makes no reference to the sale, unless we are to assume that, in reciting the powers of the department, that includes the power of sale. Personally, I think it does, but there is a legal objection that can be raised and it might be well for the drafter of the bill to consider whether or not the title is in the shape that it might be.

There is another provision in there that I don't quite understand and that is the provision which requires the entire gross revenue of the sale of the canal water to be appropriated. If that means that the proceeds from the

sale of canal water is to be taken away from the present holders and put in a current fund, I'm against that and I think it ought to be amended. The canal is just about now paying its way. I think there is a small surplus, and I think they need every cent that they can get by way of revenue to pay their help and to pay their operating expenses. I think that these funds should be kept separate and not simply mingled into one common pot. So I suggest that that be given some consideration.

I also note that there is to be general taxation for any deficit. I believe that there should not be any general taxation. I believe that these projects, Spruce Run and Stoney Brook and subsequent projects, were meant to be self-liquidating and stand on their own feet, and I don't believe that we should go forward now with the thought that we are going to put general taxation on the body politic of this State for these purposes. Now, maybe that is only pro forma for bond people; I don't know, but it seems to me that after the first few years there will be enough money made in these projects to see that they are self-liquidating. And I am against any reference to general taxation because it is those sort of references that the public gets in mind there is going to be another increase in taxation, and I don't think it's necessary as a selling proposition to put it over in this instance.

However, these suggestions, whether they are meritorious or not, are not my reason for being here today. My main reason for being here today is because I think a

very serious mistake is being made in deferring the construction of Stony Brook Reservoir. I can fully sympathize with the people who are in objection here today and who are much closer to Stony Brook than I am in the matter of distance, but Middlesex County does have a real stake in the construction of Stony Brook at this time simultaneously with the construction of Spruce Run. Our two largest and most rapidly growing sections in our county, in South Middlesex, are North Brunswick and South Brunswick. And they are growing at a rate of beyond 50 per cent, ratio 50 per cent. While I am sorry to say it, in the northern part of our county, in and around my section in New Brunswick and north into Highland Park, with the exception possibly of Edison Township and with the exception of Woodbridge Township, our growth is reasonably stabilized. The reason is that there is relatively little undeveloped area. But in the southern end of our county, in North Brunswick and South Brunswick, there is a potential for industrial development second to nowhere in the entire East. They have just located Johnson & Johnson's new plant in North Brunswick Township, and North Brunswick and South Brunswick are very adjacent to the Millstone River.

A great many of us down our way feel that there is a very great demand for water from not only North and South Brunswick Township but from Mercer County itself and that there should be immediately constructed, simultaneously with Spruce Run, this Stony Brook Reservoir. It will do us not a bit of good simply to acquire this land and then stop, because there is a prohibition in the bill itself

that nothing shall be done. It's a mandatory prohibition preventing any progress in the construction for two years at least, and thereafter until we are guaranteed by contract 20 million gallons a day. I think that amount is very close to being available even now in these two areas that I speak of. I know that there is pending now before the Canal Commission an application on the part of North Brunswick Township for 13-1/2 million gallons a day. I know New Brunswick has an application for 7-1/2 million gallons a day. I know East Brunswick has an application for 7 million gallons a day. And to allow Spruce Run to be completed without Stony Brook would be deferring Stony Brook against the time when, after four or five or six years go by, there may be opposition come up that will prevent Stony Brook from ever being constructed.

Knowing something of the background and the history of the water movements in this State, I know that delay is almost synonymous with water legislation and to procrastinate and to delay is to defeat. We need assurance that this reservoir will be constructed now. It will help our development and it will not only provide water when it's constructed but will attract new industries now that will feel assured of a source of supply.

Mr. Montney has just testified from our county and he didn't say what he might have said, that our county, by prediction, in 1975 will be the second largest county in the State of New Jersey. We think that we merit the amendment of this bill to include Stony Brook Reservoir

construction now.

I might point out that I didn't have these bills until last night, but I read the report of the recommendations and I didn't think that in the recommendations themselves the Committee went so far as to suggest that there should be no construction of Stony Brook within two years. I thought it was being left to the Department of Conservation and Development and the Water Policy Commission to make that determination and that if the water was needed now, if there was a present demand for Stony Brook water as well as the other water, Stony Brook should go forward at the same time as Spruce Run.

There are one or two other points I would like to comment on. I do hope that as badly as we may need water for consuming purposes that we will not slight the necessity of seeing that adequate water is put in the river, in the flow stream of that river, to take care of its proper development. One of the difficulties of the Raritan River - I was born alongside the Raritan River. I have lived there all my life and I know something about it. The industrial pollution has been taking such a hold on that river because of the shrinkage of volume of water. We need to bring the water, as the Senator from Union County said, to about a billion gallons a day. My information is it is somewhere around 800 million gallons a day flow, on the average that is, but it goes down to where sometimes it is not over 40 million gallons a day. It's a mere trickle at times, and the industrial pollution has increased to such an extent and

the volume has decreased and shrunk to such an extent that all fish life has gone out of the river for years and it's not fit even to boat on. We need plenty of water, and I am sure under this act that the amount of water that is going to be allowed this stream will bring it back to the pristine usefulness and beauty that it always enjoyed as queen of the waters - the good old Raritan.

I make these suggestions and close with this note of appreciation of the fine work that I think the people who have been identified with these bills have done, and of the appreciation we have for this hearing today; I even appreciate the opposition of my good friend Senator O'Mara from Hudson County because I believe that opposition to these things do contribute an important viewpoint, and I hope that we can work this situation out so that it will be to the best interest of the State.

I would like to say this about the Delaware River, if I may: There has been rendered a decision which limits the diversion of New Jersey to 100 million gallons a day by the United States Supreme Court. That amount is a fixed amount. We are getting so we don't have very much water left in the canal and it will only be a matter of a year or two at the very outside when there is no more available water in the canal. I think the canal flow is around 75 million gallons a day. I think we have contracted already for over 40 million gallons a day; I think that the present pending applications are at least 40 million gallons a day or pretty close to it. Now, whether we can ever get

any Delaware River water or not, in addition to the hundred thousand gallon per day limit, I don't know, but it seems to me that we shouldn't wait on the Delaware River situation; we should go forward and stand on our own feet. We've got this water in our State here. It's not a question of the amount of water; it's a question of distribution and the use and bringing the water to the proper points where it can be used. We can stand up on our own feet and there is no water any better than the Raritan River water when we get rid of some of this pollution that exists. And in connection with that, let me say that Middlesex County will get rid of the pollution at the end of this year, 1957, when we finish up our joint sewer. We would have gotten rid of it years ago if it hadn't been for the industries around Bound Brook. And we don't propose now, having spent this money on the sewerage system, to see this pollution continue. The reason I say that Raritan River water is as good a water as there is in this country is that New Brunswick saw its beginning along the river, with its industries locating there because of the quality of the water. At one time it was the finest water anywhere for industrial purposes.

We have some rights in that water, too, for potable purposes, the City of New Brunswick. We purchased some rights years ago. We are tremendously interested in seeing that the river is returned to its proper usage and we don't intend, if we can stop it, to permit these upper riparian owners who have certain common law rights to use the water and return it undiminished, to also return it in a polluted condition. It might be advisable to legislate

against those rights to the extent of putting more teeth in the law than as it presently stands. There is a penalty for pollution but it doesn't get anybody anywhere except to hire a lawyer and have a law suit.

Now, these suggestions I make in the best of good faith and I hope that the Committee will find, when the hearing is completed, that some of these suggestions that have been made by interested parties will have some merit.

Thank you very much.

SENATOR DUMONT: Mr. Richardson, before you go, please, we may have a couple of questions of you.

In the first place, isn't it true that the United States Supreme Court decree of 1954, which made available to New Jersey legally 100 million gallons per day, said that New Jersey could have that amount of water out of the Delaware River without returning any of it by compensating releases. My understanding was that they did not say that New Jersey could not take any more water than that out of the Delaware providing we were willing to provide compensating releases.

MR. RICHARDSON: You are entirely right, Senator. That's exactly what they did say.

SENATOR DUMONT: Senator Crane?

SENATOR CRANE: I wanted to ask you, Mr. Richardson, if you are aware that the subject of taxation, to which you spoke, and in fact the last two general provisions of revenue in the bond act, in other words, in Senate Bill No. 272, paragraph 21, subsections (c) and (d) - (c) being

"any other available funds in the State treasury," and (d) "should all other sources of revenue be insufficient, the proceeds of an annual State tax ad valorem on all taxable real and personal property, to be assessed, levied and collected as hereinafter provided"- are you aware, sir, that those two provisions are general standards in all bond acts?

MR. RICHARDSON: I am perfectly aware of that, Senator, and it may be that they will have to go in this bill to sell these bonds. My only thought was that this project will sell itself as being a self-liquidating project, and if we could leave that provision out it would save a lot of apprehension on the part of some taxpayers who think they are going to be hit twice - to buy this water and also to pay taxes later on for any deficits.

SENATOR CRANE: Well, I'll admit that my hackles went up when I read it, but I was told when I questioned it that it was a general provision of a bond act and it was for the purpose of actually selling the bonds.

MR. RICHARDSON: You know, Senator, some years ago, for ten years as a matter of fact, I was County Counsel of Middlesex County and I had some experience with bond legislation, and I know that these bond lawyers would take your right eye and your mother's wedding ring if they could get it.

SENATOR CRANE: This is a hearing on water supply, sir.

The other thing that I did want to bring to your

attention, Mr. Richardson, was that, as I understand it, Senate Bills Nos. 272 and 273, which are termed companion legislation - 272 is the bond act to appropriate the money, and 273 is the act spelling out how it is to be spent; in other words, you cannot spell out how to spend it without first appropriating it, and therefore your questioning as to the provision which specifies the delayed construction of Stony Brook, I would like to say that that is in the second act, Senate No. 273, in paragraph 4 (b).

MR. RICHARDSON: In the bond act?

SENATOR CRANE: No. That's the second bill. Senate Bill No. 273, which is called the "On-River Water Supply Law." That which you alluded to about the delayed construction is spelled out in paragraph 4 (b).

MR. RICHARDSON: I saw that. But my point, Senator, was this, that the county clerk is only going to publish the bond act as notice of the election, and there is nothing in the bond act which would be published which will advise any taxpayer of the delayed construction of Stony Brook. While it's true, it is in the other bill, that other bill is not to be published.

SENATOR DUMONT: I would like to note the presence of Senator Wesley Lance of Hunterdon County to my left, who, while he is not a member of this Committee, as you can easily understand, has a very deep interest in these bills, particularly in the Spruce Run project.

Senator Lance, have you any questions?

SENATOR LANCE: No, sir.

SENATOR DUMONT: Are there any other questions to be asked of the witness?

Just one more, Mr. Richardson. You estimate that 75 million gallons per day are being taken through the Delaware and Raritan Canal now out of the Delaware River?

MR. RICHARDSON: Yes, I estimate that.

SENATOR DUMONT: So that there are 25 million gallons available still from the Delaware River for which New Jersey would not have to return any by way of compensating release; is that correct?

MR. RICHARDSON: Well, I think that is already applied for, Senator. I think it can be pretty well said that it is practically allocated now; in other words, while we have only sold out of the canal some 40 million gallons a day so far, there are applications pending for almost 40 million more, and those applications in all likelihood will be granted to a very large extent so that we can really say there is relatively little left by way of available supply except what would be, as you mentioned, between 75 and 100; in other words, it might be 25 million gallons a day more that you could get in the canal from the Delaware. But, of course, you have got to take into consideration that Round Valley has to be filled from the Delaware, according to legislation.

SENATOR DUMONT: Well, can you take physically 25 million gallons per day more through the Delaware and Raritan Canal without rehabiliating the canal?

MR. RICHARDSON: No, you couldn't. The banks won't sustain it, in my judgment. That's not an engineering

statement.

SENATOR DUMONT: Well, even while this additional water has been applied for, there isn't any way of getting it through the canal at the present time; is that correct?

MR. RICHARDSON: That's correct, Senator.

SENATOR LANCE: Senator Dumont, I wonder if this witness knows how much the State collects in revenues from the Delaware & Raritan Canal per year.

MR. RICHARDSON: I have the figures somewhere, Senator Lance, but I don't have them immediately available. I can say, as I said a moment ago, they are doing a little better than breaking even, between their operating expense and their income. They are making a small profit.

SENATOR DUMONT: Are there any further questions?

Here's a question by Mr. Crooks: How would the two dams be financed if they were constructed concurrently? Evidently there is probably not the sale for the total amount of water produced by these reservoirs until some years hence. Do you have any comment to make about that?

MR. RICHARDSON: I could only say this: The present bill provides for a bond issue of $14,000,000; $9,000,000 of that is to go to Spruce Run for the acquisition, development and construction work; $5,000,000 is to go to Stony Brook for the acquisition of the property. It will cost another $5,000,000 to construct the reservoir itself at Stony Brook, so that, if my suggestion finds any merit with the Committee, they will have to increase the bond issue from $14,000,000 to $19,000,000, in order to provide sufficient funds for the construction of both dams at the

Spruce Run is being constructed at the present time is because certain people, including the Elizabethtown Water Company, have guaranteed to take some water from the Spruce Run Reservoir. Well, I unhesitatingly state that the Elizabethtown Water Company would take just as much water from the Stony Brook Dam under the adverse circumstance; if Stony Brook were the only one to be constructed, I am sure the Elizabethtown Water Company would be in here with a demand for water from that source, because they are a great growing company, one of the most successful water companies in the State; they now have a monopoly of water in Union County and in portions of Middlesex. I might state right here for the benefit of the Committee that they are a competitor of ours that I think is being put in an improper position, a business position where they can move in on our customers in New Brunswick and take unfair advantage of us. They have already taken two customers, two of our best customers away in the last year or so. I don't propose to sit idly by and let them walk in and take any more customers except over my dead body.

SENATOR DUMONT: I think that the latter is something that you probably going to have to work out with the other water company, Mr. Richardson.

Are there any further questions to be asked of Mr. Richardson?

MR. CROOKS: May I clarify that question a little bit?

SENATOR DUMONT: Yes, sir.

MR. CROOKS: The point that I wanted to bring out,

sir, is that there must be a revenue of about $700,000 a year from the sale of water coming from these reservoirs, or being responsible by these reservoirs, in order to amortize the bond issue and to pay the interest. If all 80,000,000 gallons were being produced and sold, that would amount to about $730,000 a year. In other words, if they are to be built simultaneously, there should be assurance, it seems to me, that nearly all of the 80 million gallons per day is sold before you can reasonably expect that the bonds could be amortized safely, with no way in which the other items under that section (c), (d) and (e) in which the taxpayers, and so forth, would be indebted to carry part of the burden.

SENATOR DUMONT: You are not asking a question, Mr. Crooks. Isn't that right?

MR. CROOKS: Well, I was clarifying that point, because I didn't think he answered my question. In other words, my question then is: Do you feel that there is presently or within the next two or three years the sale of nearly the 80 million gallons?

MR. RICHARDSON: I do, unhesitatingly, feel that way.

MR. CROOKS: Thank you.

SENATOR DUMONT: Senator Crane?

SENATOR CRANE: Mr. Richardson, you brought up a point that I have frequently heard in recent days, that it will cost $9,000,000 to acquire and build Spruce Run and $5,000,000 to acquire Stony Brook, and $5,000,000 to construct it at a later date. Where did you get those

figures, sir?

MR. RICHARDSON: I think I got those, Senator, out of the Advisory Committee Report. I couldn't be sure, but I think it is somewhere in there.

SENATOR CRANE: Well, just using the Whitman, Requardt & Associates Exhibit D - I don't say this in criticism; I just say this in clarification, sir - it says, "the opinion of the Committee and ourselves that the State should now purchase the land for two on-river reservoir sites in the Raritan River Basin and should immediately construct one dam and reservoir at Spruce Run, all at a total cost of about $9,000,000.." Then it says that the second dam and reservoir, Stony Brook, can be constructed when needed at a cost of about $5,000,000, if construction was not unduly delayed.

I would like to point out that in Chapter 2, page 12, of T.A.M.S., giving the statistics on those on-river basins, the cost of such a dam at Stony Brook could not be that much, nor could the two combined cost as much as $19,000,000, according to the statistics.

MR. RICHARDSON: Well, that is very pleasant news. But even if it cost $19,000,000, it's worth it, in my judgment.

SENATOR DUMONT: Are there any further questions?

The next witness will be Mr. George F. Smith, Chairman of the New Jersey Water Resources Advisory Committee, and President of Johnson and Johnson. Mr. Smith.

G E O R G E F. S M I T H: Mr. Chairman, Senator Crane, Senator Lance, ladies and gentlemen: Mr. Chairman, I would like to add, if I can, a little clarification to the discussion that just took place.

It is true, as Senator Crane said, that the estimated cost of the acquisition of both sites and the building of Spruce Run is $9,000,000. It is also true that the Committee has provided, in its recommendation totalling $14,000,000 the other $5,000,000 for the building of Stony Brook. I can add that at the present moment, if Stony Brook were built now at the present day cost, the expense of that reservoir would be closer to $4,000,000, and what we have tried to do is to provide adequate reserves to take care of all the contingencies there may be in the future and the possibility there may be delays. In addition to some rather liberal estimates we've made, we have in the $14,000,000 proposed bond issue a substantial contingency reserve to avoid any unpleasant headaches that may come from delay or other causes.

I'd like also to comment in response to the young man as to the potability of the water that might be in the Round Valley Reservoir. Others can speak with more authority than I but I think you will find in talking to the engineers that the water from Round Valley Reservoir will not be potable, that it will have to be treated just as would water from Spruce Run or Stony Brook for drinking or such purposes.

Finally, for a little further clarification, while the Committee feels very strongly that we as citizens are fortunate that the Legislature has moved to acquire Round Valley and we believe very strongly that Round Valley in the future will be a very important part of the resources of this State, as it stands now there is, of course, a question about how long it will be before Delaware River water is available. Obviously, it is not going to be early.

Now, on the question you raised, sir, about the costs: At the present-day costs, it would require $33,000,000 to build the Round Valley Reservoir, to construct 13.4 miles to Frenchtown, which is the connection point that we visualize, and the initial 240,000,000 gallons a day pumping station. That is the first stage - which would provide 120 million gallons a day; that is, if and when the present study of the United States Corps of Army Engineers is completed, if and when we get Supreme Court approval, and if and when we can get agreement between the states.

Let me re-emphasize that we believe very strongly this is a very valuable project, but not one that is immediately available and is not now or ever will be, in the present plans, a source of potable water without subsequent treatment.

One other point that might be interesting is that because of the fact that Round Valley Reservoir water will have to be pumped, an estimated cost of that water would be $55.00 a million gallons against the $25.00 a million gallons that is contemplated for the Committee's recommendation.

The support the Committee has had of its recommendations

throughout the State has been encouraging. One of the things that we have all experienced in this thing called public service is that there are well-meaning and frequently very helpful opponents and we welcome that sort of inquiry into our determination. It is nonetheless encouraging to have what appears to be widespread support. It is especially pleasing that the Somerset County and the Middlesex County Planning Boards have gone on record in favor of the proposals. I call your attention to the fact that this is particularly significant because these counties have previously opposed the exporting of water from the Valley because the assuring of first fulfilling the local needs was lacking. The Committee's plan provides for Raritan Valley needs and at the same time helps toward meeting the needs of northeastern New Jersey.

In fact, the only opposition of which I know comes from some of the people in the Princeton-Pennington area. Again let me say that I don't object to the opposition. I am particularly pleased that my friend Senator O'Mara is involved, because I am sure, through the discussions that will take place, we will arrive at a sound solution that will be advantageous not only to the area but to the rest of the State. But, as I say, the only opposition which I know is from that area. I believe that this opposition is primarily because of a lack of understanding. My associates and I will be very glad to answer the questions that will be raised either today or in a subsequent meeting.

Now, anticipating some of the questions, a few of which have come to my notice, and those which I think would be particularly important, let me summarize in this way:

We believe that first consideration must and will be given to the present and the future needs of the municipalities

in that area. We are privately told that thoughtful people in those communities are worried about impending water shortages. Moreover, a person from that area who should know told me that a top-grade industrial concern purchased 400 acres of land in that section and then decided not to proceed with the proposed plant because there was no assurance of an adequate water supply.

There has been speculation that roads in the reservoir area would be summarily cut off and no alternatives provided. This, of course, would be ridiculous and, in fact, our reservoir cost estimates include provision for causeways or bridges to maintain all principal roads.

It has been said that in summertime the reservoirs would become "mud flats." The fact is that the average maximum fall in the reservoir water level would be 4 to 5 feet. Only in times of extreme drought would the drop be materially greater than that. In those circumstances, of course, river beds and streams also would be at low levels.

Perhaps the most disturbing allegation that has come to me as an industrialist is that this plan, the Committee's plan, is primarily for the benefit of industry. They see something suspicious, these people who make this allegation, in the fact that much of the funds supporting our work has come from industry. In respect to the latter, I shall say only that we should be grateful to industrial concerns that have been a major source of support for almost every community need, from hospitals and other institutions to taxes for our schools. The public spirit of the modern corporation is too well known to need any elaboration from me.

As to the charge of selfish interest by industrial concerns, let me say that it has been inspiring to me to receive contributions from companies who can get little or no benefit from this or the forthcoming projects, except the satisfaction of discharging their obligations to the public at large.

Let me say here for the record that Johnson & Johnson has no water shortage and anticipates none. Our needs are fully covered by a long-term contract for Delaware and Raritan Canal water and through arrangements with the municipalities in which our plants are located. We expect no direct benefits from the present plan nor from the further projects that the Committee has under underway. Strange as it may seem to some, there are people crazy enough to work without thought of personal gain and solely for the good of their municipalities, their counties and their State. The New Jersey Water Resources Advisory Committee consists of such men.

As you know, the Committee includes representatives of industry, labor, agriculture, and fish and game. When we first were appointed by Commissioner McLean, we discovered that the Department had no budget for the work of the Committee. I thought then, probably a little optimistically-- I offered to raise the money from private sources, and it may interest you gentlemen, and the people who are gathered here, to know that we have received over $50,000, and no contribution has been greater than $5,000. Those contributions have come from a wide range of people, including the AFL-CIO, for example, but largely, as I said before, from industry.

The Committee has studied on-river and underground water sources. On-river studies have been focused on the Raritan Valley, the largest, undeveloped water resource convenient to the areas of greatest meed, namely, the Raritan Valley, and the northeastern metropolitan counties. Northeast New Jersey is now approaching the maximum of its available water resources.

It is an unfortunate fact that underground water resources, the engineers use the term "ground water", will require years of studies, test wells and observation wells to devise a practical plan to develop them and to protect them. There appears to be no way to find the necessary facts in a short space of time. Moreover, the ground-water sources are abundant in the southern and southeastern parts of the State but not of equal significance in the central and northern parts of New Jersey. The Committee is studying what can be done to accelerate the ground-water program, and will report on this later in the year.

Fortunately there have been a great many studies of surface water resources and these potential water opportunities are relatively easy to evaluate. Further, they provide a quick and proven opportunity for additional water supplies.

The first Report of Committee recommending Spruce Run and Stony Brook Reservoirs on Raritan tributaries will provide sufficient additional water to meet the apparent needs of central and northeastern New Jersey for 7 to 10 years at the present rate of growth. And let us keep in our mind that all of these projections have found to be wanting, that almost invariably what appears to be a 7 to 10 year protection, proves to be a protection for years shorter than for that period.

As a matter of fact, the Committee's next report which we expect to present in six months, will identify additional reservoirs in the Raritan Valley capable of providing further water supplies to meet the needs until 1975 on the basis of the present growth pattern.

In addition to a supply of 80,000,000 gallons a day for sale, the Spruce Run and Stony Brook Reservoirs will increase the guaranteed minimum flow at the confluence of the Raritan and Millstone Rivers from 45,000,000 gallons a day to 100,000,000 gallons a day, and let me say parenthetically, as Mr. Richardson knows, that while we say 45,000,000 gallons a day as the present minimum, that applied in 1930 for example, actually on some days it was as low as 5,000,000 a day.

The recommended project is self-supporting and self-liquidating. It has been the concept of the Committee from the beginning that this should not be a burden upon the taxpayer, that it should, in fact, be self-supporting and self-liquidating, and it is with conservatism, I believe, estimated to be so, even at the suggested low price of $25 per million gallons. After all the bonds on the two reservoirs are retired, the State will enjoy a clear profit on these two reservoirs of $700,000 a year.

The new water supplies would be paid for only by those who use the water. There would be no cost to any one who did not use the water.

The Department of Conservation and Economic Development should administer this project. And this seems sensible because it nows administers the Delaware and Raritan Canal, it has a

staff and the experience, and one dividend in this project is the fact that it is possible to transfer water from the Millstone and from the Raritan to the Delaware and Raritan Canal at that point.

It is our firm belief that the municipalities and the industries in the immediate vicinity of the reservoirs should have prior rights. Specifically we believe that they should be given the first opportunity to contract for their present and their future needs, and I feel sure that Commissioner McLean has the same point of view. Beyond this, of course, all the people along the 59 miles of the Millstone and the South Branch, downstream from the reservoirs, will have first access to the increased flow.

First consideration, of course, must be given to potable needs. Agricultural and industrial requirements must follow, but fortunately, if we do not procrastinate, there will be enough for all.

Thank you very much.

SENATOR DUMONT: Are there any questions of Mr. Smith? Senator O'Mara?

EX SENATOR O'MARA: I would, of course, like to reserve the right to submit questions to Mr. Smith at a future time, but I would like to submit this one question. It was addressed to Mr. Richardson but he did not have the information available. Perhaps Mr. Smith has.

SENATOR DUMONT: Mr. Smith, do you know how much revenue the Delaware and Raritan Canal produces?

MR. SMITH: No, I do not know. The Department of

Conservation and Economic Development administers that project and I am sure that others who will follow can give you that precise information.

SENATOR LANCE: Is it correct that the answer is about $100,000 a year?

MR. SMITH: I don't recall, Senator.

SENATOR DUMONT: I have some questions here from Mrs. Hughey, Mr. Smith. How do you explain or reconcile the language on pages 3 and 4 of your Committee's Report with your statements today on the cost of the reservoir projects?

MR. SMITH: I don't know what she is talking about particularly, but- the last paragraph?

SENATOR DUMONT: Mrs. Hughey, would you care to elaborate on that a moment?

MRS. HUGHEY: There seem to be so many contradictions on the cost. On page 3, I read, "The Committee recommends that $14,000,000 be authorized for the purchase of two reservoir sites, at Spruce Run and Stony Brook." That would seem to indicate that the $14,000,000 is to be authorized purely for the purchase. Then it says, at the bottom of page 3 and on the next page: "The sale of bonds required for construction of the Stony Brook Reservoir should be delayed until the funds are needed."

Further down the page it says, "How should the initial $14,000,000 be provided?" So it would seem that the cost of the reservoir at Stony Brook would not be included in the $14,000,000 from the inference of this language here.

MR. SMITH: I thought this was what the young lady was referring to, because this has been a source of annoyance to me. As everyone knows who has had anything to do with printed material, there are errors that creep in. This is the only one of significance that I know of. The $14,000,000, as I said before and as is emphasized elsewhere in the Report, is for the cost of the two reservoirs and the two reservoir sites. And this is an error.

MRS. HUGHEY: Thank you. Perhaps that also clears up the confusion of the gentleman who preceded you.

SENATOR DUMONT: I'm sorry - actually, Mrs. Hughey had written out these quotations on here, but I thought that was another question. But she has explained it by clarifying further.

MR. SMITH: In all places in the report except this particular paragraph, the facts are given correctly.

MRS. HUGHEY: May I ask or suggest, then, that an errata sheet be provided for people who have this report?

MR. SMITH: We shall do so.

SENATOR DUMONT: Any questions? Senator Lance?

SENATOR LANCE: This is not my question but someone passed it up.

SENATOR DUMONT: The question is directed to you, Mr. Smith. Who is asking this question? Mr. Anthony Hauck?

MR. HAUCK: Yes, sir.

SENATOR DUMONT: (Reading) Isn't it true that there are now large industries along the Raritan taking water from the river by riparian rights that will be helped

by the plan and who will receive more water free, particularly in dry times?

MR. SMITH: Well, it could be, although I find myself agreeing with Mr. Richardson that, while the law does not now so provide, I believe that the Legislature should give consideration to a charge for the improvement that will take place in the river or in the stream. There may be such, but that does not happen to include my company.

SENATOR DUMONT: Anything further, Mr. Hauck?

MR. HAUCK: No. Thank you.

SENATOR DUMONT: Here is another one, Mr. Smith:

How many miles of road, how many bridges, and the total cost allowed for this part of the project are included in the figure of $14,000,000?

MR. SMITH: One thing that puzzles me is the failure on the part of so many well-meaning people to realize that the precise outline of each reservoir cannot be determined until after the six months of engineering that will precede construction. The cost estimates are, we think, liberal, but what the line will be, what the cost will be, what the property taking will be, and what the roads will be must await those engineering determinations. We have made, we think, liberal allowance for the utmost.

SENATOR DUMONT: By "liberal," do you care to comment on-

MR. SMITH: No, I don't recall.

SENATOR DUMONT: Who asked that question? Will you give me your name, please?

MR. LAMB: Mr. Lamb of Princeton.

SENATOR DUMONT: Mr. Lamb, do you want to ask anything further?

MR. LAMB: I believe Mr. Smith made a specific statement in his testimony about allowance being made for the highway problem.

MR. SMITH: There is a figure and I don't recall it. Let me remind you again that we have in various parts of our estimate reserves and then on top of that we have a contingency reserve to take care of unexpected things. As a matter of fact, the question of what roads will be replaced with causeways or bridges will be determ ined in cooperation with the municipal and the county engineers, as well as the State Highway Department.

SENATOR DUMONT: You can reserve the right, Mr. Lamb, to ask additional questions later on. It may be that the engineering testimony will help to answer your questions.

Anything else?

Mr. Smith, you mentioned that the cost would be approximately $33,000,000, as I recall it, to construct the Round Valley Reservoir and dam and to construct also a pipe line or tunnel from approximately - where is it, Frenchtown?

MR. SMITH: Yes - 13.4-

SENATOR DUMONT: And pumping station.

MR. SMITH: That's right.

SENATOR DUMONT: Now, did you get into any estimate of the cost to New Jersey, bearing in mind the 30 per cent present restriction in the legislation of 1953, that is, that New Jersey could not get more than 30 per cent of the total water supplied by the Wallpack Bend Dam if it paid up to 30 per cent of the cost? Did you get into any estimate of the figures that an on-river dam in the Delaware would cost New Jersey?

MR. SMITH: Thanks for reminding me, Mr. Chairman, of the fact that I failed to make reference to the point you are now raising. In our report we say, "In addition, the State would have to pay its share of the cost of a reservoir on the Delaware to provide compensating water," and I believe that Mr. Shanklin or other engineers can give you the figure you are asking for.

SENATOR DUMONT: Thank you. Senator Lance?

SENATOR LANCE: Mr. Smith, I would like to see if I can get the correct breakdown on the cost of the two reservoirs both as to land and construction. Now, on Spruce Run, what would the land cost?

MR. SMITH: My recollection of the cost of the land was in the neighborhood of $2,000,000.

SENATOR LANCE: And what was the construction?

MR. SMITH: It was estimated to be, as I recall it, $4,000,000.

SENATOR LANCE: Now, on the Stony Brook proposal, what would be the cost of acquisition of land?

MR. SMITH: As I recall, the figure is two million eight.

SENATOR LANCE: And would would it cost bo build Stony Brook?

MR. SMITH: Well, I'm talking off-the-cuff here. I've said two and four and six, and I've said two-eight. That's about right - two-eight. That allows, using those figures, for $5,200,000 for the reservoir, which, I remind you, is higher than it would cost to build it today, anticipating increases in construction cost.

SENATOR LANCE: It would cost two million eight to acquire Stony Brook, and what would it cost to build it?

MR. SMITH: Taking $14,000,000 - if it costs today $4,000,000, we are providing $5,000,000 in our figures.

SENATOR LANCE: Now, one more question, Mr. Smith: If the present legislation were amended to permit Round Valley to use Raritan River waters as the source, would your Committee still advocate the Spruce Run project?

MR. SMITH: We have, Senator Lance, in our Report - I think you will find it on page 21 - a plan for a limited use of Round Valley Reservoir with Raritan River water. I would rather have the engineers answer your question but it's my impression that the capacity of the Round Valley Reservoir could not be used, utilized or available to the full with Raritan River water alone, that Delaware River water would have to be used to have the maximum use of it.

SENATOR LANCE: What do your engineers estimate that you could take out of the Raritan for Round Valley, assuming the Spruce Run Reservoir were a fact? I am talking m.g.d's now.

MR. SMITH: I don't find it offhand, Senator Lance, but my recollection is there could be 40 to 50 million gallons a day yield- this is subject to a look later at the facts - without interfering with the capacity of Spruce Run, which, of course, would be directly affected or the streams or rivers below. That, incidentally, is what we characterize as Stage A as to this figure and would represent a cost of $21,000,000 to do that. That again is because of the pipe-line requirement.

SENATOR DUMONT: Did you study the possibility of using the Ken Lockwood Gorge in Hunterdon County as an alternate to Spruce Run?

MR. SMITH: I don't recall, Mr. Chairman. We studied so many reservoirs. I don't recall that particular one. There are, after all, a limited number of reservoir sites and there are four obviously desirable ones.

Senator Crane?

SENATOR CRANE: I would just like to say one thing, Senator Dumont. We have some people here who are not offering expert testimony but whose testimony is of value, as you see, but we do have available the engineers who served the Water Resources Advisory Committee, and I think that rather than asking these complex questions of some of the witnesses, the right be reserved to ask them directly of the engineers because they can perhaps express them more succinctly. That's Mr. Roy H. Ritter, who is a partner of Whitman, Requardt & Associates of Baltimore, and Mr. Jack Graham, who is a partner of Leggette, Brashears & Graham, New York. So I think it might be a little bit more helpful to the hearing.

SENATOR DUMONT: I think, too, that we would be remiss here, Mr. Smith, if, regardless of the fact, of course, that there is opposition to the plan as outlined in the proposal of your Committee, we did not comment on the work you have done. I think I can safely say that we appreciate the diligence and the capacities and all the time and effort that your Committee has put into this work as a service to the State and to the counties and municipalities involved. Whether there is agreement with the report or not is beside the point. At least you have done all this work and I think we should express our gratitude to you and to the other members of your Committee for having done this.

MR. SMITH: Thank you very much. I shall see that they are informed, Mr. Chairman.

SENATOR DUMONT: It is now one o'clock. I would like, too, to hear from these engineers, but I am not sure that we could confine the questions to a reasonable length of time. It might be well if, at this point, we recess until two o'clock for lunch.

I would submit that here we don't allow any longer than an hour for lunch, so you will have to be back by two o'clock if you want to ask the engineers any questions, or anyone else any questions.

Thank you very much.

(R E C E S S)

(AFTERNOON SESSION)

SENATOR DUMONT: Before we get underway here I have had a request from the folks in the gallery that sometimes they don't hear the witnesses and they don't hear Senator Crane nor me. We were guilty of not enunciating as clearly as we should have, so we will try to correct that, all of us, this afternoon. If you have any trouble, just raise your hands up there and we will try to be a little clearer in what we have to say here.

Now, before we get underway with any witnesses I have a statement here from Arthur S. Meredith of Somerset County, who is the Democratic Candidate for Assemblyman from Somerville, who is generally in favor of the plan outlined and I have promised him that we would make his statement a part of the record. He was here this morning and was not able to stay for this afternoon's session. His statement will be made a part of the record of these proceedings.

I also have here a letter from the President of Princeton University, Dr. Dodds, which I will read and we will make it a part of the official record:

"Dear Senator Dumont:

In the deliberations on the Stony Brook reservoir, upon which you and your colleagues are about to embark, it may be appropriate to acquaint you with the position of Princeton University on this matter.

The University is a property owner in the area to be affected by the proposed reservoir. The University Trustees and administration carry a heavy responsibility to maintain alert custodianship of all assets entrusted to the institution, not only a responsibility to the donors who gave but also to the generations of future beneficiaries -- the coming generations to be educated here and to carry on the quest for new knowledge here. Nevertheless, the University will not interpose its property interest between the State of New Jersey and a proper step toward a solution of the State's water problems, if further investigation proves that the proposed dam on Stony Brook is sound.

It is our judgment that further investigation is needed before a reasoned decision can be reached. The information made public to date by the New Jersey Water Resources Advisory Committee is insufficient for sound determinations on a proposal of such magnitude and of such far-reaching consequences.

Princeton University requests the State of New Jersey to obtain fuller information as to true land values in the affected area, a more precise contour map of the flooded sections, accurate data on tax ratables lost to the affected municipalities, reasonable estimates of the cost of relocating municipal and county roads, and a degree of coordination between the fundamental planning needs of Mercer County including land use, housing, highways, a factor for local industrial expansion, and the future water needs of the area.

The haste of those who would rush this preliminary study into an actuality is unwise. If the proposal is indeed a sound one, it will gain strength from more careful public examination.

Faithfully yours,
Harold W. Dodds."

(Applause)

SENATOR DUMONT: I appreciate your enthusiasm but we will have to confine the demonstrations as much as possible throughout these hearings.

Now at this time, I think we could serve a useful purpose by hearing from, and asking questions of primarily, the Engineer who worked for the Water Resources Advisory Commission, and I would like to call on Mr. Roy H. Ritter, a Partner of Whitman, Requardt & Associates of Baltimore, Consultants to the Advisory Committee.

I might say that we will accept any questions now from the audience that you want to have asked through us of Mr. Ritter.

ROY H. RITTER: My name is Roy Ritter, a Partner of the firm of Whitman, Requardt & Associates, Consulting Engineers of Baltimore, Maryland.

SENATOR DUMONT: Now, Mr. Ritter, do you have any introductory statement that you would like to make? Having heard some of the questions that arose this morning, it's possible that you may be able to answer them now without their having to be specifically asked of you again. I don't expect you to remember them all. We will try to refresh your recollection by getting questions.

MR. RITTER: Sir, I have no prepared statement, the engineering facts I have are incorporated in the report. I think it perhaps might be best if you suggest certain specific questions.

SENATOR DUMONT: Well we had a question this morning, for example, as to how many miles of road, how many bridges, and the total cost allowed for this part of the project in the figure of $14,000,000. Do you know?

MR. RITTER: We have made no specific detailed take-off of the mileage of roads or the number of bridges. We have been guided by the report of Tippetts-Abbett-McCarthy. Mr. McCarthy very kindly handed me the detailed estimates that he had used in preparing that. We reviewed the detailed estimate and it appeared reasonable to us. To those estimates we have added 15% for the price increase in the last two to three years, and in addition to that we have added 20% for unforeseen contingencies which might come about because of detailed surveys. The exact mileage of road could be scaled from the maps on page 16 and 17 of Stoney Brook Reservoir.

SENATOR DUMONT: Do you have any estimate on bridges?

MR. RITTER: Not specific, no, sir.

VOICE FROM AUDIENCE: Do you expect to build any bridges?

SENATOR DUMONT: You are Mr. Lamb?

MR. LAMB: Yes, sir.

SENATOR DUMONT: Do you expect to build any bridges?

MR. RITTER: That will be determined by a detailed survey. As Mr. Smith said, undoubtedly the main road through the reservoir site will be kept and certain other roads will have to be raised vertically, and undoubtedly bridges will have to be constructed at those locations. Whether they are 20 feet wide and called a culvert or more than 20 feet and called a bridge will depend upon a detailed survey.

SENATOR DUMONT: Anything further, Mr. Lamb?

MR. LAMB: Along the same line, do you have any estimate of the cost of -- (inaudible)

SENATOR DUMONT: The question generally is - Do you have any estimate on the cost of public utilities, the relocation of them and --

MR. RITTER: No detailed estimate. We have used the data in the Tippetts-Abbett Report which we have checked and again, as I said, we have added something like 20% in addition to that report for unforeseen contingencies, which is in the category of a quarter of a million dollars more.

SENATOR DUMONT: A quarter of a million dollars is generally what you are allowing for that? Or does that include roads and bridges as well? Is that just for public utilities?

MR. RITTER: For instance on Stony Brook we have an allowance in the category of $700,000 for unknown

contingencies in addition to what was in the Tippetts-Abbett Report. It is not specifically allocated for gas lines or pipe lines.

SENATOR DUMONT: How much was allocated in the T.A.M.S. Report for that, do you recall?

MR. RITTER: I don't recall, sir.

SENATOR DUMONT: But you are allowing $700,000 more than they did?

MR. RITTER: Right.

SENATOR DUMONT: Is that right?

MR. RITTER: That's right.

SENATOR DUMONT: This question was asked of Senator Crane this morning: In estimating three years time for expediting the reservoir, does that consider any time that would be required for due process litigation by property owners?

MR. RITTER: Yes, sir. Normally a project of this character would -- the engineering would proceed simultaneously with the acquisition of property, both of which should normally take perhaps six months time, and presumably land that could not be acquired by negotiation it would allow proper time for the one or two properties that may have to be condemned.

SENATOR DUMONT: Excuse me a moment here, but were you allowing six months for any condemnation proceedings? Is that what you said?

MR. RITTER: Not specifically, sir.

SENATOR DUMONT: How much time are you allowing for that?

MR. RITTER: We didn't itemize it, sir.

SENATOR DUMONT: I see.

MR. RITTER: Your judgment on that is as good as an engineer's, sir.

SENATOR DUMONT: Well sometimes I have seen them strung out for quite a while.

MR. RITTER: That could be.

SENATOR DUMONT: Do you know how much revenue is derived today from the Delaware & Raritan Canal?

MR. RITTER: No, sir.

SENATOR DUMONT: Did you get into the question of the cost to New Jersey of the construction of an on-river dam on the Delaware River, assuming, of course, that the present limitation of the statutes, of 30%, which is the maximum that New Jersey can expend because that's the maximum water supply we can get from an on-river dam under the present law, did you get into the cost to New Jersey of that sort of thing?

MR. RITTER: No, sir. I only read what was available in the Tippetts-Abbett Report which appeared reasonable to me. You know what -- I forget exactly the --

SENATOR DUMONT: I don't remember the figure offhand.

MR. RITTER: But they made an allowance when they considered taking water from the Delaware in their estimate. If you want to know what it is, I could find it.

SENATOR DUMONT: Well, let's go on and perhaps you can check it for us. This figure of approximately $33,000,000 to construct - I guess that was a dam in Round Valley, and get that prepared for holding water and also the cost of a pipe line and pumping station - was that your figure?

MR. RITTER: That was my figure, sir.

SENATOR DUMONT: That's to pump the water in from about Frenchtown, is that correct?

MR. RITTER: That's right, sir.

SENATOR DUMONT: I am not sure whether this is a proper question for you or for Senator Crane. Mr. Ritter, do you know what section of the bill calls for reimbursing the municipalities for relocation of roads? I think that's probably up to us to answer that, or try to.

SENATOR CRANE: I think that's in the general appropriation. The paragraph that I referred to this morning is the paragraph that reimburses communities in lieu of ratables -- that's Section 14 of 273.

SENATOR DUMONT: Section 14 of Senate Bill 273. That question was asked by Mr. Heatherington.

SENATOR CRANE: But that does not talk about

reimbursement for roads specifically. I think that is more a case of the general appropriations message. Mr. Ritter has said we set aside for improvement of roads that are affected --

SENATOR LANCE: Senator Crane, perhaps I can help on that. The Round Valley Bill of 1956 had a specific section where it definitely granted reimbursement to a municipality for relocation of roads. I take it from reading this bill that there is no such clause in this bill.

SENATOR DUMONT: Do you have that figure?

MR. RITTER: Yes, sir.

SENATOR DUMONT: This is for the New Jersey share now of the cost of an on-river dam in the Delaware. Is that correct?

MR. RITTER: Yes, sir. On Page II-41 of the Tippetts-Abbett-McCarthy-Stratton Report, under the third paragraph, using storage in Round Valley - DRV-1 - Frenchtown Pumping Station, Alternate A-1 with Wallpack Bend, there's an allowance of $15,850,000.

SENATOR DUMONT: That's just for the dam?

MR. RITTER: Apparently I would interpret that as New Jersey's share of the Wallpack Dam. Then there is Alternate 2 with Flatbrook Dam, they have made an allowance of $10,000,000. That would be in addition to

the pumping stations and pipe lines and the reservoir.

SENATOR DUMONT: What do they mean by the Flatbrook Dam, the site that the Army Engineers are recommending at Tocks Island?

MR. RITTER: No, sir. Flatbrook is a dam completely within the State of New Jersey on a branch that drains into the Delaware.

SENATOR DUMONT: Here is a question by Fred Vandeventer of Princeton: Has your engineering firm had any engineers or any representative in the area of the two proposed dams?

MR. RITTER: Yes, sir.

SENATOR DUMONT: Well, will you go into a little detail on that and tell us about it?

MR. RITTER: Mr. Glass from my office and myself have driven through both of these various reservoir sites at least twice.

(Laughter)

MR. RITTER: We have made no detailed surveys, We have had the benefit of the aerial photographs of the site on which we have shown the water level and a suggested taking line. Those aerial photographs were turned over to the appraisers. I say we have driven to this territory, I didn't walk through it, and we did not make detailed accurate surveys which would be necessary if this project is authorized for construction.

SENATOR DUMONT: And on the basis of that, these figures that you have arrived at on the value of the dams, you would say are pretty accurate figures, that is the cost of construction?

MR. RITTER: They are reasonable for an estimate of this character, with the proper allowances for contingencies.

SENATOR DUMONT: Now he asks further: If you have made surveys would you state the extent of these surveys and detail the engineering facts to make certain that these dams are engineeringwise and economically sound.

MR. RITTER: The Tippetts-Abbett Report made geological surveys of each site which is recorded in their report. We have made no detailed field surveys. We have the benefit of a detailed estimate of Tippetts-Abbett-McCarthy in which we concur.

SENATOR DUMONT: Then it is your opinion that these dams are sound, both from an engineering and an economic standpoint?

MR. RITTER: Yes, sir.

SENATOR DUMONT: This question by George E. Meredith is much along the same line. I think the first part of it you covered. He asks: Have you personally been over the entire territory in question? You have been. That's what you said before.

MR. RITTER: Yes, sir.

SENATOR DUMONT: Have you or your staff made any surveys or are your estimates based solely on studies of others?

MR. RITTER: It's based upon the detailed studies of Tippetts-Abbett-McCarthy-Stratton which we have checked and in which we concur in the cost data.

SENATOR DUMONT: Senator Crane?

SENATOR CRANE: This may be an unfair question, Mr. Ritter, but since I believe it is evident to all that so much emphasis and reliance has been placed on the Tippetts-Abbett-McCarthy-Stratton Report, do you feel that the T.A.M.S Report is a decent engineering survey on which to base the fundamental premise that this suggested program is economically sound and feasible?

MR. RITTER: I only meant to say I took the detailed estimate of the dam site. The selection of the dam was purely our responsibility. The valuation of the cost estimate is purely our own and in fact our estimates of cost are appreciably higher than those in the Tippetts-Abbett Report. I only meant to say that we did not try to find three or four other different reservoir sites. These were obviously good sites.

SENATOR CRANE: Would you say that the T.A.M.S. Survey was a comprehensive survey?

MR. RITTER: Yes, sir.

SENATOR CRANE: Well, you didn't answer the last part of that question: Do you feel that it is sound enough even on that to rely on that survey as a basing point to judge the soundness of this program?

MR. RITTER: This program, sir, was not outlined in the Tippetts-Abbett Report. We have selected several of their reservoirs and then from that adopted a new program, sir.

SENATOR CRANE: Well, that's true but you adopted two dams out of the four dam program.

MR. RITTER: I think seven, sir.

SENATOR CRANE: Well, in the final analysis.

MR. RITTER: You're right. That's right.

SENATOR CRANE: Thank you very much.

SENATOR DUMONT: Senator Lance?

SENATOR LANCE: I don't know whether this is an engineering question or a question for an economist, it goes to cost of water. Assuming that the Legislature should remove the restriction on Round Valley so that Round Valley could use Raritan waters, what would be the cost of Round Valley water using Raritan waters?

MR. RITTER: As near as we can figure it, sir, it would be at least double in cost, assuming Round Valley would develop and a two hundred million gallon

pumping station was installed at Hamden and a pipe line I think some three miles from Ham den to the Round Valley Reservoir, and a thirty million gallon reservoir taking only the flood waters of the Raritan, that would develop about 50 m.g.d. of safe yield. The cost of that project is in the category of $55.00 a million gallons in the reservoir, on a comparable basis to the $25.00 that has been suggested here for the water in the bed of the stream.

SENATOR LANCE: In summary then, Round Valley could produce water at $55.00 per one million gallons --

MR. RITTER: Yes, sir.

SENATOR LANCE: -- on a basis of fifty million gallons a day safe yield for 365 days. Now are you including in there pipe lines that would take the water from Round Valley to Elizabeth?

MR. RITTER: No, sir. This is at the dam site itself. This is again raw water comparable to the other.

SENATOR LANCE: What you're saying is that if people want to come to Round Valley and dip it out --

MR. RITTER: That's right.

SENATOR LANCE: -- they can get it for $55.00 per million gallon?

MR. RITTER: That's right, sir.

SENATOR LANCE: Suppose they don't want to dip it out but they want the water delivered to them by pipe line to Elizabeth, what's the cost of Round Valley

water using Raritan Water?

MR. RITTER: That project would be the same as has been developed by the New Jersey Water Supply Commission and has been reported in T.A.M.S. and, by memory, it was in the category of $140 to $160 a million gallons. That would be filtered water and under pressure.

SENATOR LANCE: When would customers buy Round Valley water in years away if these two reservoirs were a fact?

MR. RITTER: That's a difficult estimate to make, sir.

SENATOR LANCE: What is your best estimate?

MR. RITTER: Your question now is that both of these --

SENATOR LANCE: Assuming that Spruce Run and Stony Brook give you raw water at $25.00 per one million gallons and assuming that Round Valley would charge you $150 per million gallons, which is six times as much for the finished product, how many years do you figure it would take before people would want to buy Round Valley water if these two reservoirs were a fact?

MR. RITTER: It appears conceivable to me that the minute the restriction is removed from Round Valley there are potential customers that are willing

to pay the extra amount of money. That's entirely possible because, in my opinion, the North Jersey Districts are quite anxious, as you know, to carry out that idea. Whether it would be done, I don't know, sir. According to our best predictions of the use, about ten years from now the water created by these two reservoirs would be used up and there is a need for more water. It could be seven years or ten years, sir. Does that answer your question?

SENATOR LANCE: Your conclusion is then that people will want to use Round Valley water.

MR. RITTER: Not a conclusion, sir, but a possibility and a probability, I would say.

SENATOR LANCE: Your conclusion is that there is a possibility that people will find Round Valley water cheap enough at a point seven to ten years from now?

MR. RITTER: Yes, sir. Don't forget that $55.00 a million gallons, when people buy water at the spigot it is in the category of $500 a million gallon. So the difference in cost between $25.00 and $55.00 is two cents a thousand gallons, which is very small when you compare the retail price of about fifty cents a thousand gallons.

SENATOR DUMONT: Two more questions. Mr. Crooks asks this question of you? What do you mean by the detailed studies of the T.A.M.S. Report and how

detailed are they?

MR. RITTER: By detailed studies I mean I have reviewed every reservoir they have discussed in this report. I have also received from them their detailed work sheets on all the reservoirs we were interested in.

SENATOR DUMONT: Now from Mr. Lamb. What significant engineering data has your firm developed that does not appear in the T.A.M.S. Report?

MR. RITTER: May I start at the background?

SENATOR DUMONT: Yes, you may.

MR. RITTER: When we were retained on this project back in October it was obvious to the Committee and to ourselves that there had been many studies of water supply dams and reservoirs in New Jersey. As we saw it, our problem was to help the Committee select which of several dams had previously been studied and, therefore, we did not make searches for additional reservoir sites. So you might say that we have not intended to look for more sites, we have intended to select those that had previously been studied to proceed on a workable program.

SENATOR DUMONT: Now let me ask this further question: If substantially no new information has been added, why do the recommendations - I imagine he means your recommendations - differ from those in the T.A.M.S. Report?

MR. RITTER: Perhaps we have, working with the Committee, created a new concept of surface water supply on river reservoirs and selected two of them, checked the financing and come up with a workable program. I think perhaps we have contributed more of an idea in arrangement than we have found the fabulous reservoir that nobody else has found before.

SENATOR DUMONT: Question by Mr. Kingsford: Are Stony Brook and Spruce Run Reservoirs considered only for storage of water from their own watersheds or are they desired as storage for Delaware River water as well?

MR. RITTER: Only from their own watersheds. It is not contemplated that Delaware Water would be pumped into these reservoirs.

SENATOR DUMONT: Are there any further questions to be asked of Mr. Ritter? What is your name, sir?

JOHN HEATHERINGTON: My name is John Heatherington.

SENATOR DUMONT: All right.

MR. HEATHERINGTON: Mr. Ritter, on page 22 of the first report of the New Jersey Water Resources Advisory Commission it states that the Spruce Run Reservoir will provide a lake of 1240 acres. What will be the actual overall acreage that will be involved in this? Do you know, sir?

MR. RITTER: In making an estimate of this character it is difficult to determine the exact land that has to be acquired. Generally speaking, the minimum you have to acquire is in the category of maybe 50% more. It so happens quite often that instead of buying three-quarters of a piece of farm you will buy the entire farm. Does that answer your question, sir?

MR. HEATHERINGTON: Yes, sir.

SENATOR DUMONT: Any other questions?

EX SENATOR O'MARA: Mr. Chairman, I, of course, would like to reserve my right to examine Mr. Ritter at a future date but there are two or three questions that I would like to ask him now in a preliminary manner. Mr. Ritter, I wish you would explain a little more fully just what factors entered into the selection by your firm of these particular sites.

MR. RITTER: We obtained a map of the entire drainage area and plotted all these seven or eight reservoir sites thereon. We had the estimates of cost and we knew what they would produce, and by discussion with Mr. Requardt in my office and other engineers we selected these two reservoirs for many reasons. First of all, they are reasonable in size, they are economical reservoirs, they are good dam sites and good reservoir sites. Each of them will

fully develop the area behind them. Each reservoir has about forty square miles behind them. Each reservoir is sort of backed up to the mountains; in other words, the drainage -- they go up to the watershed and beyond these reservoirs there is the watershed of the Delaware River.

Both of these reservoirs will firm up the flow in about 30 miles of the Millstone River and about 30 miles of the South Branch and Raritan River.

So, giving consideration to all those factors, our engineering office selected these two sites, recommended them to the Committee, and no one has suggested that we do differently, sir.

EX-SENATOR O'MARA: I haven't seen the T.A.M.S. Report, Mr. Ritter, but I gather from what you have said that that report recommended, or at least mentioned, seven possible sites.

MR. RITTER: Yes, sir.

EX-SENATOR O'MARA: And were all seven of these sites examined by you?

MR. RITTER: Yes, sir.

EX-SENATOR O'MARA: Did the T.A.M.S. Report list these sites in the order of desirability?

MR. RITTER: Reasonably so. They gave several alternate combinations, but my memory is that the two we selected - one of the reservoirs, I remember, they indicated was not the better choice.

EX-SENATOR O'MARA: Could you tell me the order of desirability of the sites as set forth in the T.A.M.S. Report?

MR. RITTER: No, sir.

EX-SENATOR O'MARA: Have you the T.A.M.S. Report before you?

MR. RITTER: Yes, sir.

EX-SENATOR O'MARA: Could you find it?

MR. RITTER: Page II-12.

EX-SENATOR O'MARA: I haven't got it here. I haven't got a copy, so will you tell me, please, the order in which the T.A.M.S. Report sets out these sites, in the order of desirability?

MR. RITTER: They have no order of desirability, sir.

EX-SENATOR O'MARA: I understood you to say that they did.

MR. RITTER: No, sir. I didn't intend to say that.

EX-SENATOR O'MARA: They did not recommend the advantages of any one site against the others?

MR. RITTER: Not in a clear-cut manner.

EX-SENATOR O'MARA: Well, in an unclear-cut manner, did they do it?

MR. RITTER: If you consider money is the only criterion, one of them is the least cost.

EX-SENATOR O'MARA: And what did they take as the most desirable from the standpoint of cost?

MR. RITTER: They didn't take it as the most desirable, sir. I don't want you to put words in my mouth.

EX-SENATOR O'MARA: I'm not trying to put words in your mouth.

MR. RITTER: Their report says Rocky Hill can be built for $4,000,000, and that is the cheapest one in their project.

EX-SENATOR O'MARA: And where is Rocky Hill?

MR. RITTER: Rocky Hill is on Bedens Creek. Rocky Hill Reservoir site is on Bedens Creek; I believe that's the name of it, sir. It flows into the Millstone River; it's probably several miles downstream from Princeton.

EX SENATOR O'MARA: And what is the next cheapest site?

MR. RITTER: The next cheapest site is Stony Brook.

EX SENATOR O'MARA: And the next?

MR. RITTER: Spruce Run.

EX SENATOR O'MARA: And the next?

MR. RITTER: North Branch.

EX SENATOR O'MARA: And the next?

MR. RITTER: They are the only four reservoirs which are identical in size. They report on the Neshanic Reservoir, Pottersville, and Raritan. They are of different size, sir, and the cost would not be comparable.

EX SENATOR O'MARA: Well, Rocky Hill was eliminated, I assume, from consideration by you in your report to this Committee. I mean, you didn't take it--

MR. RITTER: We didn't take it as the first or second reservoir. This Committee has instructed our office to select other reservoir sites, and it is conceivable that in the future program, one or more of these reservoirs would be selected as a third, fourth, or fifth reservoir to be constructed.

EX SENATOR O'MARA: Now, let me understand that. The Committee instructed you, before you started your considerations of the problem, to eliminate Rocky Hill?

MR. RITTER: No, sir. I didn't say that. The Committee, as of today, has instructed me during the next six months' time to select future reservoir sites for their consideration.

EX SENATOR O'MARA: Well, in your report to the Committee, you picked out, did you not, Stony Brook and Spruce Run?

MR. RITTER: Yes, sir.

EX SENATOR O'MARA: And did you, therefore, eliminate Rocky Hill from consideration?

MR. RITTER: For first and second consideration, yes, sir.

EX SENATOR O'MARA: And why?

MR. RITTER: Because in our opinion the other two reservoirs were preferable.

EX SENATOR O'MARA: From what standpoint?

MR. RITTER: From many standpoints, sir.

EX SENATOR O'MARA: Let me have them, please.

MR. RITTER: From the standpoint of - primarily, I would say the firming up of the flow in 30 miles of the stream below each of them. They are good reservoir sites; the geology of these sites are excellent, as reported by the geologist.

EX SENATOR O'MARA: Did any other factors enter into the selection of these two sites?

MR. RITTER: No, sir, not any specific factor. Are you referring to anything, sir?

EX SENATOR O'MARA: No. I want to know what other factors, if any, entered into your determination

of which were the most desirable sites.

MR. RITTER: That is just broad, general engineering knowledge of Mr. Requardt, of our office, and myself.

EX SENATOR O'MARA: Now, you rode through these two sites on two occasions?

MR. RITTER: Yes, sir.

EX SENATOR O'MARA: In an automobile, I suppose?

MR. RITTER: Yes, sir.

EX SENATOR O'MARA: You took no surveys of the sites?

MR. RITTER: No, sir.

EX SENATOR O'MARA: You had aerial photographs taken of them, however?

MR. RITTER: They were available and we bought them.

EX SENATOR O'MARA: When were those photographs taken, do you know?

MR. RITTER: I think several years ago, sir.

EX SENATOR O'MARA: At what season of the year?

MR. RITTER: I don't know, sir. I have them out in the hall with the dates on them. They are State of New Jersey photographs.

EX SENATOR O'MARA: Could you tell me whether there were leaves on the trees?

MR. RITTER: I think there were, sir.

EX SENATOR O'MARA: In your judgment, would that add or detract from the value of the photograph?

MR. RITTER: It depends on what purpose you want it for, sir. To get contours, they would detract.

EX SENATOR O'MARA: Well, what purpose did you want these photographs for?

MR. RITTER: To delineate the property that would have to be acquired in order that the land appraisers could have a better map, in order to appraise these properties to be acquired.

EX SENATOR O'MARA: The taking of these photographs, or the examination of the photographs, therefore, had nothing to do with the question of determination of contour, did it?

MR. RITTER: No, sir.

EX SENATOR O'MARA: Now, one other preliminary question: The estimate of cost of $25.00, how was that arrived at?

MR. RITTER: After the two reservoirs were selected and the prices were determined and allowances were made for engineering contingencies and a reserve fund, we arrived at the price of $14,000,000. Based upon that, we determined, or at an interest rate of three per cent on the bonds, we assumed a maturity schedule and we assumed a sale of water, which is outlined in our report, and by several thousand there, we found that $25.00 per million gallon would make it self-sustaining.

EX SENATOR O'MARA: And it's your judgment and your report to the Committee that, based on the cost

of $25.00 per million gallon, this project would be self-sustaining and self-liquidating?

MR. RITTER: If the water is sold as shown in our chart on page 19, sir. That assumed that the first year of operation would have sold 30,000,000, the next year 35, and the next year 40, and that before you would build Stony Brook, you would have commitments for approximately half of it.

EX SENATOR O'MARA: And if those sales do not hold up, then of course the project is not self-liquidating, is it?

MR. RITTER: Well, that is determined by the time you build Stony Brook, sir.

EX SENATOR O'MARA: I see.

MR. RITTER: If there are no commitments for the Stony Brook water, it would be postponed for construction, I assume, until there were commitments, although some of the testimony here today thinks it should be built earlier, sir.

EX SENATOR O'MARA: You are, no doubt, familiar with the fact that the bill as drawn provides for the turning over of the funds which the State derives from the Delaware and Raritan Canal.

MR. RITTER: I read that in this bill, sir.

EX SENATOR O'MARA: And, also, that the bill further provides that if that, in addition to the revenues derived from the sale, is not sufficient, then there shall be a general ad valorem property tax. From an economic

standpoint, is it your judgment that both the requirement that the revenues from the Delaware and Raritan Canal be turned over and that an ad valorem tax be imposed?

MR. RITTER: The requirement for ad valorem tax, sir, is necessary in order to sell general obligation bonds at the lowest rate of interest. If that was not in, sir, you would be an authority comparable to the Turnpike.

EX SENATOR O'MARA: I understand that, but I am asking you not what enters into the salability of the bonds so much as your judgment as to whether or not the project would be self-sustaining and self-liquidating without reference to any funds of the State of New Jersey derived from the Delaware and Raritan Canal or without the necessity of imposing any ad valorem tax.

MR. RITTER: Yes, sir. If the sale of water is in this category, or within ten or twenty per cent thereof.

EX SENATOR O'MARA: Now, this price of $25.00 per million gallons is for water in the reservoir?

MR. RITTER: No, sir.

EX SENATOR O'MARA: It is not?

MR. RITTER: It is in the bed of the stream.

EX SENATOR O'MARA: All right. I reserve the right for further questioning, Mr. Chairman.

SENATOR DUMONT: Another question here for you, Mr. Ritter:

Please cite the page in the T.A.M.S. Report giving the road estimates and plans? This is by Mr. Kingsford.

MR. RITTER: The road estimates are not detailed in the Tippetts-Abbett Report. They are included under reservoir costs. The detailed estimates of the roads I have obtained from Mr. McCarthy himself, directly. He gave me his worksheets on the road relocation costs.

SENATOR DUMONT: It says here: Does the cost estimate you gave include new road on top of Stony Brook Dam instead of Provinceline and/or Carter Road bridges?

MR. RITTER: No, sir, there is no road contemplated across these dams.

SENATOR DUMONT: Are there any other questions now? Mrs. Hughey?

MRS. HUGHEY: On page II of the Report, it says:

> "Recent rechecks of real estate values in the Stony Brook and Spruce Run areas indicate that the Engineer has made ample provision..."

I wondered by whom and how many rechecks of the real estate values were made?

MR. RITTER: The Committee requested the firm of Feist & Feist to make an appraisal of these two reservoir sites, which they have done, and that is their appraisal which we have used in our estimate. To that appraisal, we have added 20 per cent.

MRS. HUGHEY: What was the amount of their appraisal for each of the separate areas?

MR. RITTER: In our estimate, we have $1,100,000 for the land at Spruce Run and $3,100,000 for the land at Stony Brook, or a total of $4,200,000 for the total land.

This is the appraisal of Feist & Feist, to which we have added 20 per cent.

SENATOR DUMONT: Mr. Hauck has a question for you.

ANTHONY HAUCK: Mr. Ritter, there has been quite some talk about the fact that in drought periods these reservoirs may be muddy, full of mosquitoes, swampy. Could you give us some idea on both the reservoirs, and particularly the greatest fall in feet or inches, and the areas along the shores affected if we had a dry spell like in 1932, or dry spells as in '53 and '54. I know you can't give it accurately.

MR. RITTER: Undoubtedly, the reason we build these reservoirs is so that if a great drought like in 1930 or 1932 occurs, the reservoirs at that time can be drawn down, but the frequency of that is probably once in 50 years. At that time the reservoir may be drawn down - I am talking from memory - perhaps 25 feet down, and the surface area would probably be half of what it is when it's full. In a normal season, the reservoir - and we have computed the data for the last ten years and, talking from memory, six or seven of those years, the reservoir would drop in the category of four feet, vertically, so that there would not be much change in the surface area. I think through the drought of 1941, it would probably have been down 10 feet. That is only for a period of a month or two until it is filled up in the fall.

MR. HAUCK: Are you familiar with this alcohol film which Senator Crane talked about?

MR. RITTER: Yes, sir.

MR. HAUCK: Would it be possible to use that if this lake were used for recreation, boating and fishing?

MR. RITTER: From what I have read and in experiments that are now being undertaken in the West, it could be. That is a problem of economics - whether the cost of that alcohol in the reservoir is economically feasible. But it has no harm as far as persons are concerned.

SENATOR DUMONT: This question is from Fred Vandeventer: Has your firm accurately determined that there is a probability or any assurance of the sale of water from either of these dams?

MR. RITTER: Yes, sir. We have interviewed, as we see it now, two potential customers, which would be two potential known customers. There are lots of others that we haven't interviewed. The Elizabethtown Water Company has indicated their interest and the North Jersey Districts have indicated their interest, but there are no signed contracts, no commitments between the Committee and any know customers.

SENATOR DUMONT: Did they indicate how much water they would want, approximately?

MR. RITTER: I am talking from memory, but I think representatives of the Company told me in the category of twenty million gallons.

SENATOR DUMONT: Each, twenty million?

MR. RITTER: No, sir.

SENATOR DUMONT: Together.

MR. RITTER: The Elizabethtown Water Company indicated, I think, they were interested in about twenty and I haven't gotten any definite amount from North Jersey. It's common knowledge that North Jersey was interested in building an entire Round Valley Reservoir.

SENATOR DUMONT: Mr. George E. Meredith asks this question: You stated that no roads are contemplated over dams. Does that not imply a dead-end road on each side of the dam on Carter Road, Elm Ridge Road, and possibly others?

MR. RITTER: I presume he is talking about Stony Brook Reservoir, and the dam location as shown in the book is not near a road, sir.

SENATOR DUMONT: It's not near any road?

MR. RITTER: There is no road that would logically cross that dam. That is shown on page 17 of this brochure, sir.

SENATOR DUMONT: Mr. Meredith, you mean the roads over the proposed dams, or just what do you mean? Right over the dam itself, at the top of the dam?

MR. MEREDITH: As I understood the witness' answer, while there was going to be a reservoir, there was to be no road over it.

MR. RITTER: There will be roads that cross the reservoir; I'm sorry, I misunderstood you.

SENATOR DUMONT: He means there will be no road

across the top of the dam.

MR. RITTER: No road across the top. But where existing roads are crossing the reservoir, it has been our assumption that they would be maintained, the major roads. That would be something to be determined when detail plans are prepared.

SENATOR DUMONT: Like a causeway across the reservoir itself.

MR. RITTER: That's right. Undoubtedly, those roads would have to be maintained.

SENATOR CRANE: This is just one question, Mr. Ritter: When you were talking about these roads, Senator Lance pointed out before that there is no specific provision in this law, where there was one in the Round Valley. It was my understanding that the cost of improvement or raising these roads and building the bridges is taken care of in your estimate of costs of building.

MR. RITTER: Yes, sir. That's perfectly known that a reservoir of this character has to pay for its own road relocation.

SENATOR CRANE: Well, now, is it a matter of general practice that the building of those roads and bridges is taken care of that way or in other states do they provide for a rebate to counties and municipalities to build those roads? I believe that is what Senator Lance was pointing out.

MR. RITTER: The cost is included in this estimate. Whether it is actually built by the county or the State or by separate contractor is a detail which could be worked out later.

SENATOR CRANE: But the funds are available for the improvement?

MR. RITTER: Yes, sir. In this $14,000,000, we have an allowance for these roads.

SENATOR CRANE: And you say that that is $700,000 more than was required in the T.A.M.S.?

MR. RITTER: Yes, sir. Now, that is not necessarily all assigned to roads but that is an over-all contingency.

SENATOR LANCE: I think the point is, Senator Crane, that there is nothing in the bill creating a mandatory duty of the State or anyone else to reimburse municipalities for loss of roads. So that would raise the question of whether the Commissioner of Conservation and Development would have the legal right to spend money for which there was no legislative authorization.

SENATOR DUMONT: By Mr. Lamb: When you say Rocky Hill was the first choice on a cost basis, what do you mean by "cost"? Cost per million gallons of water, or the lowest cost of investment?

MR. RITTER: I didn't intend to say it was the first choice. I said it was the cheapest. It was a lump sum total for construction.

SENATOR DUMONT: You mean the actual cost of investment rather than the cost per million gallons of water?

MR. RITTER: All four of these reservoirs that I quoted were identical and would have created an identical amount of water, sir. It would be the cheapest on any basis; first cost, operating cost, and all those things. We are comparing four identical reservoirs.

SENATOR DUMONT: I see.

He goes on here: Which site recommended by T.A.M.S. provides the lowest cost per million gallons, which of these reservoir sites?

MR. RITTER: That would be Rocky Hill, because it is the cheapest one recommended here, sir.

SENATOR DUMONT: Question by Mr. Edward B. Meredith: If two dams cost $28,000,000 - Where did that figure come from? Oh, it's a hypothetical question. If two dams cost $28,000,000 - (1) what would be the price per million gallons of water? I will give you this in sections because there are four of them.

Rather than delay the hearing, would you like to think this question over before you answer it? I will give you the four parts of it. Apparently, he is trying to arrive at the formula whereby you work out the price per million gallons. Then he says, "Was maintenance included?" "Would such a cost make the project self-sustaining, and would such a cost make dams feasible? "

MR. RITTER: Is your inference that if these cost twice as much, the sale of water would be twice as much. That is substantially the same. Is that the tone of the question there, sir?

SENATOR DUMONT: Well, he says: If two dams cost $28,000,000, what would be the price per million gallons? Now, your point is that it would be twice as much as you have estimated for $14,000,000; is that right?

MR. RITTER: If it created twice as much water, the $25.00 would be the same. If it created the same amount of water, that's simple arithmetic.

SENATOR DUMONT: Then it would be $50.00 per million gallon?

MR. RITTER: That's right.

SENATOR DUMONT: Is maintenance included?

MR. RITTER: Yes, sir.

SENATOR DUMONT: Would such a cost make the project self-sustaining?

MR. RITTER: Yes, sir. If you charged $50.00 for it, it would be.

SENATOR DUMONT: Would such a cost make dams feasible?

MR. RITTER: I'm not qualified to answer that. I have made no study of that.

SENATOR DUMONT: Question by John Maurer: I am not sure if this is an engineering question, but I will ask it of you. What do you propose for the residents who become isolated?

MR. RITTER: I don't think that's appropriate for me to answer. That is more of a legal or administrative question, sir.

SENATOR DUMONT: Or a legislative question, perhaps.

Are there any further questions? Senator Crane?

SENATOR CRANE: I feel that the remarks by Senator Lance may not have been picked up for the record, but I think it should be there: Should we attempt to perfect the legislation, Senator Lance, it was your statement that there is no specific authorization to build roads or fix responsibility for construction in this act. I think, if they are thinking of amending this legislation, or should they think of passing it, that that should be considered. Is that your thought?

SENATOR LANCE: My point was that, as I read the bills, they just plain didn't do it - period; that there was nothing about road relocation, number 1, nor two, any tax reimbursement formula which could be expressed mathematically. There is a nice formula about tax reimbursement, but I am not quite sure what it means and, if you went to court to sue, I don't know how much you would collect.

SENATOR CRANE: You weren't here this morning when I explained that one away as not being satisfactory to myself either.

I have some questions of you, Mr. Ritter.

Have you had experience with other state or regional water programs?

MR. RITTER: No, sir, because, to my knowledge, the State of New Jersey is the only State now in the water

business. The State of California is talking about it, but no other State, itself, owns a Delaware Canal, sir, at the state level; there are a lot of groups.

SENATOR CRANE: Well, then, we will have to restrict ourselves to talking of dams by themselves being constructed by whatever parties. Have any dams to your knowledge been brought-- I guess you wouldn't reach the legislative stage-- before a more comprehensive survey than the T.A.M.S. Report was given? I mean, have they initiated, let's say, the legislative approach before a more comprehensive report than this was available?

MR. RITTER: This is a normal procedure for work of this character.

SENATOR CRANE: That's what I wanted to try to find out.

Do they enter into any other type of surveys before reaching the legislative stage?

MR. RITTER: You mean the stage for authorization by a city or that sort of thing?

SENATOR CRANE: Yes.

MR. RITTER: No, sir. We are doing a $35,000,000 project for the City of Baltimore now, sir, and their authorization for that $35,000,000 city bond issue was based upon a report in general of this character.

SENATOR CRANE: How much is set aside for the final type of engineering survey that would be undertaken before proceeding with the actual construction? That is to include both dams.

MR. RITTER: The Tippetts-Abbett-McCarthy Report used the factor of, I think, seven and a half per cent of the construction cost as allowance for engineering, and we included that same factor in this estimate. That would be detail engineering, field supervision, - at eight and a half per cent, sir, of the construction cost, not the land value.

SENATOR CRANE: Eight and a half.

MR. RITTER: Eight and a half per cent of the actual construction cost, for engineering and supervision.

SENATOR CRANE: Well, with your knowledge of this program, based on your own report and the T.A.M.S. Report, in your opinion, is there any geological or hydrological fact that might completely refute your findings and make this dam proposal worthless? - dam program proposal worthless; pardon me.

MR. RITTER: The geologists were retained to review all these dam sites and the report of the geologists say that they see no reason why these dams could not be built. Before construction is started, you would have to have underground core borings, which are right expensive in their own right, to eliminate any doubts whatsoever concerning the foundation. I have no reason to believe that these are not first-class dam sites.

SENATOR CRANE: But those borings are taken usually in the steps that are paid for by the eight and a half per cent of construction costs?

MR. RITTER: Yes, sir.

SENATOR CRANE: Well, you have complete faith that this is a worthy plan.

MR. RITTER: Yes, sir.

SENATOR DUMONT: Mrs. Hughey wants to know: Were any percolation or rainfall studies made by your firm?

MR. RITTER: No, sir. We used the data of the U. S. Geological Society.

SENATOR DUMONT: Were there any made by T.A.M.S.?

MR. RITTER: No, sir. It is not normally done because the U.S.G.S. has tremendous volumes of published data.

SENATOR DUMONT: Well, we still have about eight or ten witnesses and I have more or less promised them they would get on here this afternoon, so we are going to have to move along.

MR. HAUCK: May I ask a couple of questions?

SENATOR DUMONT: Mr. Hauck, all right.

MR. HAUCK: Mr. Ritter the town of Clinton, one of the municipalities that I represent, has a municipal-owned water company which would be a short distance below the dam at Spruce Run. In the future, with territory growing, under these bills will it

be possible for the Town of Clinton Water Company to tap in and buy water from this reservoir?

MR. RITTER: As I see the development of this, the allocation of water would be under the present Water Policy Board. I think, whether you get it out of the reservoir or the stream below would be a detail. I see no reason why local people wouldn't have, you might say, first choice on the use of the water.

MR. HAUCK: In other words, if the Water Policy Commission gave permission, after a hearing, they could get it?

MR. RITTER: Physically, yes, sir.

MR. HAUCK: Now, one other question: If you will look at the Spruce Run Map on page 16 -- and I would like to get back to the question of roads. I believe Mr. Smith said that these roads would be elevated. Would all those roads going through the reservoir be elevated and how would they be elevated? that is, would it be on concrete piers or the roads built up on like an embankment?

MR. RITTER: That would be an economic study that would have to be done in accordance with the State Highway Commission's standards.

MR. HAUCK: But the amount of money to do that has been considered in your figures?

MR. RITTER: Yes, sir.

MR. HAUCK: And would the maintenance of the roads revert to the people who are now maintaining

them, that is, the township portion to the township and the county to the county, or would your department, that is, the conservation department, would they maintain those roads?

MR. RITTER: We haven't made any determination of that but from memory I think it is customary for the Highway Department to continue to maintain the roads.

MR. HAUCK: Well there are some instances --

MR. RITTER: That's not a fixed rule and it varies from place to place.

MR. HAUCK: There are some instances - and I am now talking about the Glen Gardner Sanatorium for Tuberculosis in our county - I believe there is a stretch of road leading from the State Highway into the Institution which is a public road, it leads to other houses, that I believe is maintained by the State of New Jersey because it goes to State property. Now has any consideration been given by your survey and by the department as to whether or not, since these roads will lie wholly within a territory owned by the State, with the tax money taken away, that the State of New Jersey will maintain those roads, wholly?

MR. RITTER: We have made no decisions in that matter, sir.

MR. HAUCK: Thank you.

SENATOR DUMONT: Thank you very much, Mr. Ritter. Excuse me. Just a moment, there is one more here. Senator Crane has one more question he would like to ask.

SENATOR CRANE: I wanted to know, in your opinion, Mr. Ritter, if, once proceeding beyond the stage evidenced by your report and by the T.A.M.S. Report, you know of any project that has ever been refuted as worthless by subsequent findings?

MR. RITTER: No, sir. I don't know of any. No, sir. I don't know of any specific one from memory. Undoubtedly, with the thousands of projects that are developed, you could find one, but I can't conceive of this falling down because of geology or something of that character, sir.

SENATOR CRANE: Well, the purpose of my asking, as you understand, is to establish or try to establish that this is the normal procedure.

MR. RITTER: It is the normal procedure, sir.

SENATOR CRANE: Thank you.

SENATOR DUMONT: How do the services of Leggette, Brashears & Graham differ from your services? Were they confined solely to ground --

MR. RITTER: Yes, sir.

SENATOR DUMONT: -- underground water surveys?

MR. RITTER: That's right, sir. They investigated the ground water and we did the surface water.

SENATOR DUMONT: Thanks very much.

Now, I don't want to limit anybody but we are trying to get through a certain group of witnesses who today want to be heard because they can't come back another time, so we are going to have to ask that they confine their testimony as briefly as possible and then, of course, we will have a couple of minutes to ask questions.

Commissioner Joseph McLean, Commissioner of the Department of Conservation and Economic Development.

Mr. Joseph Bash, Counsel to the County of Mercer, has requested that his appearance be entered and he would like to reserve the right to cross examine witnesses, either today or on some future occasion.

Commissioner McLean.

JOSEPH E. McLEAN: Mr. Chairman and Members of the Committee, I appreciate the opportunity of testifying here today with respect to this legislation. I hope that Mr. George Shanklin, who is Acting Head of our Water Division and Dr. Thurlow Nelson, Chairman of the Water Policy Council, will also have a chance to be heard and

to testify as to their respective viewpoints and, in a sense, their functions as they affect this legislation.

As you know, I represent a Department that has been assigned a considerable number of functions. I won't attempt to equate all of those at this time because I think they are all important in a sense to the overall development of the State.

Certainly, however, with New Jersey's large and growing population, we have no responsibility more significant than helping lay the groundwork for the economic progress that must be achieved to provide jobs for everyone entering the labor force. No single factor is likely to determine the scope or rate of our economic development. But the more we deal with this subject, the more evident it becomes that economic growth and job opportunities will be profoundly affected by our response to the demand for water.

A few years ago Peter F. Drucker wrote a series of articles concerning America's next twenty years. In citing eleven issues likely to dominate public life during this period, he placed the question of water at the head of his list, making the following observations:

> During the next twenty years the need for water will sharply increase-partly because of population growth, but mainly because the new and growing industries typically need water at an ever-increasing rate. A mad scramble for water resources among metropolitan areas, states, and regions is already going full tilt....

As far as New Jersey is concerned, only recently we lost an important industry to another state, principally because officials of this company believed it would be easier to satisfy their water needs elsewhere. I cite the case because I wish to underscore the fact that failure to relieve existing water shortages and to make provision for future requirements not only can be a deterrent to expansion but also confronts us with the danger of losing industries already established in New Jersey.

Under a democratic system of Government, there are countless issues forever giving rise to partisan and

and ideological differences. If there is such a thing as a wholly non-partisan issue, however, certainly the question of meeting public and industrial water needs should be so considered. This has been the attitude of the Department of Conservation and Economic Development, and it definitely has been the attitude of Governor Meyner. As evidence, I would cite the Governor's reappointment of Dr. Thurlow Nelson --- who has served under both Republican and Democratic administrations, --- as chairman of a State Water Policy and Supply Council. As further evidence, I would point out the character of the State Water Resources Advisory Committee, whose members I chose without regard to political affiliation to represent the interests of industry, labor, agriculture, recreation and above all the citizen at large. In a word, neither the Democratic Party nor the Republican Party has a monopoly on our water problem. By the same token, neither party should be interested in a monopoly on its solution. It is an issue of such vital consequence to New Jersey that it transcends partisan political consideration. I am sure that Governor

Meyner's nonpartisan view is shared by responsible leaders in both parties.

As a representative of the Administration and the Department of Conservation and Economic Development, I should also note that in grappling with the issue we have had no pre-conceived ideas as to methods for resolving it. We have recognized its urgency. Being in a position of responsibility, we are very much interested in finding the real answer to the problem. But in the course of the studies and deliberations that have taken place over the past three years our minds have been open. We have been receptive to all responsible suggestions. This is no more than to say that we want to insure New Jersey the water supply required for its growth now and in the decades to come. With regard to methods of attaining the objective, our only insistence is that they be sound and equitable and also as effective and as economical as possible.

This brings me to the legislation you are weighing today and the report of the Water Resources Advisory

Committee upon which it is based. Before going further, however, I wish to spread upon the record my conviction that we are all indebted to the Committee for the time and effort it has devoted to the problem of utilizing the water resources of the Raritan Basin and for the hopeful approach recommended in its report. Apart from its careful consideration of suggested projects, the Committee is to be commended for focusing new attention on the possibility of the North Branch of the Raritan as a site for a reservoir on the channel. We must, of course, await refined real estate and other data before arriving at any final decision about the site in question. It is my own judgment, however, that the North Branch site is virtually a "must" in projecting a comprehensive state water plan. I hope very much that the appraisal reports will demonstrate the feasibility of its acquisition.

To return to the immediate question of Stony Brook and Spruce Run, I must as a layman, acutely aware of the dangers inherent in the water problem, be guided by the findings of professional engineers with respect to technical

aspects of the projects. As far as I know, all responsible engineers who have studied this matter concur in the opinion that the proposals are sound from a technical standpoint.

General surveys, moreover, give us every reason to believe that these undertakings are economically feasible.

No less important, is the social impact of resource development and permit me to assure you that I have given as much consideration to this as the many other factors to be weighed. In spite of some local dissent, however, my conclusion, on the basis of the preliminary and broad engineering data, is that the construction of the Stony Brook and Spruce Run reservoirs is consistent with the public welfare and, indeed, should enhance it both in the areas where the reservoir sites are located and in other areas of the state.

As I have indicated, we are aware that this legislation has encountered some degree of local opposition. I might say parenthetically that I have some friends in the Stony Brook area - perhaps I should use the past tense. I hope never, however, to see the day when State Government is

insensitive to local feeling. For this reason I sincerely regret that these proposals have been disturbing to any of the citizens living in the areas containing the reservoir sites. Our interests lie entirely in solving a serious problem facing New Jersey. In doing so, we are determined to hold the upheaval of population to an absolute minimum. We would like to avoid controversy and misgivings on the part of any individual or group. The unhappy truth, however, as we have all discovered during the past few years is that it is virtually impossible to formulate any plan for the development of reservoir sites that meets with the approval of everyone. In a densely populated state, with a small and fixed land area, these projects inevitably require changes in land use that affect at least a few citizens. A certain amount of opposition appears inescapable and is to be expected regardless of the action we take.

It would be cynical, however, to brush aside opposition in a spirit of philosophical detachment, I say this because so often the opposition is a product of misunderstanding. And in any event we are obligated to provide the public with

the facts justifying any particular project.

My own feeling is that the areas in which these reservoirs would be constructed would derive important benefits. Some residents of Mercer County, for example, are disturbed by the projected Stony Brook development. Yet this reservoir would create significant new recreational opportunities for this metropolitan region. Even more important, it would provide an additional source of water for an area that has undergone large-scale economic expansion during the post-war years and is entering what I believe will prove to be an even more substantial period of growth. With the completion of the contemplated Stony Brook reservoir, the area would be able to obtain whatever water it might need to sustain the momentum of its industrial expansion either from the reservoir itself or from the river channel downstream.

One of the organizations that has expressed reservations about the proposals is the Stony Brook-Millstone Watersheds Association. The objectives and accomplishments of this group have my respect and admiration to an extent

that I would find it difficult, if not impossible, to support any measure tending to clash with its efforts. I therefore would like to emphasize my conviction that the Stony Brook reservoir would be compatible with the Association's over-all program for conservation of the resources of this segment of the Raritan basin.

While my testimony is obviously favorable to the provisions of the legislation, I do not wish for the tenor of my remarks to seem dogmatic. My conclusions are based on preliminary data obtained in the course of broad engineering surveys. Let me acknowledge the necessity of additional information. The facts and figures now available must go through a process of refinement. Or, to express it as clearly as possible, we must go beyond the general inquiry that has led to our present conclusions. We do not have all the data we need to have; and obviously there are many questions that cannot be neatly answered at this time.

The next logical step is to gather more detailed information relating to the geology of these areas as well as

the amount of land required for the reservoir sites and the value of real estate which must be acquired. Detailed information of this kind is essential in determining the proper location and design of the reservoirs and inestablishing conclusively their general soundness. As a matter of common sense and as a matter of fairness and responsibility to everyone concerned, under no circumstances would I be willing to proceed with the purchase of land until more detailed fact and figures have been compiled.

If our department were entrusted with the task of acquiring these or alternate sites, I would not authorize the acquisition of properties until the geologic, engineering, real estate and financial data had been collected, analyzed and refined. I would give this further assurance: Our officials would proceed on such matters as the design of the dam structures and the planning of recreational facilities only after full consultation with local officials and local groups, such as the Millstone Watershed Association. Since, moreover, it is my duty to approach this issue in a spirit of frankness and

objectivity, let me say that in the event more detailed surveys raise doubt as to the ultimate feasibility of these proposals, obviously we would not proceed further with the undertaking.

In this connection I should note that if the Legislature gives a green light to these bills, we will need funds to conduct the more detailed inquiry that I have been discussing. I will not attempt to state any particular figures, for more time is needed to compute estimates. I do feel, however, this should be brought to your attention. I also feel that any appropriation for this purpose subsequently should be included as part of the cost of acquiring the reservoir sites, if that should happen, and the construction of the dams.

Now the next point I was going to make is something that Senator Lance has raised because it is my understanding that the pending legislation does not really clarify the authority of the Department in terms of its authority to relocate roads, sewer lines and other facilities. This would be necessary if the bills are approved, and we request that authority for such action be written into the final draft of the bills.

There are numerous other points relevant to the consideration of this legislation. If time permitted, I would like to go into all of these. Permit me, however, in concluding my testimony to note three items that are especially noteworthy.

1. The first of these is that under this legislation the State would assume a strictly limited role in water supply, no greater than the character of the problem demands. There is nothing here to suggest any movement towards a State monopoly in this field. We would not engage in the process of filtering or treating water. It would be sold only in raw form. The State would be doing more than making available a vital natural resource. The processes involved in its utilization would remain the function of local agencies, public and private.

2. Another item to bear in mind is that even though the Stony Brook and Spruce Run reservoirs would contribute materially to improving the water situation they represent only part of the answer. It is likely that we need both of these, and, as I have said, in all probability we also need the even larger site on the North Branch of the Raritan. We

also need Round Valley and the Wharton Tract. Inevitably, too, the day will arrive when we must be able to tap the Delaware River --- a fact that lies behind our persistent efforts to establish a realistic foundation for interstate and inter-governmental agreement on a plan for developing the resources of the Delaware basin.

If I could deviate for a moment. On this matter of the Delaware, this is going to take some years. The Army Engineers' study will not be completed probably until 1960 which indicates the time span after that to take advantage of it. This involves cooperation between not alone New Jersey and Pennsylvania but possibly a constitutional amendment in the State of New York because the waters of the Tocks Island Reservoir would fill up beyond the New York State line. There are difficult problems involved with Supreme Court proceedings.

And I think another item that I should make clear too is my own belief that we should certainly exploit to the full

if we can, the intra-state resources, within our State here, before we go to the Delaware because going to the Delaware, as I said, is still going to take a long time.

The obvious moral is that there is no single-factor solution to the water problem. We must approach it from a number of directions --- and may I add that we should waste no time in making our approach because the development of water resources must be agreed upon and planned years in advance. It is unfortunate that twenty or thirty years ago no steps were taken to formulate a broad, long-range plan for the development of New Jersey's water resources and to set aside certain land for future use as reservoir sites. Needless to say, if this had been done, we would not be facing difficulties of the magnitude that confront us today.

3. This leads me to a third and relative item --- the necessity of acting now to project a comprehensive, integrated water supply plan for the State as a whole to

spare future generations a crisis such as we must resolve. New Jersey is the most "urbanized" state in the union. Its population is large, and the rate of population increase is high. Since our land area is small, this means "more and more people and fewer and fewer acres." It also means a considerable degree of inter-dependence among regions comprising the state, and this inter-dependence is pronounced when we come to the task of satisfying our water requirements.

The only certain way of assuring every region the water it must have for its growth and prosperity is a comprehensive plan that makes provision for meeting the needs of all areas. Not until we have such a plan can we eliminate the fear of future shortages and the controversy generated by this fear. We do not have such a plan today; our efforts should be oriented toward the projection of such a program. We know that our water resources are sufficient to supply the state as a whole with all the water it needs if they are wisely developed. We should recognize also, however, that these resources cannot be wisely developed without better planning or, to put another

way, a better sense of direction than we have had in the past.

I am pleased that you are conducting this hearing, and I wish to repeat my own appreciation for the opportunity to testify. Consideration of the water problem can be productive of such controversy that the result is confusion rather than clarification. It is imperative, however, that the questions involved in the proposed legislation be submitted to public discussion, and I sincerely hope that out of this discussion will emerge clarification and a more thorough understanding of the issues at stake.

Gentlemen, I thank you and I hope that you will listen to Mr. Shanklin and Dr. Nelson, and I will try to answer any questions if you wish to put them to me.

SENATOR DUMONT: Commissioner, why do you feel that in working on the development of the Delaware River with Pennsylvania we necessarily have to await the report of the Army Engineers? We all recognize that report will be at least until 1959 or 1960 in coming in. Why can't there be bi-state action concurrently with the Army Engineers developing their report?

MR. McLEAN: Well, as I said before, Senator, as I understand, there may have to be a constitutional amendment to the State of New York which takes a long time, for one thing. This matter cropped up at an Incodel meeting just a couple of months ago and objection was offered, in fact, to the plan by a New York representative at that session. Furthermore, I think you and I both recognize that even if the Army Engineers reported today favorably upon the Tocks Island - and they gave a very preliminary kind of O.K. to it recently - that it still takes time to get action in both of our states, Pennsylvania and New Jersey.

Furthermore, there are still very painful problems of who is going to pay for this thing. As I understand it, the Tocks Island Dam would be primarily for streamflow regulation and not for water supply benefits. We would still have to construct a very expensive reservoir in the State of New Jersey, and I hope you will ask Mr. Shanklin these questions because he is the Engineer. But the cost is slightly terrific, and I say with the normal kind of

obstacles that you run into, it is going to take some time before we actually would see that water coming out of the Delaware for water supply use.

SENATOR DUMONT: Well, the reservoir that you mentioned within the State, wasn't that the purpose of buying Round Valley or at least one purpose of it?

MR. McLEAN: One purpose of Round Valley - and according to the legislative strings attached to it - was to use Delaware water only, but I still insist that it takes time, if you restrict yourself to Delaware water, to put that water into Round Valley. It is going to take some years.

SENATOR DUMONT: And since it does take time, what is the purpose of waiting until 1960 to begin the work?

MR. McLEAN: I think we can proceed and we are. We have already had meetings with Pennsylvania people in terms of drafting the joint legislation between Pennsylvania and New Jersey on Tocks Island. I think we should proceed post haste with that. And the representative of our Attorney General's office has already met with representatives from Pennsylvania, Delaware and New York.

SENATOR DUMONT: Well, so has the Legislature. You will recall we had a number of meetings with the Pennsylvania Legislative Study Commission. We also have been to Albany, as you will recall, in March of 1955 to confer with the New York Legislature. And, as I

recall it, the requirements you mentioned a constitutional amendment in New York State, as I understand it under the United States Supreme Court decrees, the two of them that have been rendered over the years, the State of New York - the City of New York today has the right to take 800 million gallons per day out of the Delaware River. Isn't that true?

MR. McLEAN: No. The problem, Wayne, involves the condemnation of properties in New York State that would have to be condemned because the waters from the Tocks Island Reservoir would spill across the State line. This is not just a matter of diverting water from the Delaware. This, at least, is the argument offered by the New York people.

SENATOR DUMONT: You mean, if the lake was backed up to Port Jervis.

MR. McLEAN: That's right.

SENATOR DUMONT: The Federal Government, as I understand it, - I want to check this with you - is interested, if they contribute financially to the development of the Delaware, they would do so only from the viewpoint of flood control. Isn't that correct? They believe that water supply is peculiarly a problem of the State.

MR. McLEAN: Senator, this has been the traditional viewpoint of the Army Engineers and I think of a good many federal government attorneys, that

flood control is the prime benefit that can be utilized in terms of getting federal financial participation. The Incodel people and some other groups that I have worked with have been in the hope of perhaps modifying tradition a little bit and trying to advocate the general economic importance of the area as an additional reason why the federal government might contribute to the Delaware beyond flood control. But there is no guarantee at the moment that this would win out. I think the comprehensive survey of the Engineers may well produce a new type of formula and new thinking for the federal people.

SENATOR DUMONT: This legislation which is now passing the Commonwealth of Pennsylvania to make an alternative of either Wallpack Bend or Tocks Island, what do you contemplate is going to be necessary with our legislation? As I understand their legislation, they contemplate repealing what they passed in 1955 which, as I recall it, they passed primarily because we went out to Harrisburg and asked them to pass some legislation. Now, if they repeal that and substitute alternatives of either Wallpack Bend or Tocks Island, then that of course means, does it not, that the New Jersey Legislature would also have to repeal the Act of '53 and substitute for it the alternative provision?

MR. McLEAN: Yes. I would assume there would be a moral obligation to go along with Pennsylvania in terms of modifying our own statute to conform with theirs.

SENATOR DUMONT: Wouldn't that be a good time also to get Pennsylvania, perhaps, to give up one or two of the advantages that they now enjoy, such as getting 70% of the water supply in the Delaware River and New Jersey gets 30%?

MR. McLEAN: Well, under the previous arrangement, we would pay 30% of the cost and they would pay 70%. If they give up 20% of the water, we would then pay 50% of the cost.

SENATOR DUMONT: Correct.

MR. McLEAN: And I think we would still have to find out the need for a supplementary reservoir of some considerable size in the State of New Jersey and pumping to it. I don't know what the overall cost figures are and I don't know whether Mr. Shanklin might know.

SENATOR DUMONT: Well why couldn't Round Valley serve the purpose of that supplementary reservoir?

MR. McLEAN: I think it might be used in that connection.

SENATOR DUMONT: Senator Crane?

SENATOR CRANE: I have this, first of all, to ask Mr. Ritter: He said some moments ago that the engineering costs of both dams would be eight and a half per cent of the total construction cost. Would you say the construction cost of both dams was about nine million dollars?

MR. RITTER: Yes, sir.

SENATOR CRANE: Well, eight and a half per cent of that, according to my high school mathematics, is $765,000. Would that amount be necessary to make a survey to bring us up to the level that the Commissioner suggests?

MR. RITTER: No, sir.

SENATOR CRANE: How much do you propose would be spent for such a survey?

MR. RITTER: It's in the category of maybe one to two hundred thousand dollars, something like that.

SENATOR CRANE: A hundred to two hundred thousand dollars.

MR. McLEAN: Senator, I might add that Mr. Shanklin - and I am not trying to pin George down to an estimate, this is a wild estimate on his part, but he threw up the figure of about a hundred thousand.

SENATOR CRANE: A hundred thousand dollars. Now was it your suggestion, sir, that we appropriate this before we pass the legislation to get the final approval, or that this be spent forthwith from the legislative appropriation and that if your finding fails to substantiate the cause, that the cause be abandoned and the money revert to the State?

MR. McLEAN: I think this, of course, illustrates the dilemma you are in when you are faced with a bond referendum in the fall and you would like to clarify in terms of fact all the information that you can prior to the fall. Now I had asked for the money, in a sense tentatively, here as soon as possible because the sooner

we get on with that job the sooner we can find out what are the facts in terms of engineering, geology, etc., and then clarify the status of Stony Brook for the benefit of the people who live there. Now I would say that you take a calculated risk if you appropriate the money now and suppose you didn't go ahead with the dam, then you have lost that money, theoretically, except you have proved something, you have no results or negative results which is a good way to do research, they tell me, sometimes. But frankly, it is a question for the legislature, it seems to me. Either you could appropriate all the money, not all of it but I am talking in the term of four or five million dollars, immediately for acquisition but always with the proviso that you don't acquire land until it has been proved through the complete engineering and real estate and other data. That would be one approach. The other is the approach, I would say, of getting some of the money now for these completions of engineering data prior to November as a way of helping all of the people of the State to decide on the bond referendum.

SENATOR CRANE: Well it has been stated by Mr. Ritter, I believe, that the T.A.M.S. survey and his survey constitute normal procedure before proceeding toward construction --

MR. McLEAN: That's correct.

SENATOR CRANE: -- and we know this T.A.M.S. survey, especially, cost the legislative group in excess of a hundred thousand dollars, did it not? a hundred and

sixty-five thousand dollars, and it is your proposal to expend further one hundred thousand dollars or more to gain more specific facts.

MR. McLEAN: And I would say that I make this proposal tentatively, Senator, and I would suggest then that that money be allocated to the overall costs of the projects on the ground that they would be self-sustaining and self-liquidating, and hence the cost ultimately would have to come out of the operation of the projects and not out of the taxpayer.

SENATOR CRANE: Well, Mr. Ritter, you established that this cost was covered in the request for the $14,000,000, did you not?

MR. RITTER: Yes, sir.

SENATOR CRANE: Well then, Commissioner, if I could ask you this direct question: You spoke to the authority which Senator Lance said was missing - if we are to amend the act, is the type of authority you request in the Round Valley proposal?

MR. McLEAN: It was in the Chimney Rock proposal.

SENATOR CRANE: Chimney Rock, excuse me.

MR. McLEAN: The authority, Senator Lance, on the matter of relocating roads and so on, I am pretty sure was in the Chimney Rock legislation.

SENATOR LANCE: Except there is a difference between the words authority and duty.

SENATOR CRANE: Well do you believe, Senator Lance, that there could be a specific clause that would take care of

your objection?

SENATOR LANCE: Well, if you want to -- you are talking about roads?

SENATOR CRANE: Roads and bridges, sir.

SENATOR LANCE: All right. If you are talking about roads and bridges and you want the legislature to do something you should say so.

SENATOR CRANE: Well what I am trying to find out, for the purpose of amendment, the Round Valley -- or the Chimney Rock proposal is not quite sufficient; you would like to spell out the duty in that provision.

SENATOR LANCE: Well, the Round Valley proposal, the Round Valley bill which is now law, in 1956, imposed a mandatory duty upon Commissioner McLean to relocate the roads for municipalities and counties. Does that clear that point up?

SENATOR CRANE: Yes.

SENATOR LANCE: Now, point two, what did Round Valley do on taxes? There are many ways you can approach a formula for reimbursement. You will get as many ideas as different people whom you talk to. The field is limitless. What actually happened in the Round Valley legislation was that the local municipality was reimbursed for loss of taxes on bare land only, and the Governor vetoed the bill which would have reimbursed the municipalities for loss of ratables on buildings, and never at any time was there any discussion about loss of ratables on personal property. So, if you are talking

about a formula which ties down to the time of acquisition, you ask three questions: What is the reimbursement for personal property? Nothing or whatever you say. Second, What is the reimbursement for buildings? Round Valley gets none. Third, it leaves you under the Round Valley legislation merely reimbursement for bare land which is what I would call peanuts.

SENATOR CRANE: But you concede that there is some language that would overcome this difficulty?

SENATOR LANCE: Well, you can write as many tax-reimbursement clauses as you have people to assist you. The clause which I would have liked most on Round Valley would have been for personal property, land and buildings, based on an inflated value as time goes on. I don't think anybody is going to give me that. It's nice to talk about but you are not very practical. Now reimbursement as it has existed elsewhere has frequently tied the value down to the time of acquisition. The Governor did, however, veto the bill which would have given the local municipalities reimbursement for buildings, and I think as everybody knows in a rural area the value of their bare land as the tax assessor assesses it is terribly low. Your money comes out of your residences and your buildings which are called improvements. Now it has been suggested also that a reimbursement clause be inserted, based on revenues.

SENATOR CRANE: Well, what I wanted to bring up, Senator, do you believe that we could formulate some

paragraph that, as I stated this morning, your County of Hunterdon has quite a problem which I recognized, in that a great deal of your land is taken up by tax-free State and county institutions - do you feel that we could provide such a paragraph that would satisfy both Hunterdon and the residents around Stony Brook, that might also be acceptable to people around the rest of the State, or do you believe there has to be some compromise?

SENATOR LANCE: Well, the Legislature to a degree did that once and the Governor vetoed the bill. Now you'll have to go see the Governor.

SENATOR CRANE: Well we haven't had him here today. I'll come back to one last question to the Commissioner.

MR. McLEAN: I would never want to come between two Senators like Lance and Crane.

SENATOR LANCE: We might state for the record for you Princeton people that Commissioner McLean, Senator Dumont and I are all Lafayette graduates even though we don't always agree.

(Laughter)

SENATOR CRANE: I would like to make a statement for the record. I have never seen so many Princeton people, short of being at the Princeton-Dartmouth game, either, sir.

(Laughter)

SENATOR CRANE: Commissioner McLean, one last question, please. You mentioned recreational opportunities and I think that this is somewhat of a vague issue when we

are considering water. Was it your idea that we could have fuller recreational use of these facilities without the usual prohibitions because we are producing raw water only?

MR. McLEAN: I think this would overcome one of the traditional objections to utilizing water supply areas for recreational purposes.

SENATOR CRANE: You see recreational values, do you?

MR. McLEAN: This is my understanding based on advice from people in the Department. They naturally don't have a nice, neat precise plan. For example, one possibility lies, if you have a two level structure here for your reservoir it would determine a little bit some of this problem that has been mentioned before of say a muddy kind of bottom showing at certain times of the year. At least, it could have an effect upon it as I understand it, and I don't pretend to be an expert on just what kind of recreation --

SENATOR DUMONT: They can't hear you upstairs.

MR. McLEAN: I was going to say that the reason I put into my little brief testimony here, the fact that I would want to consult with local people and local officials, for example, the county. Mercer County, in this case, would be interested I am sure in proper recreational facilities and planning for the area. The people in the townships involved would be interested. And I would say that any program of recreation would have

to be planned jointly in consultation with the local people. Mr. Ritter I know can bring to bear here experience that he has had in other states, as to what types of recreation you can have here in terms of boating and what-not.

SENATOR DUMONT: Senator O'Mara.

EX SENATOR O'MARA: Commissioner McLean, you emphasized the fact that the information that was available is - you didn't use the word sketchy but insufficient.

MR. McLEAN: Insufficient, right.

EX SENATOR O'MARA: And that you certainly would not proceed, if the duty were placed in your department, with the acquisition of property and construction of the dam without far more detailed information from a geologic standpoint, from the standpoint of cost acquisition, engineering, etc.

MR. McLEAN: That's absolutely correct, Senator.

EX SENATOR O'MARA: I am not clear, however, whether or not you expressed an opinion as to whether in your judgment it would be a proper thing to submit to the people a referendum for a $14,000,000 bond issue in the absence of this detailed information.

MR. McLEAN: Senator, the point I would like to make is - I mentioned broad, insufficient data. It is my understanding, again relying upon the advice of engineers in our department, - not from outside but water engineers in our department - that the odds are all in favor of the feasibility of this project. I hate the term strategy vs. tactical or something in here, but the

indications from an engineering standpoint are that the overall project is sound. Now, actually, I wouldn't know precisely where the dam should be constructed, or dams; just what the level ought to be, the taking level and so on. These would be determined by the more refined engineering data that would follow what has already been collected. And I think - again I hate the term "calculated risk"-- I would say if in the last one percent of the data you collect that something should turn up and say this is not feasible, it would be stupid and asinine to go ahead and construct the dam.

EX SENATOR O'MARA: Suppose, for instance, a subsequent examination should disclose that the value of the land to be taken is far in excess of the figure submitted in this tentative report, do you think it would be quite fair to submit to the people a referendum on a bond issue which is based upon this tentative information and subsequently it might develop that the information was totally inaccurate?

MR. McLEAN: Well, if you say something is totally inaccurate, that's one thing.

EX SENATOR O'MARA: Well, greatly inaccurate. Not totally but grossly inaccurate.

MR. McLEAN: Grossly inaccurate. Here again, Senator, relying again on our water engineers, I am told that the amount of money allocated tentatively for real estate acquisition could be doubled or whatnot, and the overall project would still be feasible from an economic

standpoint. So that the refining process could go pretty far, actually, before throwing the project out the window, in that sense.

EX SENATOR O'MARA: Well, do I take it that in your judgment the information presently at hand is sufficient to submit to the people the question of adoption of a referendum?

MR. McLEAN: I believe so.

EX SENATOR O'MARA: You do. All right.

SENATOR DUMONT: Any further questions of Commissioner McLean? Senator Lance.

SENATOR LANCE: Commissioner, in the past I believe you have been a strong and vigorous advocate of building Round Valley. Is that correct?

MR. McLEAN: Yes.

SENATOR LANCE: Assuming Round Valley could use Raritan River water, how soon would you say they should start building the reservoir?

MR. McLEAN: Here I hesitate to inject my judgment above the engineers but I would say somewhere in the 7-10 year period perhaps. And this is a guess on my part. I think a lot depends on whether the people are going to approve these two possibilities. I don't know if the North Branch site, that I mentioned previously which might have a thirty billion capacity - and I think George Shanklin might better answer this - might be tied in with the Round Valley Project as part of an

integrated water system. These are imponderables at the moment.

SENATOR LANCE: Does that represent a shift in your views from, let's say, a year ago?

MR. McLEAN: I would say to this extent, Senator, that I didn't consider, myself, the possibilities of the concept of the raw water idea, utilizing the on-river possibilities of the Raritan. At least I didn't give it full consideration at all. Now this has emerged since the defeat of the Chimney Rock referendum and the necessity for doing some fresh and new thinking, perhaps, based on some old possibilities, and this has emerged from the Advisory Committee on Water Resources.

SENATOR LANCE: But at the time the Legislature passed the Round Valley legislation, last year --

MR. McLEAN: That's correct.

SENATOR LANCE: -- you advocated it as a project for giving the people of New Jersey water now, did you not?

MR. McLEAN: Absolutely, yes. As soon as possible.

SENATOR LANCE: But as soon as possible didn't mean to you 7 or 10 years away when you --

MR. McLEAN: It meant sooner than that if possible. That's right. It meant quicker than that. Although obviously it takes a good five or six years from the moment you pass legislation before you really get a large structure in operation.

SENATOR LANCE: Well maybe we don't understand each other. It might take five years to build Round Valley, isn't that correct?

MR. McLEAN: That's right. I believe so.

SENATOR LANCE: By that I mean the dam, number one, and, two, a pipe line six feet in diameter from Lebanon, New Jersey, to perhaps Elizabeth.

MR. McLEAN: But let me say, Senator, that in the case of Round Valley we haven't resolved - with what Senator Dumont has indicated earlier - we have not yet resolved the matter of getting Delaware water.

SENATOR DUMONT: They can't hear you, Commissioner.

MR. McLEAN: I'm sorry. We have not yet resolved the possibilities of getting Delaware water to tap into Round Valley, so that you would have to get those strings cut by the Legislature before you could put Raritan water in the Round Valley, and I don't know how soon the Legislature would move on that. I am also informed that, again by our water engineers, we are going to need the on-river sites that have been proposed, and probably including North Branch site as well as Round Valley, as well as the Delaware, for the ultimate supply of the water needs of our people. So that the question now of shifting, perhaps phasing on the whole Raritan because of this project being introduced, but this project makes sense in principle to me. And, if we can't get Round Valley immediately, we have got to take something that is going to fit anyhow into an overall development of

the Raritan. The fact remains that even Round Valley could not really answer the problem of preventing the waste of Raritan waters.

SENATOR LANCE: One more question, Commissioner. Is it your view that Round Valley is impractical unless Delaware waters are used?

MR. McLEAN: No, I don't say that at all. I think Round Valley will some day, with the blessings of the infinite wisdom of the Legislature and so on, - the strings may be cut and you will have a combination some day of Delaware and Raritan water going into Round Valley. This is a possibility. I can't predict it but I think it is possible.

SENATOR DUMONT: Commissioner, you keep mentioning about the Legislature cutting the ties, the restriction of using Delaware River water only in Round Valley. Now, even assuming that were not done, isn't there an alternative in aggressive, positive action by the Executive Branch of this State Government as well as the Legislative Branch, in working with the Commonwealth of Pennsylvania and developing a program quickly for the development of the Delaware River? We have plenty of historical material to work with from Incodel and we have a Legislative Water Study Commission in the Pennsylvania Legislature, which we were primarily responsible for getting them to create in 1955, and we also know that they have appropriated over there, as I understand it, a half a

million dollars for the purpose of buying up land that would be inundated by the construction of a dam at either Wallpack Bend or Tocks Island, buying them up in time so that they won't become fully developed at a later date. Now, why isn't there action that can be taken by both branches of the State Government concerned in an effort to bring about this development with the Commonwealth of Pennsylvania?

MR. McLEAN: First of all, let me say this, Senator, the Executive Branch I think has moved with all possible speed and dispatch in terms of the Delaware. I serve on Incodel and when I was appointed to it I found out that five of the six standing committees had been dormant for years, and the record of Incodel in terms of water supply had been barren of results. We are trying to reactivate Incodel all the time. In addition, the Governor of this State has joined with the Governors of Pennsylvania, New York and Delaware, and with Mayors of New York City and Philadelphia in establishing the Delaware River Basin Committee, an advisory committee consisting of six individuals, working in turn with Delaware River Basin Research Incorporated, a non-profit corporation, and we have worked with that body and have obtained a fund from the Ford Foundation in the amount of $130,000 for study of the kind of administrative and governmental organization you would have to have to run the Delaware. We are working on that. We have testified

and have helped persuade Congress to give money to the Army Engineers to expedite their survey. In fact, we would not have had it, I don't think, if Governor Meyner had not testified, last year and this year. We have worked closely with our counterparts in these four states. But I would still say to you, Senator, if you focus entirely on the Delaware, which is still a long-range proposition, what are we going to do about the eight or nine hundred million gallons daily that run out to the sea from the Raritan, because we are going to need those. And that is the reason we cannot afford to ignore that phase of our -- You, yourself, I recall, two years ago --

SENATOR DUMONT: I don't disagree with you at all that we have to get to this interim solution, but inasmuch as everybody concedes that the Delaware River is the long-range solution, I think the sooner we get on with it the better.

MR. McLEAN: I concur entirely.

SENATOR DUMONT: Any further questions of Commissioner McLean?

SENATOR LANCE: One more question.

SENATOR DUMONT: Senator Lance.

SENATOR LANCE: Commissioner McLean, when would you advise that the public vote on a Round Valley bond issue? what year?

MR. McLEAN: On the Round Valley bond issue? Frankly, I don't know. I would want to wait. This ties

in with your question previously as to precisely what year we would be ready for Round Valley. This is going to be determined in part by the speed with which we move on these projects and by the wishes of the people of North Jersey and elsewhere, whether they want what quality of water where. So that I would still say this will three, four, five years off. I don't know.

SENATOR LANCE: Well, you are saying perhaps five years from now the State ought to vote on the Round Valley Bond issue.

MR. McLEAN: This is possible.

SENATOR LANCE: And then it will take another five years to build it.

MR. McLEAN: We can accelerate that when the demand shows it. But the big point about all of this is that you have to acquire your sites and reserve them for water use, otherwise you are licked. Some of the finest sites for water supply have already disappeared because they have been built up either with industry or industrial or residential developments of one kind or another. And if you don't reserve the sites then you are licked for the longterm haul.

SENATOR LANCE: Well, Commissioner, did you sell to the public the Round Valley project as a proposition where you would buy the land and then ice it for some future long-distance use?

MR. McLEAN: I didn't sell the public on Round

Valley with strings attached. I was in favor of the Round Valley project as originally offered which have tapped Raritan water immediately and eventually would have tapped some Delaware water for the two hundred million gallon stage development, which makes a lot of sense to me.

SENATOR DUMONT: Any further questions?

Thank you very much, Commissioner. Now, before you leave, I would like to inquire of you whether it would be possible to hear Mr. Shanklin and Mr. Nelson next week. We have some witnesses who have signed up here, who cannot come back next week. It looks to me as though even if we terminate it at five o'clock, which is the time we had hoped to, we probably could not get to hear more than those two witnesses further this afternoon.

MR. McLEAN: I don't control Mr. Nelson at all. He is a quasi judicial officer in the Department and I would have to put that up to him. And I don't control George either, but George, I am sure, would try to be available next week, if that's the wish of the Committee.

MR. SHANKLIN: Would it be held on Thursday?

SENATOR DUMONT: Probably.

MR. SHANKLIN: That is our Council meeting day.

SENATOR DUMONT: That is your Council meeting day?

MR. McLEAN: Oh, it's a bad day for them.

SENATOR DUMONT: Do you have to meet all day?

MR. SHANKLIN: Beginning at 9 o'clock in the morning

until 4 o'clock in the afternoon. We have two hearings scheduled in addition to the meeting.

SENATOR DUMONT: Well, you could still be available between four and five, if necessary. Is that right?

MR. SHANKLIN: Yes.

SENATOR DUMONT: What about you, Mr. Nelson? Could you be available next week again?

MR. NELSON: Senator, except for Thursday, I am at your service.

SENATOR DUMONT: Commissioner, I have one question for you, I think, before you go. Just let me check these witnesses further.

Mrs. VanDyke, how long will you want this afternoon?

MRS. VAN DYKE: I will be glad to defer my remarks and give my time either to Dr. Nelson or Mr. Shanklin. I can come back any day next week.

SENATOR DUMONT: Are you sure it is not inconveniencing you?

MRS. VAN DYKE: No.

SENATOR DUMONT: Mr. Chapin, you want to go on this afternoon, right?

MR. CHAPIN: Yes, I would like to.

SENATOR DUMONT: Mr. Voorhees, this afternoon.

MR. VOORHEES: Yes.

SENATOR DUMONT: Mr. Large, this afternoon?

MR. LARGE: If you please. It will only take me about five minutes.

SENATOR DUMONT: Mr. Kean, what about you?

MR. KEAN: I think I can arrange to come back.

SENATOR DUMONT: You can come back next week?

MR. KEAN: Yes.

SENATOR DUMONT: Mr. Nelson, how long would your testimony take, today? Approximately how long would it take today?

MR. NELSON: I have only three pages, sir.

SENATOR DUMONT: Well, suppose you testify now. On your way up I want to ask Commissioner McLean this one question: From Mrs. Nelson Bigelow in Round Valley, Commissioner. Would it not be possible to develop the Hamden source of water until the day when Delaware River water could be brought in?

MR. McLEAN: I would like, if I may, to defer that to George Shanklin as an engineering question, rather than pass hasty judgment on it.

SENATOR DUMONT: I thought we were going to hold him until next week.

MR. McLEAN: Well, I would like you to hold the question, if you would, until next week. I think it is an engineering question.

SENATOR DUMONT: Well, maybe Mrs. Bigelow can't come back next week.

MR. McLEAN: I don't pretend to be an engineer.

SENATOR LANCE: Well, Joe, I don't think there is any secret in Hamden. Hamden is the place where everybody

has said the South Branch of the Raritan would be tapped. There is no magic in the word Hamden. Her question is -- read the question over.

SENATOR DUMONT: Would it not be possible to develop the Hamden source of water until the day when Delaware River water could be brought in?

SENATOR LANCE: What the lady is asking is - would it not be possible to develop the South Branch for Round Valley. There is no magic in the word Hamden.

MR. McLEAN: George?

MR. SHANKLIN: Yes.

SENATOR DUMONT: The answer is yes, from Mr. Shanklin.

SENATOR LANCE: Now, Joe, one final question. Maybe I didn't make myself clear. Assuming the Legislature took off the Raritan River restriction, how soon would you say the Round Valley project should go on the ballot? what year?

MR. McLEAN: I would say a lot sooner than I was thinking about when you first raised the question, because this modifies completely, it seems to me, the thinking of the Water Committee, for example, because they have had to go on the basis presumably for the immediate future that the strings would not be cut. Now how far this will mean pushing on this phase or stage of development of the Raritan and then how far you can move in from the other direction, that is with Round Valley, I don't know. But

this would have to be considered by our engineers. But you are raising what may be a hypothetical question - I don't know, I am not sure, but it would speed up certainly the thinking about Round Valley and I know that Mr. Shanklin shares my view that Round Valley is an integral part of a comprehensive development of the Raritan Basin.

SENATOR DUMONT: Any further questions of Commissioner McLean? Thank you very much, Commissioner.

MR. McLEAN: Thank you, sir.

SENATOR DUMONT: Mr. Nelson.

DR. THURLOW C. NELSON: Mr. Chairman, Members of the Committee, Ladies and Gentlemen: I am Thurlow C. Nelson of Cape May Court House, Chairman of the Water Policy and Supply Council since 1945 and continuously member of this body and of its predecessor the State Water Policy Commission since its creation in 1929. Since we are a quasi-judicial body with important cases now pending before us for additional water diversions in the Raritan Valley, it would not be proper for me to discuss the specific reservoir sites designated in the bills now being considered.

There are, however, several matters of policy of grave moment to our people which should be considered in the drafting of a proposed law to govern the development of any area of unappropriated watersheds within our State. In the 28 years during which I have been a member of the two water control boards of our State there have been numerous attempts to secure additional new major

water supplies for areas of critical need. Nearly all have failed for the reason, in my opinion, that insufficient consideration has been given to the future water needs of the people living in the areas of origin of the water proposed for development. In what follows I speak as an individual. No approval of this statement has been given by the Council.

Our basic water law of 1907 which for 50 years has stood the test of time and has adequately protected our people through all the changing conditions of the first half of this century is very specific regarding the water rights of residents in the areas of origin. The law reads as follows: "The Commission shall determine "whether ..... whether the reduction of the dry season flow of any stream will be caused to an amount likely to produce insanitary conditions or otherwise unduly injure public or private interests and whether the plans are just and equitable to the other municipalities and civil divisions of the state affected thereby and to the inhabitants thereof, particular consideration being given to their present and future necessities for sources of water supply." May I for emphasis repeat the last two lines, "particular consideration being given to their present and future necessities for sources of water supply."

We of the Council are bound by this legislative enactment. In the spirit and in the letter of these provisions should we not therefore include in both bills 272 and 273 a separate provision which guarantees to the residents whose future water supplies must come from streams to be impounded, full consideration in the allocation of the waters to be stored?

Our rural areas are rapidly building up. I am concerned by the lack of planning within most of these areas for their own future water supplies. Here the state has a golden opportunity, by impounding a portion of the vast flood flows of the Raritan now wasting to the sea, to secure critically needed additional

water supplies for our cities and for industrial areas, while at the same time acquiring storage sites within which can be held flood waters for release downstream during dry weather and to supply the future needs of the residents of the areas of origin of said waters.

These rural areas building up rapidly face difficult financial problems for new schools, sewer systems, and other vital needs. The state by acting now can secure required reservoir sites while still available, holding them for development as required. A single flood on the Raritan-Millstone rivers during the last days of 1948 and the beginning of 1949 passed our automatic gaging station at Bound Brook in volume which in less than four days would have filled every major reservoir in northern New Jersey to overflowing, starting with dry basins in each.

One final word touching the hopes expressed by some that all the future needs for additional water for northern metropolitan New Jersey can be met through diversion from the Delaware River. To be sure, substantial amounts will ultimately be developed from this source, but they would be insufficient to meet all future requirements. I speak as a scientist whose major activity during the past 37 years has been with biological and hydrological conditions in the lower Delaware Valley. I was a principal witness in the Delaware Diversion Cases before the United States Supreme Court in 1929-30 and in 1952-54. The 800 million gallons daily diversion allowed New York City under the second decree will shift the salinity line in upper Delaware Bay approximately a mile and a half upstream. Each further diversion will still further advance the salt line to the north, regardless of any formula of release of compensation waters. To the vast industrial empire now building and to be built in the area below Camden-Philadelphia, location of this salt line is of vital importance. Industries there and on the Pennsylvania side applying through their respective states at the foot of the open decree of the Supreme Court could at any time restrict or even stop future diversions from the river.

We face a momentous decision. If we act now and in the near future we can construct storage on the flow of the Raritan Valley which now furnishes but 20 million gallons daily of water supply in dry weather, so as to approach eventually the present reliable dry weather yield of the almost equivalent Passaic Valley of 300 million gallons daily. If we delay too long securing the needed reservoir sites the price may eventually be so high as to make difficult ultimate amortization of the costs of such impoundments.

Can we not now enact legislation with the vision of those who in 1907 gave us a body of water law which is considered by waterworks operators of the nation to be one of the best in the United States and which in equal measure will protect the rights of all our people during the second half of the 20th Century?

I thank you.

SENATOR DUMONT: Are there any questions that anyone desires to ask of Mr. Nelson?

Thank you very much, Mr. Nelson.

Let me check briefly on some more witnesses here.

Mr. Heatherington, could you come back next week?

MR. HEATHERINGTON: I don't believe so, no.

SENATOR DUMONT: You are going to do this by letter?

MR. HEATHERINGTON: I will have to.

SENATOR DUMONT: How long would your testimony take?

MR. HEATHERINGTON: Very few minutes, sir.

SENATOR DUMONT: Mr. Hauck, what about you?

MR. HAUCK: I can come back, Senator.

SENATOR DUMONT: You can?

MR. HAUCK: Yes, sir.

SENATOR DUMONT: Mr. Seiffert, you want to go on today?

MR. SEIFFERT: It is not imperative but I would like to.

SENATOR DUMONT: Well, you won't take long you told me, I think.

MR. SEIFFERT: About five minutes.

SENATOR DUMONT: Mr. Haines?

MR. HAINES: Two minutes.

SENATOR DUMONT: Can I count on that?

MR. HAINES: Yes, sir.

SENATOR DUMONT: Mrs. VanDyke, it is all right for you to come back next week?

MRS. VAN DYKE: Yes, sir.

SENATOR DUMONT: You are sure, now?

MRS. VAN DYKE: Yes.

SENATOR DUMONT: Mr. Kean, the same way?

MR. KEAN: Yes.

SENATOR DUMONT: Mr. Shanklin, you can come between four and five next week? Is that correct?

MR. SHANKLIN: Yes. I will try to be here a little before four, as soon as I can.

SENATOR DUMONT: Well, there are a few of these folks who are in opposition and we will have to take them out of order today, but first we will hear from one or two - I guess we have three proponents yet.

Mr. Chapin.

MR. CHAPIN: I am not in opposition.

SENATOR DUMONT: No, I said we will hear from two or three proponents before we get to the opposition.

MR. ARTHUR CHAPIN: Senator, my name is Arthur Chapin. I am here representing New Jersey State CIO Council.

I would like to preface my remarks by saying that Mr. Paul Krebs, the President of the New Jersey State CIO Council serves as a member of the Water Advisory Council; however, I have been sitting in for him on most of the Council meetings.

I am Human Relations Director for the New Jersey State CIO which represents more than 250,000 CIO members in 400 local unions throughout the State of New Jersey.

The New Jersey State CIO has a particular interest in the passage of the two water bills, Senate Bills Nos. 272 and 273 being discussed publicly today. We all can agree that this legislation may be the most important for the continuance of job opportunities in our State. I think I can say without attempting to be dramatic that we really stand on the threshold of a

great decision for a long range plan for the development of greater public resources. What the legislators do with this opportunity and how you will meet the challenge will largely reflect whether water can be supplied to the people of our State.

Since our state has been growing in population at a rapid pace, we can not use the theory that water will continue to flow from the heavens, refilling our reservoirs without adequate planning for the collection and prevention of loss of this vital water supply.

The proposal before the Senate makes sure that some of the surplus water will be collected in two up-river reservoirs -- Spruce Run and Stoney Brook -- in the untapped Raritan Basin.

The Raritan area is ripe for development. Water can be gotten from these areas within about three years of the date of authorization of this project.

This new water supply is near a critical area for workers and families in the highly populated and highly industrialized north-eastern metropolitan counties of New Jersey extending from the New York border to just south of the Raritan River.

The area represents the employment of most of the labor force in New Jersey. Also in this area are most of the industrial firms that put New Jersey first in America in chemical production as well as the largest petroleum, rubber, tobacco, food processing production, leather and

transportation equipment.

New Jersey falls among the first IO states in the nation in all these fields of production and all of them require high quantities of water.

New Jersey at one time was the textile center of the nation but in recent years many plants have migrated to other areas. This has resulted in the loss of thousands of jobs for New Jersey workers as well as a decline in purchasing power in some New Jersey communities. In many cases the community has had to bear the cost of partial support of families made needy by the loss of these jobs.

Unless new water resources are found, additional industries may be forced to leave the State of New Jersey further jeopardizing the earnings of workers and their families.

In view of these facts, this legislation should be adopted immediately. A collection of information on available water resources and new water supplies in our state should be continued.

We feel that the administration of this act should be by a State Department for the interest and welfare of all the people and since water is a natural resource, these natural resources should be developed to meet the needs of a growing population.

In addition, working people in our state are entitled to the recreational facilities on a public basis which the creation of additional reservoirs would open up.

Thank you, Mr. Chairman.

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

SENATOR CRANE: No questions.

SENATOR DUMONT: Thank you very much.

Mr. Seiffert. Morgan R. Seiffert, Middlesex County Water Advisory Committee, and also representing North Brunswick Township. Is that correct?

MORGAN R. SEIFFERT: That is correct, Senator.

Mr. Chairman, Senators Crane and Lance, as a little background I might say that I previously served as a member of the old Delaware and Raritan Canal Commission for years and in that capacity and others I think I might have at least a passing acquaintance with the water problems of the State of New Jersey.

Now, speaking first for Middlesex County which comprises approximately 25% of the Raritan River watershed and has a vital interest in the provision for future essential water supply. As has been stated here already today, recent surveys have established that our County is one of the fastest growing industrial as well as residential areas in the nation. Without question, it is presently witnessing the greatest growth in the location of industry in the State of New Jersey. Recent study by the Middlesex County Planning Board demonstrates that the predicted growth in population will be in excess of 100% between the period of 1954 to 1975, and it should also be noted that 86% of the area of this County lies within the Raritan basin.

Now speaking with respect to North Brunswick these same studies show that the predicted growth in population will be in excess of 400% between the period of 1954 to 1975.

Recently, at a hearing before the Division of Water Policy and Supply on applications for water from the Delaware and Raritan Canal, Mr. Jack Chung, the Industrial Manager of the Pennsylvania Railroad, testified under oath that North Brunswick was perhaps the finest site for the location of new industries on the whole line of the Pennsylvania Railroad between New York and Washington and New York and Pittsburg. In fact the Pennsylvania Railroad within the last two years has purchased approximately 1,000 acres of land in North Brunswick lying on either side of the Railroad between U.S. Route 1 and U.S. Route 130, two of New Jersey's main highways.

So we in North Brunswick are presently before the Division of Water Policy & Supply for application for a diversion of thirteen and a half million gallons per day from the Delaware & Raritan Canal for the immediate future, and that, of course, will not take care of our potential need.

At the present time the County, excluding a relatively small area thereof which has a limited well supply and New Brunswick and its environs which is in part supplied by Farrington Lake or Lawrence Brook, must depend upon water sources located without the County.

The well supply of the eastern end of the County from Farrington Sands has reached its maximum capacity and already there has been damage done by the intrusion of salt water. This situation may be improved considerably by the construction of a low-level dam on the South River or alternately on the Raritan River which would be designed to prevent the intrusion of the damaging salt water and serve a valuable recharge facility. This was already mentioned by Mr. Montney of the Planning Board this morning.

Insofar as Lawrence Brook at New Brunswick is concerned, this source has been developed to its maximum capacity and New Brunswick and several of the adjacent municipalities including North Brunswick and East Brunswick at the present time must rely upon the waters of the Delaware & Raritan Canal for their supply, and this is, of course, a diminishing supply.

It naturally follows that the future growth of Middlesex County is directly dependant upon the development of new sources of water from the Raritan River together with the limited supply which is now and may become available from the Delaware & Raritan Canal. There are no alternate sources.

The Water Advisory Committee of which I am a member, of Middlesex County, has carefully considered the report of the New Jersey Water Resources Advisory Committee, which incidentally has done such a splendid job, including the recommendations for both the development of on-river storage

dams and ground-water surveys in which the County has a large stake, as has been stated.

At this point I would like to interject that we think the program of the Committee in respect to these ground water studies should be accelerated so that we may have the benefit of their findings at the earliest possible date and we recommend that the Legislature give every support in financing this project.

It,(The Water Advisory Committee of Middlesex County), heartily endorses in principle the basic program provided by the report and enabling legislation for which this hearing is held. The state can no longer waste the great flow of potentially potable water which now floods from the Valley into the Atlantic Ocean, as described by Dr. Nelson. The recommendations of the Advisory Committee are a modest yet a very important step toward providing necessary supplies for the period of the immediate future for Central New Jersey. Failure of this program and greater delay may well cause a withering away of one of the most promising growths that is now blossoming in our Garden State. Unless there be early Raritan River developments, economic retrogression will be the inevitable result.

May we ask our neighboring Mercer and Hunterdon Counties to take a broad look at the interest of the state at large and the imperative needs of its sister counties. Objections may always be conjured which are many times imaginary or visionary, and, of course, also may have substance.

A reservoir of pure water with a protected and planted circumferal area can be a beautiful rather than an undesirable asset.

And in this connection may I suggest that as to these draw-down areas modern dam construction provides a line of the area where the water may be drawn down so as to avoid mud and mosquito breeding areas. Its contribution can be augmented as has been recommended by the report by properly regulated recreation. It is suggested to our friends in nearby counties that with proper precaution provided by the Division of Water Policy and Supply upon whose judgment we must rely, these reservoirs may be wholesome rather than unsavory.

With regard to the specific legislation, which is the subject of these hearings, we have the following comments to offer, and on some of these subjects allusion has already been made today:

Attention is first called to Section 2, Paragraph (g). This section contained in both bills appears to guarantee a substantial and desirable minimum flow in the Raritan River, a flow which will be available to industrial and other riparian users for their particular purposes. Although there is no designation of the quantity of water which will be available for sale for potable use, these users under the legislation will have to pay the full cost of amortization, operation and maintenance of the projects.

Referring to page 18 of the Advisory Committee's report it appears that in the case of Spruce Run, for example, 90 m.g.d. will be the sustained minimum flow and only 60 m.g.d. will be available for sale. For this reason, we think that the Legislature should consider the possibility of charging the industrial and other riparian users for some portion of the benefit to these users by reason of the increased minimum flows which will be made possible as the result of the projects. It would seem that these users would not object to paying some portion of the benefit they thus derive.

With regard to paragraph 7, on page 6 of the Reservoir Bill, it appears that no allowance has been made to permit a deficit in the net revenues for even a short period of time while the projects are being developed. It would be undesirable to have further development cut off because of the fact that there may not be in the first instance sufficient purchases of water in order to provide net revenues sufficient to meet the annual payments of principal and interest required, without making the charges prohibitive. It is suggested the legislation should be made more flexible than as presently drafted.

With respect to reimbursement to municipalities, I think it has been recognized that an amendment to the bill is desirable.

Now, on behalf of the Township of North Brunswick and adjacent areas, we also urge that construction of the Stony Brook Dam be simultaneous with that of Spruce Run.

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Some question has been raised about the sale of water. When we witness the present growth and the projected growth in Somerset and Middlesex Counties and elsewhere in Central New Jersey, there can be little question that all the water that is made available will shortly be in use. If industry is to know that within some period of three years this additional water supply will become available, it is very easy for them to plan for the future.

Now, Mr. Chairman, we would like to, as the others have, reserve the right to make other suggestions for this legislation such as, for example, on the question of condemnation with which subject I am quite familiar, as Senator O'Mara knows.

I think perhaps there may be some clarifying provisions with respect to the provision of eminent domain. But, since the question was brought up today that there might be delay by reason of the fact that there could not be all negotiated purchases of property, I want to point out that presently the bill provides the proper provisions in this regard. In line with modern eminent domain legislation there is a provision known as a declaration of patent whereby the State, upon making a reasonable deposit of the amount estimated as the value of the property, may file a declaration of a taking and immediately take possession of the property. The property owner is entirely protected for, if on hearings before the Condemnation Commissioners or later in the courts a greater verdict is given to the property

owner, they get the full amount together with the legal rate of interest of six per cent.

In conclusion, one other subject that came up today was the question, Senator Crane, of the relocation of roads. As I read definition C on page 3 of the bill, the cost of the project, I think probably would include the cost of relocation of roads and utilities and particularly that phase at the end of the paragraph which says: "all other expenses necessary or incident to the financing, acquisition, construction, and development of such water supply facilities."

Now, of course, it would be immoral if not illegal for the State not to reimburse municipalities or counties for the relocation of roads and, so far as utilities are concerned, I think it would naturally be clearly illegal. However, I have a suggestion to make with respect to this legislation and I would refer you to the New Jersey Turnpike Authority Act with which I am familiar. There is a special provision there whereby it is required and it is fully set forth that the Authority, in that case it would be the State here, would pay properly all these expenses. That is a section of the New Jersey Turnpike Authority Act with respect to location.

In conclusion, gentlemen, with these comments we heartily endorse the basic program of the bills and urge favorable action by the Legislature.

SENATOR DUMONT: Are there any questions to be asked of the witness?

Thank you very much.

SENATOR DUMONT: Henry S. Haines, Chairman, Water Resources Study Committee of New Jersey Association of Real Estate Boards.

HENRY S. HAINES: Mr. Chairman, We are grateful for the opportunity to express our views at this public hearing on this subject.

The New Jersey Association of Real Estate Boards recognizes the need for the development of water resources in this State. It does not purport to be qualified to pass judgment on the best solutions for immediate, inter-mediate and long-range programs for development of the State's water resources.

We recognize the need for some immediate relief which is imperative if the northeastern section of the State is going to be able to continue to grow residentially and be able to accommodate industry.

With respect to Senate Bill 272, we take serious exception to item (d) in paragraph 21, which provides: "should all other sources of revenue be insufficient, the proceeds of an annual State tax ad valorem on all taxable real and personal property, to be assessed, levied and collected as hereinafter provided."

Local and county governments have, for all practicable purposes, as their only source of revenue real estate and personal property tax. The burden on real estate to support the cost of local and county government has reached the breaking point. We had hoped

that tax on real estate would continue to be reserved as a source of financing local and county government, and that the State would not encroach on this taxing source.

We believe that the incorporation of this provision in the bill will jeopardize its passage in a State-wide referendum.

The New Jersey Association of Real Estate Boards respectfully request that this particular item (d) of paragraph 21 be deleted.

Again thank you exceedingly for the opportunity to be heard on this subject.

SENATOR DUMONT: Any questions? Senator Crane.

SENATOR CRANE: Mr. Haines, I just want to ask you if you have recognized that it has been brought out this afternoon that that is a standard phrase in a bond act in the State. I don't know of any case where we have reached that point, where the imposition of such a tax has been necessary.

MR. HAINES: I was not familiar with the fact that it is a standard provision in all bond referendums. Regardless of that, we do believe that that provision in there at this time, with all the municipalities of the State being very conscious of the growing real estate tax, will jeopardize the passage on a state-wide basis.

SENATOR CRANE: I think this is more a question, Mr. Haines, of perhaps talking with the bond people to see what alternate phrase might be inserted

that would still qualify the bonds at the same price. Do you understand what I mean?

MR. HAINES: Exactly.

SENATOR DUMONT: Any other questions of Mr. Haines?

Thank you, Mr. Haines.

Now we have four opponents that I will have to put on out of order because they can't come back next week, then next Thursday, when we resume at ten-thirty, we will put Mrs. Van Dyke on first and then Mr, Kean, and Mr. Shanklin late in the afternoon. Then the opposition or any other proponents who want to testify, if they will give us their names at that time, they certainly may do so before we get into the principal opposition.

I was asked to call your attention to the fact that there are water resource, land use, and other related maps, which are a record of the studies of the Stony Brook-Millstone Watershed Association and Rutgers University, located in the hall, right out here in the corridor and you can look at them, if you wish, on the way out.

Now, Mr. Herbert Voorhees, President of the New Jersey Farm Bureau.

HERBERT W. VOORHEES: Mr. Chairman and gentlemen of the Committee, my name is Herbert W. Voorhees. I am President of New Jersey Farm Bureau, a private, dues-paying organization of approximately 7,000 farm families with membership in all of the counties. We appreciate the opportunity of presenting our views on this important matter.

New Jersey Farm Bureau has a long-standing policy on the conservation and development of water resources in the state. Farm Bureau has long been involved in state-wide water problems. It has taken the lead during these years in bringing together expert opinion on every aspect of the subject. This has been most recently expressed in our Water Policy Statement adopted by voting delegates from the County Boards of Agriculture to the 38th Annual Meeting, held last November 15 at Far Hills Inn, Somerville, New Jersey. I now wish to quote that policy.

"In recent years we have become keenly aware of the increasing importance of conserving the water supply in our state. Increased use of surface and sub-surface water by rapidly increasing urban and small-town populations, expansion of old industry and the building of new industry requiring increasing amounts of water, and the expanding use of agricultural irrigation, all contribute to depletion of our once-abundant water resources Whole civilizations have been scattered and some have become extinct because of failing water supplies.

"We urge the executive committee, the officers and staff, to use all resources available in studying this problem, considering the following phases: introduction of water rights legislation; use of abandoned mill ponds, canals and other existing facilities in which to store water; construction of small ponds and lakes on the local level; establishment by the State or other agencies of new, large storage facilities and the methods of financing same; urge restrictions on using underground water for air-conditioning in industrial plants; additional representation of farmers on the State Water Policy and Supply Council; alleviate the restrictive regulations concerning the action of farmers drilling their own wells as long as they observe registration of well sizes, depths and capacities; urge farmers to actively participate in the establishment of local watershed administration programs.

"We urge county and state governments to immediately consider using presently held public lands, such as state parks, Fish and Game lands, county parks, etc. as soaking-up areas and water supply reservoirs rather than take any further taxpaying lands out of production."

We are here today to consider specific legislation which purports to offer a cheap and quick solution to our immediate water needs. This legislation has been introduced in the form of two bills, S-272 and S-273. A casual reading of these two proposals would lead the uninformed to the conclusion that here, at last, is the answer to our water problems. Our good friend, Senator Crane, who introduced these proposals, may not be sure, for in his statement at the end of page 12 of both bills he states, "This is 1 of 2 bills intended to carry out the recommendations of the First Report of the New Jersey Water Resources Advisory Committee (April 25, 1957.)"

We clearly understand where the Senator stands. It seems quite clear he is not endorsing his own proposal. He is endorsing a proposal submitted on April 25, 1957, to the Honorable Joseph E. McLean, Commissioner, Department of Conservation and Economic Development. Could it be that we are really joining hands in a true bi-partisan approach to a solution of one of New Jersey's most vital problems?

Unfortunately, no! A shadow, black as night, has been cast over this whole issue by the secret and hasty efforts of this Advisory Committee in an attempt to force through legislation for the benefit of a handful of industries in the Raritan Basin.

The great issue today is not the flimsy inaccuracies and gross financial underestimates of the Advisory Committee's report. It is not the substantial financial contributions made to this "public" committee by private interests who would benefit largely by the adoption of its recommendations. It is not that people would be forced to surrender

their homes in the affected areas. It is not that we don't need a water policy in this state.

The real issue is one that New Jersey Farm Bureau has always opposed and will continue to oppose with all its might. We are solidly against legislation for the few at the cost of the many. This proposal is just that. This is the issue.

There is nothing in the Advisory Committee's report to show how the proposed reservoirs, especially the one at Stony Brook, will furnish potable water to the metropolitan areas in the northeast part of the state. Of what value will these proposals be to the citizens of Trenton, Camden or Vineland? To the potato grower in Central Jersey, to the truck farms of South Jersey? I am surprised that either political party would like to have this program discussed this year!

Let us approach this problem with facts. If more engineering studies must be made, let's make them. Let's consider New Jersey's water needs in the comprehensive publi interest. Let's consider them whole, not piece-meal.

The first basic principle of water conservation is to hold the water where it falls and release it when it is needed. The acceptance of this fact has been recognized by the Congress of the United States in the passage of its Watershed Protection and Flood Prevention Act. (Public Law 566). It was American Farm Bureau which sponsored and succeeded in obtaining this legislation. One of the first groups in the United States to apply for assistance under this act was the Stony Brook-Millstone Watersheds Association, Inc. Work on the first of a series of nine local dams on Stony Brook was to have begun in a few weeks. This was the result of years of careful planning and study, all financed by local, voluntary membership. Those plans must be abandoned in the face of this costly, ill-planned proposal. I am commending the Stony Brook-Millstone Watershed Association, simply to show that there are ways to conserve and use water without the destruction that would be involved in the Advisory Committee's program.

A word about industry. New Jersey has welcomed and encouraged the growth of industry for many years. Every one of us here has enjoyed the benefits of the great

industries of our state. But we have enjoyed these, sometimes, at a tremendous cost. Gray factory slums have been created. Streams have been polluted. Gasses from many smokestacks contaminate our air.

Many industries have realized that something must be done about these problems and have taken the lead in doing something about them. New Jersey Farm Bureau commends them for their farsighted efforts toward making our state a more beautiful and healthy place in which to live.

But neither industry nor the state government has yet seriously considered the disciplines that in the future must be a part of our integrated water policy. It is not enough to erect costly dams at the expense of the taxpayer for water that all too often is squandered. Industry must share much of the responsibility for this terrific daily waste.

Possibly the time has come to not only consider legislation for conserving water at its source, but also at its point of use. I see no such proposals in this bill. Farm Bureau would more seriously consider any future proposals if this phase of conservation were equally stressed by due process of serious study and balanced legislation.

I thank you for the privilege of presenting our statement in this vital issue.

(Applause)

SENATOR DUMONT: Any questions of Mr. Voorhees? Senator Crane.

SENATOR CRANE: I just want to say this, Senator Dumont, in response to Mr. Voorhees' statement, that I hope he will see in my leading statement today some assurance that there is no feeling in the Legislature that we are attempting to railroad through some program handed to it by someone else. We have taken this because we felt there was some merit in the Raritan small dam program which this program has forwarded in part, sir. And I think, under the splendid and conservative leadership of Senator Dumont, that you will find in the end analysis that we are proceeding slowly in an effort to see if this is a possible solution.

MR. VOORHEES: Thank you for repeating it, Senator.

SENATOR DUMONT: He has referred to you as their friend anyway, Senator, so you are in good shape.

(Laughter)

SENATOR DUMONT: Any questions of Mr. Voorhees?

Thank you very much, Mr. Voorhees.

Mr. Otto L. Nelson, Jr. of Lawrence Township.

OTTO L.NELSON,JR.: My name is Otto L. Nelson,Jr. I live on Carter Road adjacent to the Stony Brook bridge in Lawrence Township. My property would be taken in whole or in part for the proposed Stony Brook reservoir.

I believe that I can claim technical competence for what I have to say, and to substantiate this it is necessary to refer briefly to my work and experience.

I hope you will please pardon this personal reference. I am a vice president of a large life insurance company where I have been in charge of a construction and real estate program costing in excess of one hundred million dollars. This work has included design, engineering, construction, real estate appraisal and operation, and experience in condemnation and in litigation arising therefrom. In addition, I am a vice president of the Regional Plan Association of New York and have been involved in regional planning for the past ten years. Finally, I can say that I know almost every square foot of at least several hundred acres of the Stony Brook reservoir area.

May I urge you strongly to take no action until you have additional information. What you have received to date is so incomplete and so erroneous that no person occupying a position of public trust or responsibility can or should be expected to act on it. Any business executive who acted on such incomplete information would properly be subject to a stockholders' suit.

Let me be specific on just a few of the inaccuracies and significant omissions.

The land costs as estimated by the Smith Report are grossly inaccurate. The estimate was that the 1520 acres of reservoir area "plus a modest strip of land around the water area," size not specified, could be acquired for an average of $1100 an acre for both land and buildings. This is so gross an undervaluation I am reluctant to characterize its motivation. Mr. Ritter, the Engineer, said that at least a 50% excess would be needed. I believe it can

be demonstrated that the land values alone, with all buildings and improvements excluded, are worth at least four or five times the $1100 per acre price given in the Smith Report. In condemnation cases market value is the test and the best evidence of market value is obtained by the sale price of comparable property in the neighborhood. I can assure you that I am prepared to produce evidence of comparable sales and to secure the services of expert appraisers and thereby demonstrate that land values alone, excluding all improvements, are in excess of $5000 an acre.

Let me say further that no competent appraiser would hazard values on buildings and improvements without a detailed physical inspection of each of the buildings and improvements involved. This of course has not been done.

In view of the gross inaccuracies in the Smith Report (of which land cost estimating is illustrative) and its unscientific and superficial analysis of the problem, its submission to this Committee is hardly complementary to the members of the Committee.

I am amazed that any so-called advisory committee would be so lacking in respect for this Committee that they give you cost estimates which will boomerang and come back to embarrass the members of this Committee. Let me urge you, particularly now that you have been put on notice that the Smith Report is not to be trusted, that it would be gambling with your reputation and with the trust that the people of New Jersey have in the elected representatives to endorse the Smith Report and Senate Bills No. 272 and No. 273. Let me state on the basis of checks equally as good as those of the Smith Report that the proposed Stony Brook-Spruce Run reservoirs, dams, and flow control accessory equipment will come far closer to costing forty million dollars than the estimated fourteen million dollars.

Next, I should like to invite your attention to the lack of topographical data and the complete omission of field engineering which is so essential in the Stony Brook area where the ground is so gently sloping. One does not have to be an engineer to know that a relatively flat valley is ill-suited for a dam. Let me quote briefly from the Tippetts-Abbett-McCarthy-Stratton Survey of New Jersey Water Resources Development dated December, 1955, which placed on-river dams very close to the bottom of the list of suggested projects.

On page 14 of Chapter II there is this statement:

> "It must be recognized that potable supplies obtained with any of the on-river schemes would not have the advantage of deep storage for quality improvement and low temperature and that delivery of the supply will be dependent upon pumping at all times. The shallow depth of all the on-river sites (with the possible exception of Spruce Run), and the many swampy areas which would probably be unavoidable in the many arms and branches of the reservoirs, would not be conducive to water of the most desirable quality."

Again, on page II-18 there is the statement:

> "It must be recognized that the on-river developments discussed here would not be capable of furnishing water of equivalent quality and temperature to that which could be supplied by certain off-river developments described in following sections of this chapter and which have the advantage of deep storage. During periods of flood runoff, sediment deposits would be accumulated in the upstream portions of the on-river reservoirs. These delta areas, because of the flat slopes in most of the Raritan Basin, may result in swamp conditions. This would cause increasing water losses due to evaporation and transpiration, a gradual deterioration in water quality, and a decrease in reservoir capacity. In addition, the full on-river reservoir development would inundate or remove from production and taxation a total area of approximately 17,000 acres of land. Provision for a new 200 million gallons per day potable supply, in addition to the Elizabethtown Water Company's diversion and stream regulation, will require land takings of 13,600 acres. By comparison, the proposed Chimney Rock Reservoir site, operated in conjunction with the Spruce Run Site, would provide the same total water supply and river regulation with the use of only 4800 acres."

cally the same elevation as is Elm Ridge Road. Much of the area would be a swamp with perhaps a foot of water when the reservoir is full. During much of the summer you will have mud flats on a vast scale - at least 600 of the total 1500 acres will be just that, mud flats. The evaporation and transpiration in these shallow water areas will be such that these areas should be excluded from the reservoir area or substantially excavated. No field tests or borings were taken to determine whether such cuts would be largely expensive rock excavation or not. In the absence of a detailed topographical map with two foot contours and with no rock structure data obtained by field borings, the Smith Report is valueless as a basis for responsible legislation.

I could go on and enumerate a number of other objectionable features and details of the Smith Report and the two proposed bills which would implement the reports. Others have or will cover many of these details. However, I do wish to point out what seems to me to be the basic impropriety and unreliability in both the methods used by the Smith Committee and in the content of their report.

The Tippetts-Abbett-McCarthy-Stratton report of 1955 was a good beginning in that it surveyed in a preliminary fashion all of New Jersey's water resources. One would normally expect that this preliminary survey would be followed by a comprehensive report on the Raritan River basin. Such a detailed engineering study would present all the various alternative proposals for water supply development and conservation listing the advantages and disadvantages of each as well as the cost. In such a report both on-river and off-river reservoirs would be considered as well as the relative merits of high and low dams or a series of dams. More important such a

Now let me read from the Smith Report which on a map from which contour lines have been conveniently omitted there is this note:

> "Reservoir water area shown is from available twenty foot contour maps and is only approximate. The precise area to be acquired will be determined by detailed engineering studies and will include a modest strip of land around the water area."

Mr. Ritter today gave that modest strip as 50 per cent.

I ask you if this statement does not of itself typify the slipshod and inaccurate technique of the Smith Report. What right do they have to expect this Committee or the people of New Jersey to sign a blank check? Why weren't the detailed engineering studies made before decisions and actions were requested?

As a matter of fact, two foot contours are required if your engineering studies are to have any accuracy because the land is so gently rolling and because the change in grade is so highly irregular as you move away at ninety degrees from the Stony Brook streambed. Let me urge the Committee to make a physical inspection and see for itself. You could drive to Pennington and then travel by Elm Ridge Road and thence across the Stony Brook bridge after which you could travel on side roads to observe the south bank of Stony Brook.

Because my property is open and not thickly wooded you should walk through the fields. You will then observe how unsatisfactory and impractical it is for a reservoir to be placed in this area. I have land close to Stony Brook that is higher in elevation than is Elm Ridge Road which at that point is beyond the reservoir area. You will find stretches of from 500 to 1000 yards where the difference in elevation is not more than one foot. Much of this area is practi-

report would indicate precise costs and relative priority of steps to be taken so that an intelligent start could be made in a comprehensive program.

Even with existing data, a strong case can be made for starting the water development and conservation program right down in the New Brunswick area where they ought to put their own house in order before taking away from other localities their future local water supply.

Why should not this Raritan River program be started by placing a dam some five miles below New Brunswick as was suggested by the T.A.M.S. report? Such a dam would prevent fresh water supplies in both the river and local wells from becoming contaminated by salt water. It would give the New Brunswick industrial area a reservoir in its own backyard instead of in our front yards.

Why should not the large industrial users in the New Brunswick area be required to put their own houses in order before they ask the taxpayer of New Jersey to do what they can and should be required to do at their own expense? I refer now to water conservation and the re-use of industrial water over and over again by industry. This can and should be done and it is being done and is required in many parts of the United States. In New Jersey large industrial users are permitted to waste as much water as they choose.

Let me give you just two pertinent examples to contrast the wasteful practices in New Jersey with practices elsewhere. The company for which I work owns and operates - and this is done by my department - a large shopping center in Long Island. There we have a large central air conditioning plant for the entire center.

We obtain this water from two wells and every gallon we take out, we put back into two other wells. This is required by the Water Commission and is a sound water conservation measure. Thereby the water can be used over and over again. In the New Brunswick area I know of one plant which uses tremendous gallonage and then dumps it into the sewer from which it is discharged into the lower Raritan Bay where the salt content of the water there makes its further use impractical.

Let me recall for your information the data on New Jersey water consumption as listed in the annual report of the Department of Conservation, and I quote:

> "The following table shows the comparative consumption of water supplied by public systems during the calendar year 1951 through 1955:

	Consumption - Million Gallons Daily				
	1951	1952	1953	1954	1955
Northern Metropolitan District	393.37	405.47	420.01	413.37	431.28
Southern Metropolitan District	75.06	76.99	78.41	80.03	85.25

> "The public water supply consumed in New Jersey each year is developed and distributed by 156 municipal systems, ninety-three private water companies, one major regional association (The North Jersey District Water Supply Commission) and by the State of New Jersey in operating the Delaware and Raritan Canal as a source of water supply. More than fifty per cent of the public water is used by industry; which also obtains three billion gallons of non-potable water daily for consumption and non-consumption purposes."

This official report shows that industry in Northern New Jersey uses nearly two billion gallons of water daily. Here is the place to start on your water program by requiring industry at their own expense - and it is a nominal expense - to conserve water and put

their own plants in order before asking the taxpayers to solve and pay for their particular water problem. Not even in Chicago where they have all of Lake Michigan to draw from do they permit the wasteful use of water by industry. The water mains and distribution system would not take the load and so rather than ask the taxpayers to pay for a new and greatly enlarged water mains and distribution system, industry is expected to conserve and re-use water. Why should this not be done in the New Brunswick area by industry at its own expense rather than by this proposed ousting of home owners from their properties and pre-empting local water resources of communities many miles away?

Speaking of the taxpayers' interest, I would like to point out how both the Smith Report and Senate Bill No. 272 are misleading to taxpayers. The allegation is made that these two reservoirs and dams can be financed on a self-liquidating basis from revenues derived from the sale of the water and that, therefore, the taxpayers throughout the State would not be saddled with this debt burden. I suspect that the Smith Committee knew full well that the Stony Brook-Spruce Run reservoirs would not be self-liquidating or they would not have urged that the proposed $14,000,000 bond issue be a general obligation bond of the State of New Jersey. If the Smith Committee had really believed that the project would be self-liquidating why didn't they make it more attractive politically by urging that the bonds be revenue bonds payable solely from water sales as is the usual case in financing these days on self-liquidating projects? They knew and this Committee should know that the taxpayers of the State will

have to pay the bill. Finally, there are serious ethical implications in the manner in which these proposals have come about which highly placed public men, such as your are, must consider. Here in the Smith Committee you have representatives of large industrial concerns, with great direct financial interest in the problem, getting themselves appointed as an advisory committee to an executive department of the State. This is no advisory committee; this is a lobbying committee with an axe to grind, raising money largely from companies standing to benefit financially from what is recommended and using full-time salaried employees of companies financially interested to work full time for the Committee. I do not have to spell out the implication of this for gentlemen as perceptive as you. If there was ever a violation of the conflict of interest ground rules, you can find it in what the so-called advisory committee has done in perpetrating this report and then going about the countryside to secure support for it.

I have had considerable experience with advisory committees in the Federal Government in Washington. I know of no instance where an advisory committee to a governmental agency used funds raised by financially interested parties or used salaried employees of affected industries as their staff and then turned itself into a lobbying pressure group for its recommendations. If this had occurred at the Federal level, it would properly be the subject of Congressional investigation.

Finally, how could a greater travesty on the democratic process be perpetrated than has been done in this case. To the people who would be forced from their homes, the theme song of the Smith Report and its privately paid staff of speech makers runs like this: We

propose to get water for industry at taxpayers' expense and we don't care how we get it. Let us lift out of context a couple of paragraphs of the T.A.M.S. report and omit the unfavorable comments contained therein. Never mind how this affects the communities involved; we don't care about the loss of local revenues or local water supply resources or swamps or road dislocation; all we want is water for industrial users in the New Brunswick area. Don't bother to consult with local communities or watershed associations or affected citizens to ascertain if a mutually acceptable and satisfactory water development and conservation program can be worked out. Pull a fast and slick operation in the hope that a fancy, superficial report will hoodwink the State legislature and ram the bill through before the general public wakes up and becomes aroused.

Let me conclude by saying that every citizen is interested in and in favor of a sound water policy that takes into account the interests of all concerned and all phases of the problem. A report such as the Smith Report and the activities of its members and their henchmen will do more to jeopardize the development of a sound water policy for New Jersey than anything I can think of. They do not come into this forum with clean hands; their data is incomplete, superficial, inaccurate and misleading. They have ignored the democratic process and the conflict of interest principle. I urge you to reject the report, table the bills, and start over on a proper technical and engineering basis with advice coming from individuals who do not violate the conflict of interest principle and who do not have "the public be damned" attitude.

(Applause)

SENATOR DUMONT: Any questions of Mr. Nelson?

All right, Mr. Edwin K. Large, Jr., Counsel to the Hunterdon County Board of Freeholders.

EDWIN K. LARGE, JR.: Mr. Chairman, first of all I want to say that we in Hunterdon recognize the value, not only to the State but also to Hunterdon, of the stabilization of the flow in the Raritan River. However, Spruce Run Reservoir, as Senator Lance has pointed out quite recently in a very good article on the subject, will constitute the ninth piece of State-owned property in Hunterdon County. These pieces total approximately 9,000 acres. Of that nine thousand, six thousand have been taken or will have been taken since approximately this time last year. Of that six thousand, all lie in the same school district. The acreage which will be taken for Spruce Run Reservoir will constitute close to twenty per cent of the land area of Union Township.

On top of this there is talk of a new freeway going through Hunterdon County. This freeway would go through Union Township and in general through the same area in which Round Valley and Spruce Run Reservoirs will be located.

As you can see, the effect can be disastrous upon the economy of that section of the County, not only from the standpoint of taxes but also from the standpoint of farms and businesses which will be pushed around.

Now, we want to urge upon you people consideration of three things in particular:

1. We think that the item of most importance in the question of water is the proper development of the Delaware. We think that should take top priority and should be pushed with all speed.

2. As far as the Raritan is concerned, we wonder whether there has been proper engineering development of the usability of the gorge located just north of High Bridge. That gorge lies on the South Branch itself and the property which would be taken for reservoir purposes there is already partly owned by the State. It would do us much less damage to have the reservoir placed there rather than at Spruce Run.

3. The question of section 14 of Senate 273 has already been raised and we want to raise it again. That section provides: "To the end that a municipality or school district shall not be financially embarrassed". The county is also involved. The county taxes come from local real estate. And we think that the loss to the county should be considered along with the loss to the municipality and the school districts.

Now the section goes on to provide that the "Commissioner shall enter into a contract with any municipality or school district to reimburse it." Suppose the Commissioner and the School District or Municipality, and I hope you will also include County, can't get together on a contract - where do we go from there? We think it is of the utmost importance that that question be solved and,

as you can see, with the great percentage of land area being taken out of our County and particularly out of that Township and that School District, the effect will be most important.

We hope that before the bill is passed it will be made definite that we are to receive adequate reimbursement out of the project.

Thank you very much.

SENATOR DUMONT: Is it accurate, as we understand it, that about ten per cent of the total land in Hunterdon County is in a position now where it represents no income in the form of ratables to the municipalities?

MR. LARGE: I don't think it goes that high as far as the county is concerned. I do not know at the moment what the total land area of Hunterdon is but it would be approximately 9,000 acres including Spruce Run and not including the freeway which is in prospect.

SENATOR DUMONT: Now, the Ken Lockwood Gorge, which you suggested as an alternative, you say is mostly state owned land now?

MR. LARGE: Well, it depends upon how much land would have to be taken for that reservoir purpose and until the engineering work is done to determine what land would be required, we can't say. Some of that is state owned property and in any case it does not contain the very fine farm land which is involved in Spruce Run. You see, Round Valley consisted of approximately 3800

acres of our best farm land. Now, Spruce Run is of the same ilk, it is very fine farm land and very likely it would run pretty close to 2,000 acres before you get through there.

SENATOR DUMONT: How many properties are involved in Spruce Run, do you know offhand?

MR. LARGE: I can't answer as to the number of property owners.

SENATOR DUMONT: Would it be much greater than the number involved in the Ken Lockwood Gorge?

MR. LARGE: I think it would. But, again, until we know exactly what land would have to be taken in the Gorge, we can't say.

SENATOR DUMONT: Mr. Ritter, may I ask you a question, please? Did you examine, in the course of looking into sites, - did you examine the Ken Lockwood Gorge as a possible site for a reservoir?

MR. RITTER: I have heard about that question. About two weeks ago we examined the maps. Unfortunately that reservoir would back water up into a community of North Califon, you would inundate the railroad hookup in that area. That is a beautiful dam site. It would only hold about one-quarter of Spruce Run. That's the unfortunate thing about that location.

UNIDENTIFIED SPEAKER: Mr. Chairman, I think that engineering surveys would very well prove that a dam on Lockwood Gorge could feed your now State-owned Round Valley.

SENATOR DUMONT: What is your name, sir?

UNIDENTIFIED SPEAKER: Carl Heitzman.

SENATOR DUMONT: Where are you from?

MR. HEITZMAN: Union Township.

SENATOR DUMONT: All right. Any questions? Senator Crane?

SENATOR CRANE: Just this: As you will recall that paragraph that we have been discussing today was put in there experimentally at my request, to give us a talking point, and I urge you, if you have a different viewpoint, as evidently you have, if you would care to submit to the Committee a suggested revision, we would be glad to have your thinking.

MR. LARGE: Thank you, sir.

SENATOR DUMONT: Any other questions?

Thank you very much, Mr. Large.

Mr. Heatherington. Will you give your full name, please.

JOHN HEATHERINGTON: My name is John Heatherington. I am a member of the Township Committee of Union Township, Hunterdon County.

Mr. Chairman, we of Union Township are basically opposed to the reservoir and Mr. Hauck, who has gone home, will discuss this much more in detail at the next session of your Committee.

We are also prepared to accept the inevitable if public pressure demands it and we will have the Spruce

Run Reservoir.

At the present time we have the New Jersey Reformatory for Women, known as the State Farm, which contains about 344 acres, and we have a public shooting ground which contains 910 acres. The State Farm is all within our Township and all but a very few acres of the shooting ground is in our Township.

Our Township has about 7200 acres in it and, according to what Mr. Ritter said, about 2000 acres of this will go into the reservoir. The New Jersey Water Resources Advisory Commission Report tells us that this plan makes the project self-liquidating and will eventually return a profit to the State. This addition of new raw water to the community located below the Spruce Run Dam site will invite new industry and new residential areas to come into being down there and all these buildings will mean more ratables for the communities that are located down the river, and they will tend to grow over a period of years.

I wanted to talk about section 14 but Senator Crane and some others who have been here today have mentioned the fact that there were things that should be corrected in it.

The purpose of my being here is to try to make a suggestion to this Committee for an addition to section 14. We in Union Township feel that since the State is going to sell water to private industry, they

are definitely in the water business and it has no bearing on the State Farm or the Shooting Grounds which is something altogether different and non-profit making. This is definitely making a profit and we feel that there should be some additional charge made for the water that is sold to these communities and this additional charge turned over to our Township or our municipality and any other municipality and also any county that loses ratables. The reservoir is not a non-profit organization or a non-profit project, it is definitely a profit-making one and I don't see why a small community like ours should suffer the entire loss when actually the State is going to get revenue from it.

I thank you.

(Applause)

SENATOR DUMONT: Is any part of Round Valley located in your Township?

MR. HEATHERINGTON: No, sir. That's Clinton Township.

SENATOR DUMONT: And you have 344 acres, you say, in the Reformatory at Clinton.

MR. HEATHERINGTON: And about 910 acres in the Public Shooting and Hunting Grounds.

SENATOR DUMONT: Who owns that? the State?

MR. HEATHERINGTON: The State of New Jersey, yes, sir.

SENATOR DUMONT: And all of the proposed

Spruce Run site would lie within your Township?

MR. HEATHERINGTON: Not all of it but about 98 per cent of it, again going on the rough outline map that they have. I think right at the dam site of it - we border with Lebanon Township and Clinton Township and there may be a very few acres, but we would be the major loser by well up in the ninety per cent.

SENATOR DUMONT: Any other questions?

SENATOR LANCE: What percentage of your Township in acreage would be held by the State of New Jersey as tax exempt facilities?

MR. HEATHERINGTON: Senator, you mean including Spruce Run?

SENATOR LANCE: Including this. Did you figure the percentage?

MR. HEATHERINGTON: Well, it would be about 3200 acres which is about better than - almost 40 per cent, isn't it? I didn't try to figure it out percentagewise. I am not a statistician.

SENATOR LANCE: About 45 per cent, as I figure it.

SENATOR DUMONT: Anything else?

SENATOR LANCE: One question. Does your municipality have school bonds outstanding?

MR. HEATHERINGTON: Yes, Senator. We have a school bond for a new grade school and also for the regional high school. I believe there are 13 districts

that participate in the regional high school and we are one of the 13, and they have a new bond issue that is coming up for a new addition.

SENATOR DUMONT: Any other questions?

Now, is there any other witness who is going to be seriously inconvenienced by coming back next Thursday, who wants particularly to testify today?

Well then, at this time we will declare this hearing adjourned until Thursday, June 13th, at 10:30 A. M. here in this Chamber.

Thank you very much.

(Hearing adjourned)

The following statement was submitted for the record:

ARTHUR S. MEREDITH: My name is Arthur S. Meredith. I am a resident of Somerset County. I am here today to speak in favor of the proposed on-river reservoir construction program. I wish to thank the committee for providing this opportunity for the citizens of New Jersey to express themselves today on this critical problem of water supply.

We in Somerset County and the Raritan Valley welcome the on-river development of the Raritan River watershed. Such development will provide our county with the economic safeguards and assets which the water plan of two years ago denied us.

For example, the Raritan Valley has been ravaged by increasingly destructive floods in recent years. Flood control is now of paramount concern to us in the development of a sound water resources program for the state and our county.

This plan provided the first steps in a program of flood control so essential to a county such as Somerset which is traversed by the Raritan River and through which the Millstone River flows.

While our county has been the scene of floods, it has also suffered from draught and the attendant low flow in the Raritan river. Such low flow has, at times, threatened to impair the operation of wet industries

along the Raritan River. Should such forced shutdowns ever become a reality, they would work a real hardship on many of our wage-earning citizens.

Additionally, we in Somerset County and our neighboring county of Middlesex are embarked on trunk sewer programs that depend to some extent for their success upon a sustained minimum flow in the Raritan River.

This plan, unlike the proposal of two years ago, guarantees us a sustained minimum flow in the Raritan River below its confluence with the Millstone.

Flood control and the maintenance of a sustained minimum flow in the Raritan river are of immediate importance to us.

Still another consideration is the future of the Raritan Valley including our own county as a region for new industry, new commercial enterprise and new homes.

Obviously, if our growth is to keep pace with that of the rest of the state, we will have to have access to more water in the years to come.

This plan offers us the assurance that we want. It makes it readily apparent that we, as well as northeast New Jersey, will be able to share fully the benefits of this on-river development.

This water plan will permit continued economic expansion in our state. What is more, it helps assure such growth on an equitable basis without sacrificing the future of one region to benefit another.

Two years ago, many of us in Somerset County played a vigorous part in opposing the water scheme advocated by the Legislative Committee on Water Study.

Our opposition at that time was not based upon narrow local considerations. Rather, it was based upon engineering facts.

We opposed the referendum of 1955 on an economy basis, too. Chimney Rock, in first stage construction, would have cost $66 million dollars as compared to $14 million for this on-river plan.

And the proposals of 1955 would have put the state deep in the water business, not only as a reservoir builder, but as the builder of treatment and transmission lines.

This plan allocates much of the work to private industry, where it belongs.

This is the kind of plan that encourages private industry and the state government to work together for the mutual benefit of the people of the State of New Jersey.

In view of the restriction placed upon the development of Round Valley as an off-river reservoir, and the critical nature of our state's water storage problem, I respectfully ask that the Legislature and Governor Meyner move swiftly to make this proposal a reality.

Thank you.

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