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

before

SENATE LAW, PUBLIC SAFETY AND DEFENSE COMMITTEE

on

PASSAIC VALLEY SEWERAGE COMMISSION

Held:
June 13, 1980
Council Chambers
City Hall
Paterson, New Jersey

MEMBERS OF COMMITTEE PRESENT:

Senator Frank X. Graves, Chairman
Senator Frank E. Rodgers
Senator John P. Caulfield

ALSO:

Assemblyman Vincent Pellechia
Assemblyman John A. Girgenti
Assemblyman W. Cary Edwards
Senator Joseph Hirkala

ALSO:

Stephen S. Robbins, Research Associate
Office of Legislative Services
Aide, Senate Law, Public Safety and Defense Committee

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SENATOR FRANK X. GRAVES, JR. (Chairman): Ladies and gentlemen, the Senate Law and Public Safety Committee has been empowered by the Senate President, the Acting Governor of the State of New Jersey, to conduct a public hearing on our great concerns of the actions of the Passaic Valley Sewer Commission and probably the word would be dumping or permitting some 30 million gallons of raw sewage or waste materials to be dumped into the Passaic River at various points adjoining emergency construction of a sewer break owned by the Passaic Valley Sewer Commission within the radius of the City of Paterson.

The purpose of this meeting is threefold. Number one, as I have already expressed, is the concern of the Senate of the State of New Jersey. Number two is to exact testimony from the Passaic Valley Sewer Commission and their professional people as to number one, what caused it; number two, were there alternatives to what they did to relieve the situation and, if there were, why didn't they use them and what would have been the financial cost of the alternatives, if there were alternatives. Also there is our deep concern as to the health of our constituency who border the Passaic River or those that would use the Passaic River. Three, is there any permanent damage to the River, who is going to be responsible for monitoring the same, and what are we going to do to make sure that there are no problems with any contagious diseases or what have you from this particular effluent? Four, what is the Passaic Valley Sewer Commission going to do to make sure that, if this problem arises again, they will be able to meet this problem without the crisis conditions that some twenty municipalities are now suffering that border on the Passaic River.

I was first going to have the Passaic Valley Sewer Commission answer some questions, but I felt it was extremely important that the Mayor of this City, who has been so concerned that he has been on the telephone with me for 13 straight days, say something. He is concerned that, number one, we conduct these hearings, and number two, there be a solution to this particular problem. So, we're going to put on the Mayor of the City of Paterson because of some problems that he has because of his time schedule prior to our taking the testimony. Mayor Kramer?

M A Y O R L A W R E N C E K R A M E R: Thank you, Senator. First of all, I would like to congratulate you and welcome you and express the gratitude of our city,as well as many of our sister cities that I see represented here today, on the efficient and effective manner in which you have caused this meeting to take place. The significant events that have gone on seem, to us in Paterson, to justify such hearings and some important observations should be made.

The question of the emergency that has caused a decision to come to a point where the action, it seems to us in Paterson, functions more on the time factor that was involved than any other issue. Emergencies can happen. But, was this, in fact, such an emergency.

If I might go through, quickly, the events followed by the City of Paterson--and I point out that some of the reports that I have been reading did not reflect some of these dates and you might find them fascinating, as we did. On the Thirtieth of March, of this year, the gas line ruptured, caused by the collapse of the trunk line itself and the street. That was March 30. We did receive, since then, what is refered to as the May 2 bypass letter and much has been built on the question of whether we received the May 2 letter. The answer is, we did. But, on March 7, that is preceding the 30th, obviously, the day of the collapse, and Senator Graves will remember that collapse because it was a Sunday morning and you and

I were both at the location when we were concerned about vacating residents surrounding the area at the suggestion of the Paterson Fire Department. That jeopardy was caused as a result of the collapse; the collapse taking place on the 30th. The Sewer Commission indicated in a letter to Paterson on the 7th of March that, yes, they would take borings to investigate the concerns that we had registered with them regarding the street collapsing. It seems to us that this entire problem is a result of a procrastination, inaction by the Commission when they had been informed by the Engineer of this City regarding a problem on River St. on September 25, 1979. I'll read you one sentence from that letter so as not to take unfair time. It is to the consulting engineers. "Please arrange to have the area properly investigated and then take the necessary corrective action as quickly as possible to avoid any mishap that might occur." That is signed by the Engineer of the City of Paterson and sent to the appropriate authorities. That represents, it seems to me, a dramatic difference between the dates that we're hearing about as an emergency and when Paterson informed the appropriate authorities about the problem on River St., a depression around manhole #86A, which is the manhole which becomes the key manhole in this entire issue.

Our purpose is not to embarrass or to place blame, but, frankly, to clear the record on those who have worked very hard to establish that Paterson knew about the actions that were being taken. That's true. We've known about it from the date that we requested the borings, the date the street collapsed and the date that we suggested that something be done to investigate the entire area that something was wrong on River Street and that is where your trunk sewer, obviously, is. We are concerned that the record be cleared.

We make some recommendations, since it is not enough to point out the mistakes that have been made, but in a positive posture, if I might, it is obvious that we're going to need a better inspection program in the future to keep this from happening to us again. It is obvious that we are going to need somebody to respond when we send such letters and the months roll by and Paterson constantly calls and we wait until the emergency is a disaster. We recommend that these folks consider what we did in Paterson which is to create a pre-bid process for emergency work. We found that that cut the cost in just over half regarding Paterson's emergency sewer work and we would recommend that we set up a procedure that, in the future, and perhaps, above all else, creates what is known as full disclosure on any of these issues, so that we all know what is involved.

The last comment I want to make is that there were some people who interpreted what I consider efficiency in the finance department of the City of Paterson to follow up regarding the charges that somehow Paterson equated dollars against the issue. The record shows clearly that we are billed on an average basis and what our efficient finance department did after all of these events took place was to be sure and notify the proper authorities that we were not unduly charged, if this was going to take place. That's after the fact, not preceding it.

So, to this distinguished group, I would urge that as you go through the process of the hearings you make yourselves aware of the fact that in terms of recommendations, the areas of emphasis, we believe, ought to be the ability to cause such a state agency to respond more rapidly in the future and the ability to cause state agencies that, by the way, are cap exempt, that we cause to take place an inspection program that will protect the "Patersons" of this State from this kind of an action being taken when the record so clearly indicates that the

steps that were taken were wanton and the results, disastrous. I will be happy to answer any questions that you might have.

SENATOR GRAVES: Senator Caulfield? Senator Rodgers? Thank you, Mayor. We will now start the proceedings. Our first order of business will the the Passaic Valley Sewer Commission. Who will speak for the Passaic Valley Sewer Commission?

C A R M I N E T. P E R R A P A T O: Good morning. My name is Carmine T. Perrapato, Director of the Passaic Valley Sewer Commission.

R O C C O R I C C I: Rocco Ricci, Chief Engineer of the Passaic Valley Sewer Commission.

J A M E S V. S E G R E T O: James V. Segreto, Counsel for the Passaic Valley Sewer Commission.

SENATOR GRAVES: On my extreme right is Assemblyman John Girgenti, Assemblyman Vincent Pellechia, and representing Bill Bate, Doc Rutledge at the other end, and Senator Joseph Hirkala, who repsents an area that is affected. There will be other senators that will be joining us. The members of the Committee are Senator John Caulfield, Senator Frank Rodgers and myself, Senator Frank Graves. Mr. Perrapato, what the Committee wants to do has been outlined. Number one, when were you first aware that there was a problem that led to the problem that now exists?

MR. PERRAPATO: Mr. Chairman, what I would like to do, if it is permissible to the Committee, is issue a small statement from the Commission itself first and then have our chief engineer, Rocco Ricci, give you a chronological order of what happened and explain it with charts and then we will be happy to answer any questions that the Committee would like to ask.

SENATOR GRAVES: Go ahead.

MR. PERRAPATO: I would like to say one thing before I start the statement. Anytime anyone requests any information from the Passaic Valley Sewer Commission, Paterson or anyone else, they receive it and they don't wait a long time to get it either. I can put that on the record.

I would like to express to the Committee the appreciation of the Passaic Valley Sewer Commissioners for this opportunity to appear and discuss with you a matter of common concern to us, namely, the preservation of our environment and the receipt and transmission to the treatment facilities of the PVSC of the sewage within the jurisdiction of the PVSC.

The PVSC was created by a special act of the Legislature in 1902 and is charged with the responsibility of relieving the Passaic River of pollution between the Great Falls and Newark Bay. We are an autonomous state agency supported by taxes levied by the user municipalities.

We are sensitive to our responsibility of providing an environmental service to the participating municipalities and their inhabitants and users.

Long before any other branches of government became either interested or involved in environmental issues, the PVSC, on a day-to-day basis performed its function of improving the environment within our district. When the recent emergency arose in connection with our interceptor on River St. in Paterson, PVSC responded with the same sense of concern with the environment that we always have. It is important for this Committee and the public in general to recognize that when an emergency arises with the catastrophic implications that were presented in this emergency, the Commissioners do not have the luxury of waiting for long periods of time to find a solution. The Commissioners must, in discharging their

responsibilities, take necessary action to meet the emergency.

The Commissioners, as public fiduciaries, are conscious of our responsibility to properly manage the funds which have been entrusted to them. They must be prudent in their expenditures of funds. That does not mean, however, that they must approach problems with a singular or even a principle concern with the cost of the solution. Our principle legislative mandate is an environmental one, and we do not make decisions which disregard environemntal considerations.

When the high pressure gas transmission line on River St. Ruptured, it was clear to everyone that the Commissioner had to act decisively and had to take action. Problems related to the repair of the interceptor were essentially technical problems. In exercising their discretion, the Commissioners must be guided by facts and recommendations presented to them by the experts. In this case, the Chief Engineer of the Commissioners recommended the course of action that was taken. The consulting engineers of the Commissioners recommended that action. The engineers made a comprehensive environmental assessment which considered all of the alternatives and which concluded that the least amount of environmental damage would be done by following the 19 day bypass alternative. The NJDEP and the USEPA, after carefully evaluating all the technical data, determined that the action which we are taking was the only viable solution to the problem.

In authorizing the project, the Commissioner, therefore, had the benefit of the recommendations and the approval of engineers and public officials who are highly qualified specialists in this field, and who enjoy the highest professional reputations.

In making the governmental decision that they did to approve the project, the Commissioners were fully mindful of the public comment that would inevitably arise. The Commissioners knew full well that however proper their action was, however supportable the action was by all the engineering and environmental standards, that, nonetheless, there would be an outcry in some quarters. The expectation of the Commissioners did not miss the mark.

The simple fact is that we are dealing with a problem that did not have any total acceptable environmental solutions. No matter what alternative was used, bypassing into the river was required. The Commissioners just did not have the luxury of holding the problem in suspension for two-thirds or more of a year.

The job of the Commissioners is very simple, when the choice which is given to them to solve a problem is a good choice, as opposed to a bad choice. But, when all of the solutions are undesirable from an environmental point of view, then the Commissioners must be guided by the opinions of the experts as to which of the solutions is less undesirable.

The Commissioners are satisfied now, as they were when they made the decision, that they have fulfilled to the highest degree their responsibility to preserve the environment and that what has been done is the most acceptable environmental solution to an enormously difficult problem.

Our Chief Engineer, Rocco Ricci, is here today and will give a comprehensive, technical explanation to this Committee of the problem and its solution.

I would like to, again, on behalf of the Commissioners, extend our appreciation to the Committee for the opportunity to come and present the relevant facts to this Committee. Thank you, Mr. Chairman.

SENATOR GRAVES: Mr. Ricci?

MR. RICCI: Mr. Chairman, the issue which has been discussed extensively and which is the subject of this hearing is down, as we see it, to a basic question and that is: Did the Passaic Valley Sewer Commissioners act responsibly in undertaking to repair the 60 year old brick sewer. Now, there are some self-proclaimed experts who would view this as a simple choice of waiting until the repairs could be affected without bypassing waste water into the Passaic River. Unfortunately, the Commission and its staff have to deal with the facts as they are and make professional judgements which will result on a minimal effect on the communities which we serve and the Passaic River which we are charged by law with protecting. An impartial analysis of the facts, in my judgement, will lead to the one conclusion and that is that the situation had to be dealt with in accordance with the repair program which we now have underway. The factual information, carefully and responsibly evaluated, would establish a number of important facts.

We have on the tripod a sketch which shows the position of our interceptor which is in a state of collapse and its proximity to two water mains, one of which is a 12 inch main and one of which is a 6 inch main. The 12 inch water main was shut off because of the concern of collapse and eventual rocket entry of the water under pressure down into our sewer with immediate collapse of that brick sewer. That was based upon the recommendation of an eminent soils expert. To the right, you see the 8 inch gas main which ruptured on March 30, 1980 and which is presently in a situation similar to what you see there with the sand bags and a temporary curbing. In addition to that, there a large structure, industrial structure, which you see on the extreme right-hand side, which we also have to be careful of because that is an old structure and movement of the soil could cause significant structural damage. In the judgement of soils experts and our consultants, and I concur, failure of the interceptor would result, in all probability, in the rupture of these utilities and unknown potential damage to that building. Investigations by our expert, Charles A. Manganaro, and the soils experts, Muesser, Rutledge, Johnston and Desimones, clearly established the fact that the interceptor in question had sustained severe crown(top of pipe), spring line (at a horizontal line) and invert cracks, which created a situation whereby the sewer is and was in imminent danger of collapse. These cracks provide the avenue by which the soil moves into the pipe and out from underneath the roadway and utilities, and I think that that is a significant thing to understand. The soils surrounding the pipe is saturated with water. So, there is, essentially, a level of water way up close to the top of the surface of the ground and with the opening in the pipe, you get movement of the soil, as it is suspended in that ground water, and it is the voids that are created by the displacement of that soil which has created the significant problems outside. As more and more soil moves, the pipe, which is a brick sewer built some 60 years ago, becomes less stable because there is less support outside the pipe than the soil structure. That is an important concept to keep in mind.

Now, our consultants, during April, rushed to complete the soil borings analysis, as well as carry out the borings themselves, and the preparation of the necessary environmental report. This report, which is entitled, "Environmental Assessment Statement..." is included as part of the package that we have provided for you. But, more importantly, it discusses the viable, and I want to stress the word viable, options that we had for correcting the problem, including the construction program which is now underway. I do want to stress this very, very clearly because there are some that have said that we have now addressed all of the

available options. This same report discusses, as an alternative, the construction of this famous temporary pumping station, which would be some distance upstream because it has to be built at a section of the sewer where it is made of concrete. It can not be built in a section adjacent to the brick sewer. The construction would include the digging of a large hole adjacent to the interceptor and the installation of temporary pumps. It would include the construction and laying of two 24 inch force mains or pipes right on the road surface of about 1100 feet each. In addition, there would be about 1700 feet of 42 inch pipe, all laid on the surface. The temporary pumping station would have to be installed adjacent to the interceptor upstream, as I said, of the proposed area. During the discussion of the pumping station option, and I want to make sure everyone hears this loud and clear because there have been allegations of holding back information, during the discussion of the pumping station option, it is indicated on page four of this environmental assessment report, "This dry well would accomodate two PVSC owned, skid-mounted, diesel driven pumps with gear reducer. Each assembly would have to be overhauled," because they are in a state of disrepair. "Each pump is capable of handling fifty million gallons a day."

Now, alternatives to the overhaul of these existing units, these existing engines that we have, would be to purchase two large electric motor driven pumps, which we also discuss in our environmental report. However, an important fact, which must be clearly established is that regardless of whether we use the existing engines or whether we go out and purchase new engines and pumps, the availability of this equipment is not the limiting factor in the time required to implement the option of a temporary pumping station and force mains. That's a very important point for everyone to keep in mind. Our report indicated that this option would require a total time of 1.1 years for the planning anc construction. Our consultants made it very clear in the report that they believed the interceptor would have failed long before this period of time would have been expired. Attached, you will find, as Exhibit 1, the minimal time that would be required to build the pumping station and the above ground piping. You will note, and we tried to depict it on this chart as well, you have a summary table in the exhibit that we furnished, but you will note that from the initial point of beginning the planning, that is survey and borings and one of the routings of the proposed pipelines, as well as the proposed pumping station upstream, that takes, as a minimum, 245 calendar days. This is compared to the same activities for the current project, which takes 75 calendar days from the initiation of design. However, I do want to stress that this estimate of 245 calendar days for the pumping station alternative is considered by any reasonable professional to be a most optimistic schedule since it does not include any possible weather delays which would affect this above ground construction. It does not reflect the many delays in approval, bidding problems and construction difficulties which invariably enter into such a project. The original estimate of the total time of 1.1 years also included a 45 day period after the repair for cleaning up, removing of pipes and what have you and that is shown at the tail end of the depiction that you see up there. Furthermore, the 1.1 year estimate also included what we considered to be realistic time frames for each of the requisite steps for moving ahead with such a project. But, this is a very important consideration, gentlemen, which I want to make sure everybody really understands. It has to be pointed out that even this option, if we had the time, even this option would entail some four to five days of bypassing because the procedure requires the construction of bulkheads in the sewer upstream and downstream from the

area of repair. We have to stop the water from coming in. Once the repairs are completed, we have to go back in and remove the bulkheads. So, it would also require a four to five day period of bypassing. Therefore, the Passaic Valley Sewerage Commissision was faced with the following choices: A - Repair the damage to the interceptor immediately, as recommended by its professional staff and consultants, before the pipe collapsed and do that during the 19 day period of bypassing; or B - Delay the repair for the implementation of a temporary pumping station alternative, which, in itself, requires a four to five day period of bypassing. This option was not considered viable because it was the judgement of all the professionals involved, people who have had experience and training in their respective areas of expertise, that, "the interceptor will have failed long before the temporary pumping station option could be implemented." A collapse, and this is something that also must be understood, a collapse of this brick sewer, before we could effect the repair, would involve a substantially longer period of bypass and, in all probability it would be during the Summer when it is even warmer than it is now, and that was estimated to be of the order of magnitude of ninety days. That is a much longer period of bypass than the 19 days that we're talking about for the current program. Failure to move as we have on an emergency basis would result in the destruction of the nearby gas and water mains, which I pointed out before, and possible damage to the nearby structures and would create a very serious community problem. There would be a big hole in the ground, to start with, and the hole would be full of sewage. Therefore, as indicated previously, a careful and impartial analysis of the facts would lead any responsible person who is charged with making decisions to the same conclusions that were reached by the New Jersey Department of Environmental Protection, the U.S. Environmental Protection Agency, and those of us as the Passaic Valley Sewer Commission. Any other course of action, in my judgement, would have been irresponsible.

In support of my statement, as to the inevitable conclusions, I would like to outline for you and submit for your further consideration appropriate documentation which lays out in detail the facts. As a result, I am enclosing and you have before you a copy of an affidavit, as Exhibit 2, which I previously prepared and which was submitted in court proceedings in the Chancery Division of the Superior Court and the Appellate Division, where unsuccessful attempts were recently made to have the courts issue an injunction to stop the work. I am certainly not going to attempt to go through that entire document. However, I think it is appropriate to summarize a number of the more important actions taken and the approvals obtained from various regulatory agencies.

1. Towards the end of 1979, that is the Fall of 1979, the City of Paterson did notify our consultants of continual settlement in the pavement on River Street between 2nd and 3rd Avenues. Now, this set into motion a series of internal inspections and engineering analyses which ultimately led to the conclusion that the sewer structure was in a serious state of rapid deterioration. Now, what we are attempting to show, and it is rather difficult, are photographs, and I know it is difficult to see from the distance that you are at, but I would like to have them passed around so that you can see them up close. We see, on March 5, depressions in the road surface, certainly something that we became concerned about ever since the Fall of 1979. On April 11, you will see a worsening condition in that road surface. The last week in April, I think it was around April 28, over about a three or four day period, there was a rapid settlement of the pavement, so much so that it is approximately two to three feet of additional settlement. All this

time, we were continually paving and sealing the surface so that surface water would not get down into the soil. Those pictures, I think, vividly address the skepticism of some who would say that we don't have a serious problem. But, I also want to point out that we have pictures of the inside of the pipe which were just taken recently on June 10. They could only be taken after the sewage was pumped out of the area of concern. The first group that see on the top was an interior inspection on January 20, at which and for the first time, we were able to detect, not by seeing, but by literally feeling openings beneath that sewage that flowing in the bottom of that pipe. Now, I do want to go back and make something very, very clear for those of you who may never have been in a situation like this. From the time that the City of Paterson notified us of the settlement in the road surface, our consultants and our own staff were continually carrying out investigations and it is important to recognize that you can only get in that sewer for inspections sometime around two or three o'clock on a Monday morning, if the weather has been cooperative and if you had not had rain or a long period o rain, which keeps the flow so high in there that you can't get in. So, that is certainly one of the things that contributes to interference with rapid inspections. But, in December, we made the initial inspection inside the sewer, although early inspections were made of the manhole itself. At that time, there were no visible signs of serious cracking. There were a number of leaks, relatively minor leaks that were detected and when you see the pictures, you will see some of the water coming in. But, there were no signs of cracking, even after an extensive investigation. Our consultants recommended, at that time, that the PVSC staff go back when they should, that is if the weather cooperated, early on a Monday morning, to pack those relatively minor leaks. That took place on January 20 of 1980. While the workmen were trying to plug up those leaks, our engineers and the engineers from Manganaro continued a further inspection of the structure and at that time, the engineers detected a crack below the surface by the feel of their boots. That's what you are working with. You can't really see it. You feel it. They detected along the crown of the top of the pipe a hairline crack. Now, if you then compare what I just attempted to describe to you with the situation that you see in the pictures dated June 10, you will see the extent of the damage both in the top of the pipe, in the walls of the pipe, that is the horizontal axis, and very importantly, the inverted pipe. You must keep in mind what I said earlier. It is all of those openings which permit the ground water, which is really pressure on the pipe, permit the ground water to carry the soil into the sewer and it is almost like the proverbial dike. Once you get the initial opening, then the structure rapidly begins to deteriorate and that is exactly what has been happening.

2. Now, the most graphic example of the seriousness of the situation was the sudden rupture on Saturday, March 30 of that eight inch high pressure gas main. Because of that, we also cut off the water main, the twelve inch water main, because of the severe danger to our system, as well as the water supply. These events made it clear that action had to be taken on an emergency basis and the sewer line would not tolerate extensive delays in its repair.

3. All required preliminary engineering work, including an Environmental Assessment Report which I have referred to and which is attached to my affidavit were completed toward the end of April. This documentation which defined the various alternatives available to us, served as a basis for my discussions with representatives with both the U.S.E.P.A. and the N.J.D.E.P. on May 1, 1980.

4. Appropriate formal submissions were hand delivered to the respective agencies on May 2, 1980.
5. Letters were also hand delivered on May 2 to each of the municipalities and their engineers bordering the Passaic River, appraising them of what was about to take place. A Public Notice was also published on May 6 and May 7 in the Bergen Record, Star Ledger and Herald News.
6. In letters dated May 9 and May 13, the N.J.D.E.P. approved the proposed 19 day period of bypassing.
7. In a letter dated May 15, the U.S.E.P.A. similarly approved of this action.
8. On May 13, notices were hand delivered to each of the affected municipalities and their engineers in which we indicated that we were going to have a public meeting on Thursday, May 15 to clarify any issues and to answer any questions regarding the program which was underway.
9. A similar letter and a copy of the documentation was submitted by hand to the Passaic River Coalition as well.
10. Only one person attended our meeting on May 15 before the Commissioners to address the issue. Mrs. Ella Fillipone of the Passaic River Coalition made a statement which is summarized in Appendix C-8 of my affidavit.
11. Subsequent approvals were received from the EPA to award the contract with the concurrence of the New Jersey Department of Environmental Protection.
12. Again, on May 29, 1980, we hand delivered letters to each of the affected municipalities and their engineers appraising them of the probable start of the bypassing period.
13. Internal inspections, I want to stress, have been made of the sewer dimmensions, internal dimensions throughout this entire period of time because this is an indication of what is happening to that brick sewer. These internal measurements have shown a progressive diminishment of the crown heigth, that is the vertical dimension, and you can see it up there from January 20, which is our base line. There has been a diminishment of one inch as shown by measurements taken as recently as June 10, one inch diminishment of that vertical dimension and a corresponding increase in the horizontal dimension. Remember, that was built as a circular sewer. Now, we were beginning to get an eliptical shape and as you have that movement, the soil moving in, the cracks were getting opened even further and we were getting to a state of imminent collapse. All of those facts presented to you made it clear that we had a very serious situation.

No long range solution which depended on the assumption that the sewer was in a stable condition--and what I have attempted to show you just now is that it was not in a stable condition--was acceptable from an engineering point of view. All of the alternatives that others have suggested were fully considered and were rejected because of the rapidly deteriorating condition of the sewer.

Of course, there is great concern by the PVSC for even a short-term bypassing of sewage to the Passaic River. We are, in fact, charged by law with protection of that river. However, to place this in proper perspective, it is important to remember that the City of Paterson has combined sewers. A combined sewer, as some of you might know, carries municipal and industrial waste whenever there is no raid and that flow is frequently referred to as "dry weather flow". Now, what has been built on each of those lines in the City of Paterson is what we refer to as a regulating chamber and we have attempted to show that there. During dry weather, all of the flow comes down the City of Paterson's combined sewers, through the regulating chamber, and is directed into the PVSC's interceptor and goes down our treatment plant for treatment.

Whenever it rains, the rainwater runs off the street down into that same pipe and mixes with the sewage and we now have what we refer to as combined sewage. In a normal rainstorm, there is such a volume of waste that much of it has to be diverted into the Passaic River and that happens just about every time it does rain with a small portion still going into the Passaic Valley interceptor. So, I think you want to keep the right perspective. Now, the large volumes of sewage, of course, which goes into the river carries with it a substantial pollution volume. It is necessary, through these regulating structures, to bypass the excess flow, as I indicated, and I want to point out that these bypasses are the same identical points which we are bypassing for purposes of construction. It has been estimated that the numerous occurences of such combined sewage overflow to the River, on an annual basis, discharges approximately 4.5 billion gallons of combined sewage a year from the combined sewers in the City of Paterson. The combined sewage overflow into the whole Passaic River, that is from the Great Falls down to the Newark Bay, in a year is estimated to be of the order of magnitude of 7.6 billion gallons of waste. This is presented, in no way, to minimize the seriousness of bypassing during this 19 day period, but merely to make it clear that the combined sewers of Paterson are continually bringing about an insult to our aquatic environment, which is of concern to all of us. These points of bypass are identified in the National Pollution Discharge Elimination System permits which we have from the federal government and these permits allow the stormwater bypassing, as I have outlined.

Now, the Passaic River will never truly make a recovery to the degree of purity envisioned by many people until appropriate corrective action has been taken to minimize or prevent entirely the discharge of combined sewage from the City of Paterson. We have been directed by the EPA and the DEP to undertake appropriate studies to lay out alternatives for dealing with this combined sewage overflow problem. We would expect, over the next several years, the cooperation of the City of Paterson in the resultant investment of funds that might be required to implement the recommended program.

There is another problem, though, that must be dealt with to increase the carrying capacity of the interceptor system which serves Paterson, Haledon, Prospect Park and Hawthorne. The PVSC, sometime toward the end of 1969, retained the services of our consulting engineer, Manganaro, to prepare an appropriate preliminary engineering study for the ultimate design and construction of a relief interceptor sewer. Construction of this relief interceptor would have taken a significant load off the existing sewer which we are talking about and perhaps enabled more frequent inspection, although I want to point out to the Committee that an inspection was made of this very same stretch of brick sewer in 1977 and it was essentially dry at that time or there was minimal flow in the sewer when they were making their inspection. The USEPA and the NJDEP would not approve of the implementation of the recommendation of this relief interceptor and for good reason at the time.

Unfortunately, the internal collection system of Paterson is old, in a bad state of disrepair, has high rates of infiltration and as stated previously, is a combined system. All of these factors led to a conclusion by the EPA and DEP that appropriate studies must be completed before PVSC would be allowed to build the relief interceptor. PVSC is still committed to the construction of the necessary relief interceptors to properly deal with the sewage which is generated by the aforementioned municipalities and will take action to construct it just as soon as we have received the approvals of the regulatory agencies. Of course, we must also establish the

necessary funding sources because the estimated cost of this work is about $70 million.

However, let's get back to the immediate subject. I would like to repeat that the emergency problem which I attempted to outline for you is one which required immediate action. The expertise of the PVSC, professional consultants and the technical and professional staff of the USEPA and the NJDEP have all given this matter their attention and all have agreed that there is no feasible alternative, given the facts, to the 19 day period of bypassing. Any other course of action, in view of what I have presented to you, I believe, would have been irresponsible by those charged with making the decisions in terms of protecting public health and welfare, which is certainly one of the major issues that is paramount in our minds, as well as protecting the environment. We believe, we know we have selected the correct professional course of action and we believe it will result, know it will result in the least damage to the environment. Thank you, Mr. Chairman.

SENATOR GRAVES: Senator Rodgers?

SENATOR RODGERS: Mr. Ricci, how deep is this?

MR. RICCI: How deep is the sewer? I think it is 35 feet to the bottom of the pipe. We have a dimension on there. I think it says 35 feet.

SENATOR GRAVES: Mr. Ricci, what we want to establish, in your professional opinion--you are formerly the head of Environmental Protection for the State of New Jersey?

MR. RICCI: That's correct.

SENATOR GRAVES: What the Committee wants to establish with all the salient features that you brought forth and all the pertinent data, so that we can spell it out and translate it, I guess the proverbial bottom line is what we are looking for. Was there an alternate way to solve this problem than the way that you are doing it? In other words, if you had built the temporary station, if you had brought pumps in, if you had a bypass the line that could no longer take the effluents or whatever else was being discharged through that sewer, could it have been done? There will be people that will come to the stand, I'm sure, before this is over and make this charge. I'm not trying to head off their particular problem, but we, as senators, have a sworn duty and obligation to search and find the the truth and bring forth the answers. If there was an alternate means, what would it have cost and why wasn't it used, simply and without long discussion?

SENATOR RODGERS: Before you answer that, am I correct that I heard you say that there was no feasible way?

MR. RICCI: That is the essence of what I attempted to point out. First of all, Senator, in answering your question, cost was not a consideration. I tell you that very, very clearly. It was not a consideration. The report addresses an alternative, which is this so-called pumping station alternative. It was not considered a feasible alternative by the professionals involved because it takes too long to implement. The professional judgements made, and certainly in my opinion, if I looked at the pictures that I have shown you, the settlement in the pavement, the damage to the sewer, the movement of the dimensions of that sewer, that sewer was going to fail. So, therefore, it was not a feasible option.

SENATOR GRAVES: Then, your response is that there was no feasible way?

MR. RICCI: That's correct, no feasible way to relieve the situation.

MR. SEGRETO: Mr. Ricci, I think it would help the senators if you would explain what the consequences would have been if, while we were waiting, the sewer had collapsed.

MR. RICCI: Of course, I did mention that in my statement. There are too many vivid examples of places where sewers have collapsed in Newark and, I dare say, probably in Paterson, although I am not aware of any specifically, but when a sewer goes like, especially in this kind of soil, which is a material which flows very readily in the presence of water, and there is a high ground water table there, that rapidly develops into a huge hole. In some cases trucks or cars have precipitated that final movement and they end up in the hole. You destroy the sewer, obviously, and every likelihood--there was a sewer either in Detroit or Cleveland which was built around the same time, same era, used the same construction techniques, brick, and they had a collapse and what was initially a short area of deficiency ended up as more than a thousand or more feet of brick sewer that just fell in because it is like the proverbial arch of the old days. The keystone holds it all together. If you start pulling or the the flow of water and soil caused any of those bricks to fall out, then it is a cascading kind of thing. So, you would be likely to end up with a huge hole and many, many hundreds of feet of sewer which would have to be replaced. It would require immediate bypassing, and I mean immediate. It would be a serious emergency. We would have to dump everything out into the River immediately to stop the flow from all of these upstream discharge points from getting into that area or else we would be flooding the streets, in all likelihood, and that period of bypass would last, as I mentioned in my statement, in our opinion, for about ninety days, while we affectuated the replacement of the sewer. Those are the real facts that we were faced with.

SENATOR CAULFIELD: What are you doing now to assess the effects of the bypass of the sewage into the Passaic River?

MR. RICCI: First of all, the PVSC runs a continual monitoring program of the Passaic River. We take samples and analyze them. That's one of the things that we're charged with doing. But, as part of the approval from the State of New Jersey, the DEP, we are required to monitor eight specific points up and down the River, all the way down to the Newark Bay and analyze them for various parameters, chemical and biological constituents, including dissolved oxygen and so forth. We've been giving that information to the DEP and EPA as well as our own records.

SENATOR CAULFIELD: Has any assessment been made at this point?

MR. RICCI: My assessment of the facts that I've seen is that there has been minimal reduction in the dissolved oxygen. You may want to address this to the state. They may have a different perspective.

SENATOR CAULFIELD: But, you have a charge in this too.

MR. RICCI: Yes. The D.O. has been minimally affected at this point in time. The bio-chemical oxygen demand, which is the measure of how fast organic materials decompose and thereby using up oxygen in the River, has not been affected to any great degree. Chemical oxygen demand has gone up, but again, not to an alarming degree, but it has gone up. I don't want to kid you on that, and that is more representative of some of the industrial discharge that we have. The fecal chloroform, which is bacteria that you find in sewage because of the human discharge and what have you, that certainly has gone up and our results show that and that certainly is not a surprise to anyone. Most of the other parameters that are being analyzed, the chemical constituents, have not changed all that much. It shouldn't be too surprising, to some degree, because the flows in the River are not like they would be in August, if, in fact, the sewer failed because we didn't take emergency steps. In August, you have high temperatures, which causes a greater problem in terms of keeping oxygen in the River.

Also, in August, the flow in the River is substantially less than it is right now, and we've been blessed with relatively low temperatures during this period of time.

MR. SEGRETO: Senator, just to amplify that, the PVSC is mindful of its responsibility not only to correct the repair, but to have a continuous monitoring of the River to see what the effect of this necessary bypassing is and just as a demonstration that we are monitoring, we have prepared and we have here, if the senators are interested, a graph which shows the effect on the oxygen levels. If it is of any interest to you, we could show you the dissolved oxygen graph prior to the bypassing and during the bypassing. You could see graphically what changes there are. We are mindful of that

MR. RICCI: Thank you, Mr. Segreto, for reminding me of that. Ed, perhaps you could describe specifically what is there. I can't read it.

MR. MOLLER: The lower line, the horizontal line is miles from Little Falls going downstream towards Newark, the length of the River going downstream. The various parameters, dissolved oxygen, are in parts per million and the various colors show the measurements that we have taken at different periods in time.

MR. SEGRETO: Will you focus, Mr. Moller, on the readings immediately prior to the bypassing and then the reading immediately after the bypassing?

MR. MOLLER: Before bypassing is the red line, starting with readings taken at Little Falls, the dissolved oxygen went up close to saturation and it dropped off a little bit as it went through Garfield and increased again and then gradually dropped off as we went through the Bellville and Newark area and the last reading we have on our graph is the Jackson Street Bridge, which is a point opposite Harrison. It dropped off to three miligrams per liter. That's the red line, before bypassing started. The other colors, the green is June 2, before bypassing. Again, the situation in June was a lot lower and had nothing to do with bypassing because we hadn't started the job yet, but the amount of flow coming over the falls was lessened and the amount of dissolved oxygen for other reasons was lower. However, it came up and it followed this path. Now, during bypassing are the lines of measurements we have taken of the River on our trips. The purple is June 5. The green is June 6 and the blue is June 9.

MR. RICCI: May I just make an observation here? To the right, you are showing values down at the lower part of the River and more frequently than not, those values are reflective of either combined sewer discharges, because Newark has similar problems, and also backflushing from Newark Bay and New York harbor. So, it is not necessarily representative of what is going on up here.

MR. MOLLER: Naturally, there are variations, ups and downs,but generally, the path after bypassing is somewhat in the same range as the red line and the green line before bypassing. There hasn't been any substantial change in the amount of dissolved oxygen in the River, in the area, the Paterson area going on down to the Newark Bay area.

SENATOR GRAVES: All right. I think the state stenographer could use about five minutes off. So, we will take a five minute break and resume after the break. Mr. Arnold Schiffman from the New Jersey Department of Environmental Protection will be the next witness.

(at which time a five minute recess was taken)

SENATOR GRAVES: We will continue with our hearing now. Would you please introduce yourself, please?

A R N O L D S C H I F F M A N: My name is Arnold Schiffman and I am the Director of the Division of Water Resources in the New Jersey Department of Environmental Protection.

SENATOR GRAVES: You know the reason that we are here. We are trying to find out if there was an alternate means to give relief to the sewer break in the City Paterson, which is causing a 30 million gallon discharge into the Passaic River and, if there were, why wasn't it used and what is the harmful effect to our constituency along the Passaic River on a temporary basis and what will be the permanent problems that we might be saddled with for quite some time? Could you help us with some of those?

MR. SCHIFFMAN: Sure. I'll be very brief. We became aware of this problem in the beginning of May. A report was submitted to us. We evaluated the report. Based on that evaluation we determined that an emergency situation did exist in regards to that brick sewer. We approved the P.V.S.C. plan to proceed with immediate repairs. I want to make it clear that if they did not proceed with immediate repairs, which involved the bypass into the river, I would have ordered them to do so. I basically have two difficulties with the occurence of this situation. One, I think we could have done a better job on public notification. Two, I do not care to be put into the emergency type situation, nor does the Department care to be put into this type of emergency position. Our options were really limited in this case. I can't help but believe that there has to be a better way to deal with these problems. There is no question in my mind that this will occur again. It could occur tomorrow and we have to have some kind of emergency response plan. This is not, by the way, unique to this part of the State. What I am saying applies to the whole state. Exactly what we could better, I don't know. It will have to be studied and evaluated.

As far as the damages to the system, I would simply say that I believe that when the discharge is finally stopped the situation will improve. That doesn't mean that this was a good thing to happen. It is not, but keep in mind that the whole nature of a our water pollution control effort, our cleanup of streams, rests on the assumption that when we stop the discharges, pollution is abated and the streams cleanse themselves. It is the whole basis our pollution clean-up effort. The data that we have at the present time indicates that effect is not as bad as I personally feared it would be. Frankly, that is just due to circumstances, weather. We've had a fair amount of rain and, not only that, it has been cool. I would hate to think what would have happened if this had occured in the summer months, when there is little flow in the river. As far as any permanent damage, I don't think there will be any, but that will have to await the further analysis after the sewer line is repaired, when we can make more detailed evaluation. It is definately discharging a substantial amount of suspended meterial, organic material and industrial waste into the river; more than is normal. The amount that is normal is intolerable. This just makes it worse. As I said, the information that we have to date shows that it is not as bad as I feared it would be. I would be happy to answer any questions.

SENATOR GRAVES: Senator Rodgers?

SENATOR RODGERS: Would you agree that there was no feasible alternative?

MR. SCHIFFMAN: Yes, I do agree. Let me put it this way. The information

presented to us was evaluated. I evaluated it and my staff evaluated it. In the description of the problem by a professional engineer, there are certain code words. Those words said to me, "high probability, imminent failure." If that had occured, the damage would have been much greater. I don't think there is any question about that in my mind. Now, that doesn't mean that it would fail imminently, one hour from now, a day from now, a week from now, a month from now. All it meant was that it was going to fail. Now, if we didn't act immediately--as I said, if they didn't act immediately, I would have ordered them to do so--if I didn't and it failed, then I would be sitting before you and you would be waving this report in front of me, asking if I read it, was I aware of it and why didn't I act. This is not an unusual type of case. We have these types of situations not only with sewers, but with dams, where I react the same exact way. All I am saying is that I don't care for these emergency type situations. It puts me in a position--the decision was very simple, really. I just don't care for that type of situation. I think we can do a better job on it, not only for this part of the state, but for the whole state. This is going to happen again and I don't want to be sitting here again. I don't know if it is going to happen next week or next month or next year, but I can tell you that the systems are old. I don't know if there is any easy answer. It is going to cost money and money is going to have to be spent making evaluations for some type of emergency response plan. Whether we can have equipment on hand, whether it will be brought to play rapidly is a question that there is no answer for right now. I don't know if the answer is yes and we won't know until we study it and evaluate it.

SENATOR GRAVES: Senator Caulfield?

SENATOR CAULFIELD: In your opinion, were adequate means taken, adequate steps, to minimize the harmful effects, such as chlorination?

MR. SCHIFFMAN: I don't believe there was much else to be done. Chlorination, itself, is a problem. There is a question as to its effectiveness and keep in mind, Chlorine itself has some toxic properties to fish and wildlife in the river. We have problems with normal chlorination right now. I don't think that was advisable, frankly.

SENATOR CAULFIELD: Do you know what was done in this case?

MR. SCHIFFMAN: There was no chlorination.

SENATOR CAULFIELD: Was anything done or was it just bypassed into the River?

MR. SCHIFFMAN: The immediate repairs were effectuated. There was nothing done in terms of dealing with the overflow. Possibly, as we study this problem, maybe some other methods can be developed. I am just somewhat skeptical at the moment. The point is, I don't know.

SENATOR CAULFIELD: This was just raw sewage that was bypassed into the River?

MR. SCHIFFMAN: That's right. The only difference between this sewage that was bypassed and the material that comes out of the regulators under high flow conditions is that this is more concentrated because it is not diluted by rainfall.

SENATOR CAULFIELD: I heard mention made of the signs coming down on the 23rd of June. Those are the warning signs, I assume. Does that mean it will be safe at that point?

MR. SCHIFFMAN: No. I haven't made up my mind if I want to take them down, frankly. The reason that I had the River posted was that we seem to have difficulty, from reports that I had from the field of actually convincing people that this was a real problem. So, I had no alternative than to post the River. I'm not so sure

that helped notify people any better, frankly. I think we got good cooperation from the press and local government to make people aware, but some of the reports that I had was that maybe people weren't paying that much attention to it. So, I ordered the River posted. I'm not so sure I want to take the signs down, because we have overflows in this area.

SENATOR CAULFIELD: So, we're not so sure that they're coming down on the 23rd, then.

MR. SCHIFFMAN: I'm not so sure that it is necessary to leave them up, frankly. But, from my viewpoint, the River is still, even when this overflow stops, the situation is still not a good one. We still have inadequately treated waste on the River and it is going to be like that for a while.

SENATOR CAULFIELD: Is there any estimate when the River will be back to where it was, as bad as that may have been?

MR. SCHIFFMAN: When we get the treatment adequate for all sewage treatment plants and when we eliminate the combined sewer overflow.

SENATOR CAULFIELD: I'm addressing myself to what it was before this incident. When will it be back to that stage?

MR. SCHIFFMAN: That's hard to say. Some of the information that I have before me, the differences that were seen are within the range of differences that occur normally throughout the year. So, the answer to your question, I'm afraid to say, is that there may not be that much of a difference, although there has to been some, but it is not that measurable. It looks like it is within the normal range of values that we see. But, again, it is complicated. The values that we are measuring are dependent upon the loadings to the River, the flow, the temperature and a whole bunch of other parameters that change. So, it is difficult to make a comparison. All I can say is that it is worse, obviously, even though I may not be able to measure it precisely.

SENATOR CAULFIELD: If we happen to get a very hot spell right now, will that be a problem?

MR. SCHIFFMAN: That would be a problem. It is almost finished, fortunately, but if this would have been during hot, dry weather, the situation would have been aggravated by many, many times.

SENATOR CAULFIELD: You've made the statement at least twice that this is going to happen again.

MR. SCHIFFMAN: I think it is because of the nature of the old systems. These systems are very old. This is not the only system of this kind. I'm not saying that it will happen in Paterson, but I'm saying that it will happen within the system. I understand that it has happened before.

SENATOR CAULFIELD: That is kind of a dire prediction.

MR. SCHIFFMAN: Well, all I am saying is that we have to take some kind of action on this. We have to have a better plan to do it. We are pretty inventive in this state, we have a lot of resources and I think maybe we can come up with a better way, but we won't know until we try it. I have a selfish reason for saying that. As you may have noticed, I don't care for this type of situation at all. So, we're going to do something about it. I just hope that we come up with an answer. We have some good engineers in the state and I think we'll be able to do something. What, exactly, I don't know and how much it will cost, I don't know.

SENATOR GRAVES: Okay. You say the problem is almost behind us. Has the PVSC set a date? Do they still feel that it is going to be over in the 19 days?

MR. SCHIFFMAN: They better be. That was the terms of condition of our approval. As far as I know, they are on schedule.

SENATOR GRAVES: Is your Department monitoring the River on a daily basis?

MR. SCHIFFMAN: I have some of my staff with me. What is the period of monitoring? This is Pete Lynch, one of my engineers.

MR. LYNCH: The monitoring is taking place twice a week. It was initiated before the bypassing began and it will be continued on that same frequency until we seen that conditions appear to have returned to the prior state.

SENATOR GRAVES: Did you say twice a week?

MR. SCHIFFMAN: Yes.

SENATOR GRAVES: Do you think that is a good approach at this particular time? Wouldn't it be better if it was done twice a day?

MR. SCHIFFMAN: I think the monitoring is adequate to show the effects on the River. You are dealing with rapid changes. Increased data--let me see if there is a good way to put this--that is enough information for me to assess the situation on the River. I would not know what to do with increased data. What would I do, no matter what the values showed? As far as I am concerned, the situation is bad now and I have all the information I need.

SENATOR CAULFIELD: But, that could worsen, particularly with hot weather.

MR. SCHIFFMAN: If there was any change in the--as I said, we're fortunate. It is really the rainfall. We've had some substantial rainfall, which brings the ground water table up, which helps keep the stream running, in addition to the runoff. We're also looking at the flows. If there is any marked change in the next few days, we would increase out sampling. I would just point out to you that I would not know what action to take if things worsened.

SENATOR GRAVES: If you didn't, how would we. We turn to you for advice.

MR. SCHIFFMAN: If it looked like the flow situation was changed drastically, we would increase the monitoring. All I am saying is that we have taken, as far as I am concerned, a situation that is bad.

SENATOR GRAVES: Nature is playing the most cooperative game.

MR. SCHIFFMAN: We're lucky. If it was to worsen, it would worsen. That is what would happen.

SENATOR GRAVES: Can we take credit for that?

MR. SCHIFFMAN: I don't care who takes credit for it. All I am saying is that we were lucky. Keep in mind that this was part of the decision that was made. As we go more into Summer, it would be worse. That's why I was very concerned with the estimates of the times, the timeframe that would be if the sewer line failed.

SENATOR CAULFIELD: Just out of curiousity, is there any fishlife there?

MR. SCHIFFMAN: Sure.

SENATOR CAULFIELD: Is there still any after the bypass?

MR. SCHIFFMAN: We haven't noticed any documented fish kills.

SENATOR CAULFIELD: What kind of fish do we have there, if you know?

MR. LYNCH: I understand it is basically lower forms of fishlife. It is certainly not a trout stream, by any means. There are carp and there were some reports of some bass starting to return to the River.

SENATOR CAULFIELD: All up and down the River, from Newark Bay up to Paterson?

MR. LYNCH: I would assume that as you approach the Bay there would be less fish life because of the increased downstream contamination.

SENATOR GRAVES: What potential danger do we have?

MR. SCHIFFMAN: In what respect?

SENATOR GRAVES: Because of what is being done?

MR. SCHIFFMAN: The river is now worse than it was for fishing and swimming. It was not that suitable in the first place. You have to understand that all this did was make a bad situation worse. That's all it did and until we correct all of the problems here, you're going to have water quality problems. Now, keep in mind that there has been improvements over the years. I don't want to mislead you on that. There have been improvements over the years and this represents a setback and it is very bad to have a setback. It is additional loading into the stream and all I am concerned with is that I look at the situation and I see that it is bad and it going to happen again and I am convinced that we must do something to react better to it.

SENATOR GRAVES: You're going to set the wheels in motion?

MR. SCHIFFMAN: Yes, that's been made known. It is going to be the responsibility of the Authority and the State to do so. We will likely use this system as a model for the rest of the State. It is the biggest system in the State. Anything that we come up with that will work here will work elsewhere. I am optimistic usually. I'm not that optimistic here. One of the problems with this system is that the flows are so large and when you are talking about dealing with large volumes of water, it magnifies your problems. If this would have been a few thousand gallons a day, instead of tens of millions, it would have been much easier to handle. But, when you are dealing with tens of millions of gallons a day of flow in the system, just the flow volume itself makes it difficult to deal with from a practical engineering standpoint. It takes time, it is difficult to do and there are all sorts of other problems. I will note that we have received other reports on this that there were other cracks in other parts of the line that they are also repairing at the same time and if this indicative, it just shows what everybody know, that the system is old and crumbling. It is part of the problem. The Commissioner calls this the problem of New Jersey underground and we're trying to react to the situation, but the dollars are large. Most of the resources come from Washington and we are spending them to clean up and we're going to have to spend a lot more. There's been hundreds of millions of dollars already poured into the improvements of the Passaic Valley Sewerage Commission system and you've heard there is going to be a lot more required.

SENATOR GRAVES: Senator Hirkala?

SENATOR HIRKALA: No questions.

SENATOR GRAVES: Assemblyman Edwards?

ASSEMBLYMAN EDWARDS: I have nothing.

SENATOR GRAVES: Assemblyman Girgenti?

ASSEMBLYMAN GIRGENTI: Just one thing. You said that we have a problem here in terms of the future, but what I am interested in knowing is, right now, how much money have we spent in the past in cleaning up the Passaic River and who is going to be responsible for the clean up now in the future and how much is the figure on that going to be?

MR. SCHIFFMAN: Well, the responsibility is those persons who discharge, either directly or indirectly, which means it comes back to the people who create the sewage and the people who live here. That's where the responsibility lies, although we do focus on the entities called sewerage authorities, whether they be a town or a central system such as the PVSC and for the program, in general, in New Jersey we've spent

in the state--I don't have any figures specifically for any area--but we've spent in the state over a billion dollars over the past ten years and in the next five years we will probably spend a billion more. Now, most of the effort in the coming years is going to be in the area of our worst problems, which happens to be the northeast part of the state and you will see most of the resources spent there. It so happens that we have the biggest problems, the hardest to fix and the most expensive in the northestern part of the state and that is where the effort is going to be. It is a big job and we're moving forward on it, but it is not easy to deal with. When you are dealing with old systems, you are dealing with a lot of the problems of the past and we're fixing it.

ASSEMBLYMAN GIRGENTI: But, this, in particular, has destroyed a lot of your past efforts.

MR. SCHIFFMAN: Temporarily. I feel strongly that it is only a temporary setback. My concern is that we do better next time because, as I said, I can't guarantee you that this is going to repeat, but I feel strongly that the nature of the system is such that it will.

ASSEMBLYMAN GIRGENTI: Not to be repetitive, but just what Senator Caulfield said, there has to be a way of treating this type os situation. I just can't see dumping sewage with the technology that we have the developments that we've come up with over the past years, I think that has to be an A-one priority.

MR. SCHIFFMAN: I agree with you. That's what we're going to do. I don't want to mislead you though. You are dealing with a difficult technical problem because of the large volume of flow. It is not an easy problem to deal with even in an emergency response plan. All I am saying is that we don't have one and that in itself is a major deficiency. You might be interested to know that not only in the area of sewage don't we have an emergency response plan, but in the area of water supply we don't have an emergency response plan. This was recently brought out in the statewide water and sewer master plan. We have a water supply deficit in this area. We don't have an adequate response plan if we have a water outage. So, whether we come up with a good answer remains to be seen. I think we'll come up with something better. Anything is better than running around like a chicken without a head and somebody saying to me, "Make a decision on this," and the decision is already made for me. Anything is better than that.

SENATOR CAULFIELD: I think we agree that water and sewerage is a tremendous problem and isn't part of that problem because they are hidden and invisible until something breaks out?

MR. SCHIFFMAN: You are absolutely correct.

SENATOR GRAVES: Okay. Thank you. You are standing by for a while, aren't you?

MR. SCHIFFMAN: Sure.

SENATOR GRAVES: All right, the federal representative please?

E D W A R D M A R K U S: My name is Edward Markus. I am Chief of the Raritan-Passaic section of the New Jersey branch of the EPA. My project engineer and myself were the primary reviewers of the project from the EPA standpoint and rendered the initial decision from the EPA.

SENATOR GRAVES: Is this on the federal level or the state level?

MR. MARKUS: That's on the state level. I have a prepared statement which I would like to read and then I will answer any questions that you may have.

The Environmental Protection Agency was formally advised of the Passaic Valley Sewer Commission's interceptor in Paterson on May 1, 1980. During a meeting which took place on that date, PVSC was instructed to submit its report on the analysis of alternatives and recommend a course of action to the New Jersey Department of Environmental Protection and the EPA regional office. The need for immediate action on the problem was highlighted by the previous failure of gas line in the vicinity of the cracked pipe, the settling of the street and the threat to other utilities. As a result of our review of the engineering report prepared by PVSC's consultant and our concern with public safety, the EPA concurred with the recommendation for sewage bypassing in order to affect immediate repairs to the interceptor. Our decision took into account the following factors: one, the public safety issue mentioned previously; two, the recommendation of an engineering firm which used its professional judgement in assessing the severity of the problem and the alternative courses of action, and with regard to this issue, I would also like to point out that EPA has to use its own best judgement in assessing such situations particularly when dealing with such sensitive issues such strength of materials and construction methods because if we delayed action on a matter such as this and the sewer collapsed, I'm sure our position would be highly criticized; three, the EPA is naturally concerned with the quality of the Passaic River and our multi-million dollar efforts to clean up the River are ample evidence of that fact. However, it was the Agency's opinion that the short-term bypassing of the sewage would not have a severe effect on the River and we have been receiving data from the Passaic Valley Sewer Commission, which I think backs up some of the statements that were made previously, that the initial effect in terms of a short-term effect on dissolved oxygen and so forth does not appear to be that severe.

While on the issue of River impacts, we also feel that it is important to reiterate some of the statements that were made previously that the River is flowing very high at the present time. Any further delays in the operation or an eventual collapse in the sewer would have necessitated bypassing in the Summer months when the flows would normally be lower and the impacts and odors for the surrounding communities would probably be more substantial, even if the bypassing were for a shorter period of time.

With regard to the immediate impacts on the River, the Agency has sent representatives out to the bypassing sites and from out inspection we have seen that the downstream visual impact on the stream appeared to be minimal. However, of course, we still do acknowledge the fact that there is an impact on the River. In addition, I would like to note that the PVSC and the State have been monitoring the River and have been doing inspections out there. We also have a corps of engineers representative on site representing the Agency.

In terms of preventing situations such as this in the future, there is, understandably, no way of saying that interceptor sewers will never fail in the future. However, the EPA endorses the concept of being prepared, as evidenced by our policies requiring sewage authorities to stock adequate spare parts and to develop replacement funds for major equipment. The problem, of course, is trying to anticipate every type of situation and having the equipment on hand to take care of it. It really represents an enormous task.

In addition, we have been hampered in the past because of the fact that local users have been reluctant to pay the additional costs associated with keeping

spare parts and having the ability to go in in emergency situations because, depending upon the magnitude of the problem that you are talking about, the costs would increase.

In summary, the Agency feels it used its best judgement in addressing the emergency situation and would be willing to work with the PVSC and its member municipalities to determine what measures can be taken to minimize the risk of problems such as this in the future.

I would also like to add that in the beginning of May the regional administrator of the EPA signed a grant for $6 million to the Passaic Valley Sewerage Commissioners to perform sewer system evaluation work in approximately half the municipalities in the PVSC and also to perform a combined sewer overflow study which would take into account the overflow in the City of Paterson.

SENATOR GRAVES: I think what was detected in your presentment here was that, at the present time, number one, you felt there was no other way of doing this than the way it was done?

MR. MARKUS: That's correct.

SENATOR GRAVES: That was the only means available?

MR. MARKUS: It was the only feasible means, it appeared to be, at that time.

SENATOR GRAVES: And the effect on the Passaic River, at this particular point, is of minimal concern? What scale would you put that in?

MR. MARKUS: In terms of the visual impact, it appears to be minimal. As Mr. Schiffman indicated before, obviously, any type of discharge of the quantity of raw sewage that we're talking about is going to have a substantial impact on the River. I don't think anybody can really come out and say exactly what the flow effect would be of the long-term. But, as Mr. Schiffman pointed out, we were very fortunate that the weather conditions have been what they have been and that should help to minimize the impact.

SENATOR GRAVES: Senator Hirkala?

SENATOR HIRKALA: Mr. Markus, from all the testimony that has been presented here, it seems that the federal government agency, the New Jersey Department of Environmental Protection, the Commission engineer and their representatives have all come to the conclusion that this was the best way to go, the 19 day bypass procedure. Was there anyone in your organization, any responsible engineer or official who felt that this was not the best way to go?

MR. MARKUS: No, there was not.

SENATOR HIRKALA: They were all agreed that this was the best procedure?

MR. MARKUS: That's correct. The primary review, as I indicated before, was by my project engineer and also by myself. I am also an engineer.

SENATOR HIRKALA: Thank you very much.

SENATOR GRAVES: Assemblyman Edwards?

ASSEMBLYMAN EDWARDS: A moment ago the DEP indicated that the Northeast part of New Jersey is getting some special attention at this point in time with reference to its sewage and sewerage problems. Does that kind of emphasis that exists on the State level also exist on the federal level?

MR. MARKUS: Well, the Construction Grants Program, which is administered by the State of New Jersey and EPA utilizes 75% EPA funding of projects. That is essentially a joint program on the part of both agencies and the EPA and DEP are cooperating in trying to upgrade the existing treatment facilities which were above

the area of concern of which there are many. There are quite a few municipal and industrial facilities upstream and we are currently in the process of completing plans both on a preliminary basis and on a final basis for upgrading treatment facilities upstream and we are spending millions of dollars in the process.

ASSEMBLYMAN EDWARDS: Well, here, we not talking so much about the necessity to upgrade the treatment facility as we are the collection facility and it is the collection facility in cities like Paterson that are creating the major pollution problems, not the quality of treatment, whether you are upgrading from one level to another. Is there any special consideration being given to cities like Paterson that have such an antiquated system that is so expensive to replace because of the existing construction and utilities that are in place?

MR. MARKUS: Well, half of the $6 million grant for combined sewer overflow work and also for sewer system evaluation survey work is for that combined sewer overflow study. What that will assess is the existing conditions in the River, particularly during dry weather, wet weather conditions, various fluctuations. It is going to be done over quite a period of time and basically, the effects that the overflows have on cities such as Paterson and what types of remedial measures can be taken, what is required from the water quality standpoint and what is feasible on a local scale. The big problem is that it is very easy to go in and say to replace the entire sewer system, put in a new sanitary sewer system. The problem is that it is extremely expensive and we were talking in one other municipality, which I think is smaller than Paterson, about a $15 or $20 million project where they had combined sewers and the main thrust of the PVSC's study, we going to try to study what feasible alternatives exist to upgrade the Paterson system to try to minimize the overflow. It may very well result in the separation of some sewers, but we don't know that at this point in time. That study has just been begun and there will be a requirement for extensive public participation in preparation of that study.

ASSEMBLYMAN EDWARDS: Well, it seems to me that the problems of the City of Paterson and the kind of effluent that is being dumped into the Passaic River is causing a great deal more problem than the treatment facilities that presently exist along most of the major rivers, as least in North Jersey, as to damage being done to water quality, which is the bottom line that we're all looking for. I have noted a number of major sewer grants for collection systems being given in the Northern New Jersey area to the tune of eight, ten, twelve, fifteen million dollars, none of which seem to be of the magnitude of the water quality problems that are being created here in the City of Paterson or in some other similar circumstance. So, a ten or fifteen million dollar EPA, 75% grant, with or without State matching grant is not a significant sewer collection process and I guess what my question is, why are we not, when the problem is so great, emphasizing or putting some kind of greater priority on the upgrading of systems like Paterson's, with reference to water quality, if that's our bottom line? East Hanover, right down the way, they have a problem, but I don't that it is of the magnitude of the problems that we have here.

MR. MARKUS: Well, in terms of the problems, the collection systems and so forth, if you have gone out to municipalities where they have overflowing septic tanks and so forth, it is not a question of seeing an outfall, like you do, say, in Paterson. It is a question there of having all this just gradually winding up

in the streams and polluting the local streams and so forth. So, the impact, even though you are not seeing it in one concentrated point, is still there. But, we are interested in cities like Paterson and also Newark. The problem is to just go out and reconstruct everything, to go out and try to replace all the combined sewers and put in separate sewers is an enormous task and it would exceed the entire obligation that we have for the State of New Jersey, probably New York and the Caribbean Islands.

ASSEMBLYMAN EDWARDS: Well, I'm not an engineer, but I do know the problems of the old combined sewers that we've had here, but it would seem to me that a collection system of $15 million, which is the kind that you are refering to and that kind of a cost is not that prohibitive and, at least, it could minimize the impact. I don't know if the impact on our streams, and you would know better than I, but I don't know that the impact on our streams, from the septic problems that we're having in various municipalities exceed the impact that we're having by direct dumping into places like the Passaic River and it is a question of critical needs and I know the critical nees survey that the EPA mandates and I know the feasibilities and priorities are really established at your level, not at the State level, and I'm wondering if there is any way that we can get some kind of report back into the Senate and this Committee as to the kinds of critical needs that the EPA is using right now or factors to determine which ones are critical and shy Paterson doesn't fall into that category.

MR. MARKUS: Well, actually, in terms of developing the priority list for projects, that is actually a function of the State of New Jersey, with input from the EPA. I would like to point out again in reference to the study that the PVSC is undertaking, that they will be going out and taking looks at the impacts of Paterson and other areas on the River. The conclusion of that report may be, and I just can't say at this time, may be to go out and separate Paterson's sewers or may be to go out and separate a portion or possibly develop some sort of storage mechanism for portions of it. There are many options that will be analyzed and the study will be highlighted by public meetings and eventually by a public hearing throughout the process to keep everyone informed and to obtain everyone's input. It is not only going to be Paterson, but it is going to be throughout the entire service area of the PVSC and they will be doing a water quality model of the River to try to determine what the impacts so that you can actually see that when you get a rain of a certain magnitude, what is going to happen to the River.

ASSEMBLYMAN EDWARDS: How long do you think that will take?

MR. MARKUS: I don't know offhand.

ASSEMBLYMAN EDWARDS: Thank you.

SENATOR GRAVES: Assemblyman Girgenti?

ASSEMBLYMAN GIRGENTI: Just two problems. You talk about minimal impact on the River. You don't want to downgrade this. This is definately a health hazard.

MR. MARKUS: I said, from the visual standpoint. But, other than that, it is a severe impact.

ASSEMBLYMAN GIRGENTI: How much permanent damage is there, if any, on the River and how long do you feel it would take to clean up a situation like this?

MR. MARKUS: In terms of the full impact, I don't think anyone can come out and say that there is going to be a certain percentage increase in the long-range pollution or anything like that. For example, if we wind up with a heavy rain

at the end of the month, it may scour a lot of the deposits that were made at the bottom of the River.

ASSEMBLYMAN GIRGENTI: Would there be federal money available for the cleanup of this? Is that available now? What will happen as a result of this in this area?

MR. MARKUS: In terms of cleanup, what I understand to be the case right now, the problem would be more just deposition of solids on the bottom, as opposed to a tremendous accumulation on the banks of the River and so forth. I think, if we did have that type of deposits on the shoreline or something that really needed to be cleaned up, then we would be interested in talking to the PVSC to see what could be done to relieve that situation.

ASSEMBLYMAN GIRGENTI: And you will continue to monitor beyond the critical point to see what after effects or what damage is on the River?

MR. MARKUS: The State and the PVSC are actually doing the monitoring at this point in time. We do have a Corps of Engineers representative who is out there monitoring the construction and keeping an eye on things. He is representing the Agency.

SENATOR GRAVES: Is there any other governmental official who wishes to add anything into the input here? Are there any other mayors or governmental, county, State, federal official? All right, those that want to give us input that it wasn't done correctly?

E L L A F I L I P P O N E: My name is Ella Filippone and I am the Executive Administrator of the Passaic River Coalition and I have with me on my left Siegmar Silber, who is our attorney. The Passaic River Coalition is a watershed association concerned with the water resource management of the entire Passaic River basin. We have existed in this function as a non-profit corporation since 1971. We functioned as an ad hoc committee from 1969 to 1971. Our charter, which was approved by the State of New Jersey, permits us to deal with the environs of the Passaic River, water quality, water supply, flood control and land use. We have been a very active watershed association because we recognize that we have an obligation not only to the high headwaters, where we have our main office, but also to our municipalities, our major cities, Morristown, Paterson, Passaic and Newark. Our membership is composed of private citizens, organizations, municipalities, counties and cities. We are an apolitical organization and do not take part in any lobbying activities whatsoever.

SENATOR GRAVES: Even if we're wrong, you won't come out and fight us.

MS. FILIPPONE: We would do that, but we do not lobby for legislation. We are usually invited because of the expertise that we have exhibited in the past.

SENATOR GRAVES: What is your expertise based on?

MS. FILIPPONE: Our expertise is one of emphasis on studying the River.

SENATOR GRAVES: Living with the problem on a daily basis?

MS. FILIPPONE: Every day. I would say, Senator, that our phone has literally jangled off the hook in the past couple of days and the tragedies, the stories, the disturbance of the public is one that is unbelievable. These people that we are dealing with, as you well know, in this community use this River. The children swim in it, they fish in it.

SENATOR GRAVES: Do you have some advice for us?

MS. FILIPPONE: Yes, I have lots of advice and I have an answer to a question that you asked previously. You asked one of the previous officials whether

they are testing every day. We are testing every day. We do have a report, which I would like to refer to. I don't know if I have enough for everyone, but I can send anyone a copy if they so desire.

SENATOR GRAVES: I think, Mr. Arnold Schiffman, I think it would be good for you to interpret this. We're State officials. Would you come and interpret this for us?

MS. FILIPPONE: Well, we have someone who would like to give their interpretation also, Senator.

SENATOR GRAVES: He can join us.

MS. FILIPPONE: Fine. I would like to have everyone take a look at it.

SENATOR GRAVES: Be absolutely at ease and bring forth who you want to.

MS. FILIPPONE: We're jumping the gun on my testimony a little bit, but that's all right.

SENATOR GRAVES: Well, if it helps us interpret what you are giving us, that's good.

MS. FILIPPONE: I have no objection or no argument because the figures don't lie and they don't misrepresent anything.

SENATOR GRAVES: But, unless they bear some expertise, I don't. I'm going to learn.

MS. FILIPPONE: That's why I have them here. I would like to state one thing, Senator. From what I have heard from our experts, who are on our staff, and before I go to that, I would like to point out to you that I was Vice-Chairman for three years of the Newark East New Jersey Waste Water Quality Advisory Committee. So, my experience in water quality programs--

SENATOR GRAVES: We're not going to challenge your sincerity.

MS. FILIPPONE: Okay. Thank you. Anyway, I have with me Dr. Nancy Updegraff whose background is in natural resources geography and her expertise is also in interpreting the intent of the Clean Water Act. I also have William Nehls who has a Masters in marine biology from Fairleigh Dickinson University and has been heading up the team that has been doing the collection and the monitoring. One of the points that he made to me was that when we present this report, that I must emphasize to you, and he will follow through, is that it is too early to base the judgement as to the absolute impact. We only have, I believe, five or six days. Some of our field people are here today who have done today's testing and all I've been able to get from them is that it is worse today than it was yesterday.

MR. SEGRETO: Senator, may we of the Passaic Valley Sewer Commission have a copy of this?

SENATOR GRAVES: Sure.

MS. FILIPPONE: You may have to share. I didn't know we were going to have this many people here. The point that my staff has impressed on me, since I have to try to explain this to the press and to others, is that the ammonia level is extremely toxic and also that the D.O., the dissolved oxygen, is beginning to head in a downward direction, which is not good for the River. Before I try to get myself all untangled in technicalese, I'm going to pass the buck.

SENATOR GRAVES: Who did you want to do this?

MS. FILIPPONE: I would like to first have Mr. Nehls who has been working on this program, who has been doing the testing, and doing the collection take over the mike and he can explain this to you.

W I L L I A M N E H L S: Good afternoon, gentlemen.

SENATOR GRAVES: How are you?

MR. NEHLS: Fine. We have been testing every day. We have four sites. We have no base line data. We were not given the time to examine the River before the dumping started. So, we have no base line data.

SENATOR GRAVES: There is nothing to compare it to.

MR. NEHLS: Well, we can--

SENATOR GRAVES: You're giving what the results of your tests were today.

MR. NEHLS: Right. Well, for the past five days. What we did, we selected four sites. We started right above the dump zone, which is right below the falls. That was our first site. We can use that as a comparison, if you like. Our next three zones are located at Bridge St., Fifth St. and Fifth Ave., and down at Garfield. We did not select any sites below that area because there are too many factors involved, being in a tidal zone, the fact that backwashing in that area would stagnate the water and we wouldn't get exact readings all the time. We did all our testing in the field. We used a pack test kit, which allows you to do the testing right there on site and according to their data, it gives you a plus or minus 2% accuracy on all the testing. Certain tests should be done on site because if you take it back to the lab for testing, some of the metals, they tend to precipitate out of the water. The nitrite is more or less an instantaneous nutrient or pollutant in the water and it should be tested immediately. So, along those lines, this is how we did our testing. We've been testing each site for the past six days, every day, basically, at the same time and this is what we have compiled right here. We have conducted the samples at each site, which is taking two or three samples, taking the mean, more or less, to keep an accurate sampling so that we're not going over or under and keeping everything right. What we have here in front is a quality criteria for water. It is put out by the EPA and it is from 1976. Basically, what we have seen, as Mrs. Filippone said, the ammonia levels in several of our areas, at different periods, have been running along the toxic level. The D.O., at times, has been running low.

SENATOR GRAVES: Help us. What do you mean? Interpret, for a layman's consideration, what you found before the diversion into the River? How healthy was the River at that point and what is the condition beyond that point? You said you took samples at four places. One of them was prior to any emergence into the River of any effluents whatsoever. How was the River there?

MR. NEHLS: The River there basically falls within the State's limitations for all criteria. All the criteria that we're testing for is basically within the State's limits.

SENATOR GRAVES: Swimming, boating, fishing?

MR. NEHLS: Well, I wouldn't put boating there. Fishing, swimming, that's all right.

SENATOR GRAVES: Well, boating, because of the hazardous condition of the Falls.

MR. NEHLS: Well, because it is rather shallow there too.

SENATOR GRAVES: But, the water content, it would be subject to being available for swimming, boating and for fishing?

MR. NEHLS: Yes.

SENATOR GRAVES: So, the River, up to that point, is in an attractive way in that it could be used without fear.

MR. NEHLS: Well, it is used for fishing and swimming right now.

SENATOR GRAVES: Now, where you took below, where the effluent has been temporarily emerging into the River, what is the condition there?

MR. NEHLS: It deteriorates. The condition is--the dissolved oxygen at the second site drops down quite low as compared with the first site. The ammonia is much higher. Basically, all the parameters we test for are higher as you get further along the stream.

SENATOR GRAVES: Are they to a point of danger to the constituency or are they at a point beyond that?

MR. NEHLS: I would say they are at a point where we should be on guard. There are times when levels had exceeded the State's and the EPA's recommended limitations.

SENATOR GRAVES: Are you satisfied that the DEP--you heard their testimony, not testimony, but presentation to all of us--are you satisfied that he is monitoring it to a point of satisfaction to you so that he is on top of the situation?

MR. NEHLS: I feel that right now it should be monitored every day. My personal opinion is that it should be monitored every day. You have fluctuations between each day as we have seen on our data. Sometimes you have a high count and other times you have low count. It fluctuates every day with the River flow, with the amount of rainfall that has been coming in and you will have fluctuation and I feel that it should be monitored every day.

SENATOR GRAVES: Your findings are such that we should be on guard that there is no emergency that exists that would cause--

MR. NEHLS: I can't make that statement. At this point, I can't make the statement that there is no emergency. I don't have the data to back me up on any point.

SENATOR GRAVES: Well, you, to the best of our knowledge, have the most up to date readings of what the conditions are. You took readings today, you said.

MR. NEHLS: I didn't take them, my associates did.

SENATOR GRAVES: You're not sitting here telling the State of New Jersey that there is a state of emergency there, are you? You're sitting there telling us to be on our guard, at this particular point.

MR. NEHLS: All I'm saying right now is that I have this data here. It can be interpreted.

SENATOR GRAVES: Would you mind if Mr. Schiffman said something?

MR. NEHLS: No.

MR. SCHIFFMAN: Well, I think you should understand something. The status of the River now is not suitable for any type of contact. Now, what I would do with any other data beyond that, I don't know. It is not suitable now. That's why we posted the River.

SENATOR GRAVES: Because of the temporary conditions.

MR. SCHIFFMAN: The bacteria levels are considerably elevated. They were bad before. You are dealing with relative terms.

SENATOR GRAVES: Therefore, you posted the River.

MR. SCHIFFMAN: That's right. If the situation--the only analogy I can think of is a very gross one. It doesn't make too much difference if I shoot you in the head once or I shoot you in the head four times. The additional three bullets don't make any difference. It's gross, but it is the only illustration I can think of. The situation is bad now. The bacteria counts are quite elevated. They were

not that good before. They are considerably worse now and it is just not safe for any contact use. Now, there is nothing else that any other information would give you. If we do have low flows and the dissolved oxygen drops below the point it is now, things that are alive in the River now will die. You will have a fish kill of whatever fish are in the River now and all we can do is hope that that doesn't happen because that will just make it a worse mess. All I am saying is that these conditions exist to one degree or another with this discharge and without it. This just makes it worse and it is not safe to have any contact at all with that water. I know that I hear reports of people swimming and bathing in it. I try to keep them out. It is absolutely not safe. It is a health risk. If you want to swim in that water, you run the risk of eye infection, ear infection, nose infection.

SENATOR GRAVES: Where this temporary condition is.

MR. SCHIFFMAN: Well, you still have discharge into the River. I think you run those risks anyway. We don't consider the water here safe for swimming.

SENATOR GRAVES: At any point?

MR. SCHIFFMAN: Not in this area, where the bacteria levels are high. It is just much worse now. The risk is greater from a bacterialogical point of view. I have the values in front of me and they are high. They also are very high when you have an overflow from a storm condition, but you are much more likely to get swimming when it's not raining outside. The situation is just not good. I don't have any quarrel with the information that I looked at. As I said, you can argue about accuracy and that kind of thing, but that's not the issue here. I don't need detailed, analytical results when I have a raw sewage overflow into the River, frankly and monitoring doesn't offer any degree of protection above what we know now.

SENATOR GRAVES: There is nothing that has been added to this input that gives you any more concern than you had before.

MR. SCHIFFMAN: That's correct.

MR. SEGRETO: Mr. Chairman, I think the testimony of the witness so far has left the Committee and certainly some of us in the public with the impression that the testing that was done, that we had some tests that were done before Passaic Valley started the bypass and we have test results since then, so that there is some kind of comparison. In fact, the bypassing started on June 3 and the documents demonstrate that they didn't start testing until June 7. They had five periods of testing, June 7 to June 12, which means all of their testing is subsequent, by four days, to the commencement of the bypassing. So, we don't have any base line criteria which would show the condition of the River at the testing points before the bypassing started and since. What they have done, and I think it is important here for the Committee to realize this, they have taken measurements at the Great Falls, which is site number one, and then the next one is Bridge St., but all of the measurements that they have taken, all of the testing is June 7 and after. They're making an assumption that the measurement at the Great Falls on June 7 tells you what the condition of the River was down at Bridge St., East Fifth St., and Dundee Dam prior to the outfall. That just isn't true because between the Great Falls and their first testing point are a whole series of dye houses which are dumping into the River directly now.

SENATOR GRAVES: Do you have any further testimony?

MS. FILIPPONE: Quite a bit.

MR. SCHIFFMAN: Mr. Chairman, I do have background data and as I mentioned before, we see changes and they are within the range of normal, except for the bacteria levels, which is of the greater concern and the values, if you look at their standards of criteria, are unsuitable values, before and after. It is just a little worse, except for the bacteria, which is what you would expect.

MR. NEHLS: I did not mean to imply that I had base line data. I stated that we don't have any base line data. We started on the 7th.

MS. FILIPPONE: This brings out a very important point. I'm very glad you brought up that point. It is a point that someone else on this Committee raised before and that is disclosure of information by an authority. It has not been that easy to come by. We have not asked an agency which is called upon frequently by the Passaic Valley Sewer Commission or been getting monthly or even annual reports of their work or of the manner in which they are monitoring the River. There is an absolute lack of information from the authority to the public and when I appeared before this Commission on the 15th of May, I had all of two days notice, and from what I understand from Commissioner Ricci, it was because the EPA had directed them to hold a public hearing and for ten years now, I have been the public. I am always the public at PVSC meetings. There should a minimum of 29 other publics and many more that participate in the decision making process of this authority. In addition to that, in going along with the guidelines of the National Environmental Policy Act, and I'm quite sure that the experts and the professionals at the Commission are aware of it. When we get into a very serious problem such as a sewer main break and we make a decision such as to discharge into the River, we have two serious problems, and not just one. We have a problem of the sewer line break and the emergencies and all of the things that go on around it. In addition to that, we have the serious problem of what happens when we discharge this heavy load into an already overstressed system.

SENATOR GRAVES: Does anybody have a time problem here? Okay, we'll take a thirty minute break for lunch.

(At which time a thirty minute luncheon recess was taken)

SENATOR GRAVES: Okay, Mrs. Filippone, you may continue.

MS. FILIPPONE: An environmental assessment is supposed to include the input from a variety of different disciplines, especially when we deal with two problems, as I said, when we stopped. We have heard a great deal from the engineers, from Commissioner Ricci and from the consultants to the Authority. But, we have not heard any environmental assessment from public health officials, from biologists, from marine biologists, from water resource experts, from chemists, or from individuals who have expertise in the particular dynamics of the Passaic River, and there are many. There are many in the various universities that we have in this State. I'm not even going to enumerate them because I know that you are familiar with the people who have been doing a great deal of study on the Passaic River over the decades. In addition to that, we have not had an objective review from outside engineers who are also competent to evaluate the decision making process of the Passaic Valley Sewerage Commissioners. There are some very difficult gaps to fill here and one of them is that we had a very short period of time, a short period of time, evidently, because of the emergency situation, to have even EPA and DEP credably evaluate the emergency status. The issue must be raised that on the dates that we had to pursue

that the Department of Environmental Protection already gave approval on the 9th and 13th of May. The Environmental Protection Agency gave their approval on the 15th of May. That was the day of the public hearing. We were speaking, as the public, to a moot issue, already, because the approvals had been given. Therefore, it is very difficult to even project whether the appropriate people within these various departments were indeed aware of the severity of the impact on the Passaic River itself. As a matter of fact, after the problems occured, we attempted to determine whether our Commissioner and whether the responsible high officials in EPA were well aware of this and it took us three or four days to determine whether this was so. In addition to that, all of you have had, I'm sure, extensive experience with our federal and state agencies and are well aware as to how slowly the wheels frequently move. So, I must emphasize to this Committee the grave question as to whether this was really looked into properly and whether the true impact of the emergency was there and whether there was any evaluation of the impact on the River and the public health component. If there was, then it was the responsibility of the Authority to develop a process with the municipalities and the public to make them aware that we have an interim problem, that this River is going to be worse, as Mr. Schiffman said, than it is usually, and it their responsibility, not just by letter, but indeed by calling the municipalities together to explain thseverity to them and their health officers, to post the River and to go into a full-scale campaign to inform the public. This kind of responsibility should not be left to the Passaic River Coalition or any other private agency. It is the responsibility of the Authority. In addition to that, it was the Passaic River Coalition who called Mr. Schiffman on several instances and said, "Let's get this River posted," and we asked for bi-lingual signs. We wanted them in English and in Spanish and we said, if possible, with graphics, where you have a picture with a cross through it so the people would be well aware that there was to be no fishing, no swimming and no boating. In addition to that, this morning, we have heard very little, if anything, of the second break in the line and what this is going to mean to us. We have not seen the video-tapes. I know that in the past the PVSC has had video cameras that they have put through their interceptor lines and we do have, from I understand, pictures available that show the break and the severity of it. I think this should be evaluated by other engineers aside from Commissioner Ricci and the consultants of long standing to the Authority.

I think, perhaps, there are some other areas too that I would like to bring to your attention because at the hearing on May 15, I asked a very relevant question that you senators may have asked yourself and which Mr. Schiffman addressed. That was, if we have to live with this one today, this dumping into the River, can we have a contingency plan. On May 15, the response from Mr. Ricci and from the Commissioners was, no. We want a contingency plan on this River so that this kind of dumping process, this health hazard, which, at the present time, we are depending on the weather to keep us away from tragedy, that this never occurs again.

With regard to the aquatic life of the River, this is an indicator of how well this River is doing. The stretch from Great Falls to Dundee Dam has been improving. It is better than it was ten years ago and it should continue to improve. We are very concerned with the long-term impact on this stretch and its ability to flush itself out. In our commentary with our municipal members in the lower valley, we feel that this entire catastrophe should be turned around for the good of the public. We would like to see some studies undertaken that would give us

some better answers for the next time decisions have to be made. It would be very worthwhile to take this catastrophe and turn it into an opportunity to tell us how long it takes this river to really flush itself out. What are the long-term impacts? How do the metals settle to the bottom and how lasting will they be? I think it is time, and I was very pleased to hear Mr. Perrapato tell us that this is an environmental institution, and I would like the PVSC become more environmental. I would like to see them do some studies that demonstrate what kinds of methods we're dealing with, how the heavy metals react, how the river itself assimilates what is being done to it. Monitoring is not enough. If we get some good answers, maybe, and the Passaic County Planning Board asked me this question not too long ago. They said, "Can we ever get our river back?" Maybe through this catastrophe, we can get the river back, at least to a better grade than we ever anticipated.

I am very pleased to hear Mr. Schiffman agree that we are at a very tragic state, that he recognized that the various pollutants are high and that possibly we should look into the possibility of some kind of cleanup program, a restoration program, even if it is cosmetic because I think the people of the greater Paterson area and the 19 municipalities downstream deserve that kind of attention because we cannot equate the dumping at a zero cost. The dumping costs us. It costs us a great deal more than the money it might have cost to go into a bypass, if the Commission were ready and I think that begins to be the sum and total of the entire issue, at this point in time. We have to see that this never happens again and we have to also be cognizant that although the State and the Federal government and the Commission and our own institution are monitoring the River that this condition has only existed for a week. We still have about two more weeks to go and it is not going to be any better. So, it is more than an alert. We have to be cognizant. We have to keep after this at this point in time and I think, more than that, we have to alert the public and it cannot be left to just one small non-profit cørporation that is trying its very best to help the public.

Dr. Updegraff is here with me. She is an expert on the Clean Water Act and I have asked her to make a few comments to you because we feel that this action was in violation of the Clean Water Act.

N A N C Y U P D E G R A F F: I would first like to make a few comments on what the various studies that have been done by various agencies mean in real terms. First, fecal chlroform is an indicator tested for in polluted water to find out if disease causing agents are present and when you find such high fecal chloroform levels as the State has found in the Passaic River, we can be assured that we're dealing with many different kinds of disease that are transported from human waste to humans through the water system. If you think back, not too long in our past, some of these diseases were major killers of people and I hope that we don't have to go through those kind of events being transfered and I don't know if anybody is concerned enough to see people are going to clinics and see if these diseases are turning up.

Now, as far as the River's eco-system itself, the decreasing D.O., the increasing B.O.D. and C.O.D., and the increasing ammonia, they show that the River is in ill health. Now, if the dissolved oxygen levels are decreased enough that the river's organic load is being degraded by anaerobic bacteris rather than aerobic bacteria, then we're going to have a lot of other problems and they will be very serious problems and problems of materials depositing on the bottom of the

River that will be there for a very long time. They are going to come out in flood stage some time in the future when we hope our river will be much cleaner.

Now, as far as the elements of the Clean Water Act, the amendment that was passed in 1972 stated that the objective was to our rivers swimmable and fishable. That is the goal of all these activities that both the EPA and DEP have been engaged in and spent a lot of money in the Passaic and other basins throughout the country so that we may reach those goals. Whenever we have an incident like this, although we have many concerns healthwise, river-wise, we are taking a step backwards in a national policy. We are going further and further away from reaching our goal of having fishable and swimmable waters. Now, the reason we want that is that the people of this country have made a decision through their congressmen and senators that the rivers of this country are to be made pure because they are one of our most important assets. People want to use them for all kinds of recreational and nature activities and I think when these events come before us, it is all right for people to come forward and say, "Boy, this was the only thing we could do?" I'm afraid that if we don't do something now, that is going to be the next story and the next story, "That was the only thing we could do." I think when we take a step, such as the PVSC did in this case, and say, "This is the alternative and we chose it for these engineering reasons," I don't know whether they did it for all the reasons in the world because we have environmental and health reasons and I don't think either one of those reasons are being satisfied by their decision. Thank you.

SENATOR GRAVES: Well, suppose the Passaic River hadn't been a parallel align to this pipe. What would the Passaic River Sewerage Commission had done at that particular point? Would they have been able to bring in tanks, pump the effluents into the tanks and cart it away?

DR. UPDEGRAFF: Well, I think they would have had to take other alternatives because if they would have had to truck it to a nearby river rather than have it right on the river because it is easier to truck it to the next point in the interceptor, which was one of the recommendations that they did not discuss today.

SENATOR GRAVES: You remind me of that because not too long ago, I saw an article about the City of Passaic and how someone was backing into one of the manhole covers and dumping whatever it was, the waste materials from that business that they were serving as a carting agent until they were stopped by the Council and the Business Administrator at that point. So, whether it was feasible that tanks could have been brought in--in spite of your opposition, which certainly is on valid grounds and is certainly shared by Assemblyman Girgenti and myself, was there, in your professional estimate, a viable alternative? Now, we've heard from the PVSC, we've heard from their professional engineer. We don't challenge his credentials, they are outstanding. We may not agree with what he did, but we can't challenge his credentials. We then had testimony from the DEP Director and the Director testified. We heard from the federal government's licensed engineer on that particular category. So, we've heard from all these areas of government. Yet, we haven't heard anybody that could say that there was a viable way of doing this without having done what they did. Do you have a suggestion?

DR. UPDEGRAFF: I wish I did. I think, somewhere, there had to be another solution. If, as you say, the crack that had been discovered or the circumstances leading to the crack had been dealt with immediately, perhaps the threat of failure wouldn't have been a consideration. That seems to be the major consideration in

the act that was taken, not the River, not the people, but the fact that the sewer was going to fail. I think that's the consideration. We have to get to these problems sooner so that some technical problem doesn't make our decisions for us.

SENATOR GRAVES: Well, both the State and the Passaic Valley Sewerage Commission have a challenge outlined to them from this hearing. I would say, number one, they should both be aware that the public is really tuned in to its river and rights and does not want to slip backwards, with all the gains that we have made, and the State Division Director, who forthrightly said, "I ordered it," and it was no more words or no less. He said, "I would have ordered what they did to be done." We must assume that he is an officer of government that understands the repercussions of what he would have ordered to be done. But, he felt that there was no alternate move. We've heard from a federal official representing this particular area who concurred in the actions of the other two levels of government. So, we've heard from three areas of government today. We've heard from the federal government, we've heard from the State government and we've heard from an agency of some 27 or 29 municipalities who, by charter, is an autonomous board, but subject to appointment and the Constitution says, advice and consent of the Senate. So, therefore, there is an input on the State level of the very guardians of this particular autonomous authority and thereby comes the actions of the Senate in making an in-depth inquiry into whether the consituencies were guarded as best possible by the actions that were taken. What has happened is reprehensible. There is no better word for it. We can only be hopeful that the weather and nature, which has been extremely kind to us at this particular point--did you want to challenge that?

MR. SILBER: I would like to make a statement about viable alternatives after you have finished.

SENATOR GRAVES: I thought that I had asked for all that. Well, we'll reserve your right to say it.

Getting back onto the channel I was on, we have heard from these agencies of government that they took all the actions and reactions that they could take, under the circumstances. Your dedication and responsibleness is not going to be challenged and those that you are associated with. I would have thought that maybe there would have been an overflow crowd here today because if there ever has been an issue that has gained the front page of the three major newspapers that serve this area, I don't know what has equaled it. The Paterson paper has had it on the front page, I think, for something like 15 days going. The Bergen Record has more than played it up and so has the Herald News and the Newark Star-Ledger has touched it on at least two or three occasions. But, anyhow, it seems to be that there isn't anyone who reads a newspaper that doesn't know of what has happened and I really would have thought that there would have been more concern. Maybe they want to trust these agencies of government as best they can. Yes? Go ahead.

MEMBER OF AUDIENCE: Have you heard from all who are here?

SENATOR GRAVES: I asked if any other municipal officials--

MEMBER OF AUDIENCE: I'm not a municipal official. I'm a private citizen and I would like to speak, if I'm allowed to.

SENATOR GRAVES: You will be. So, therefore, we're concerned that the numbers didn't respond as what I might have anticipated. Two gentlemen have raised their hands that they want to speak and they will be given the right. They don't nearly multiply into the numbers of people that are affected and I don't even know whether these two gentlemen are affected by it. Some of us live by the river and

are more affected by it. So, our concern has to be translated into action. The Passaic Valley Sewerage Commission certainly must be alerted to the fact that not only is government interested in the responsiveness of what they are doing, but something more important than government itself, its citzenry, its constituency is of such magnitude of interest in this that they are not going to let go by and not going to let it happen again unless it is of such dire emergency that even they can't control it.

Senator Hirkala, who has left, has been working with me and we have been working on three municipalities, North Haledon, West Paterson and Totowa Boro in trying to help them solve their problems because their problems are polluting our river and we thought that we were making giant steps in that particular direction because North Haledon has agreed or has gotten the funding to hook into the Passaic Valley Sewerage Commission without touching any city street or any city sewer. So, that would put no capacity of problems on the City of Paterson on a daily basis as long as the had a holding tank that could hold them back on a rainy day. We thought that West Paterson and Totowa Boro, which are even of a greater magnitude of problem to the river, were well on their way to being solved. You understand that the State has thrown a roadblock in their particular way. We hope that roadblock can be straightened out. I don't think that most people even know that West Paterson has been dumping raw sewage into the Passaic River whenever their plant couldn't consume all the input. That is raw sewage. I don't think that most of us in this room know that in Totowa Boro that their treated sewage is going into our drinking water in the City of Paterson, that one of their outlets that goes into the Passaic River is captured before the Passaic Valley water plant treats it. So, we have concerns and we've been working to solve North Haledon's problem, to solve West Paterson's problem, to solve Totowa Boro's problems, not only for the people who live in those three communities, because we who live in Paterson and we who live on the Passaic River are going to be the ultimate gainer in solving their problems because it is going to mean a cleaner river and now all of a sudden we have been confronted with a crisis that is probably going to set our river cleanup back two or three months, unless nature plays a different trick on us and then it may last for a year. There is no doubt about that in my mind. I think--I don't know how often the Passaic Valley Sewerage Commission monitors what is going on in that River, but I would hope that their monitoring would be accelerated so that weekends and holidays and what have you are to the point so that every municipality affected and its health officer would be able to be notified on a telephone's moment's notice of any possible chance of any contagious, this being brought to the point that we have an alert or whatever kind that may be. Is that available to us? Is the Passaic Valley Sewerage Commission doing that already or could it be done?

MR. PERRAPATO: Yes. We're available. We can do that.

SENATOR GRAVES: When do you think that this job will be completed?

MR. RICCI: Mr. Chairman, the bypassing was scheduled to stop on Sunday, the 22nd of this month. We are on schedule.

SENATOR GRAVES: You are on schedule?

MR. RICCI: Including the repair of this additional crackage.

SENATOR GRAVES: So, you are on schedule and the 22nd is still the target date.

MR. RICCI: That's correct.

SENATOR GRAVES: And you are going to have daily inspections and daily trials of the river at as many key points as you feel is necessary.

MR. RICCI: Right now, we're running a monitoring program at eight stations as directed by the State of New Jersey. That is done two or three times a week for all of the parameters that we're taking, the dissolved oxygen and other parameters on a daily basis at this point.

SENATOR GRAVES: Wouldn't it be better, considering this potential emergency, that we monitor on a daily basis?

MR. RICCI: We could.

SENATOR GRAVES: But, will you?

MR. RICCI: We will.

SENATOR GRAVES: And more specifically, in the area that is now getting most of the effluents?

MR. RICCI: There are eight stations. Two of them are down in the Newark area and the remainder are from Garfield on up.

SENATOR GRAVES: And I gather that it is anybody's guess, nature being of the most paramount importance, as to how soon the river will flush itself.

MR. RICCI: Yes.

SENATOR GRAVES: Conditions can be that it will flush itself within a thirty day period. Conditions could also exist that could prolong that into months.

MR. RICCI: You have heard expressions of uncertainty today from a variety of people. I have to share that uncertainty as to how long it would take.

SENATOR GRAVES: Okay. But, we have gained something if you are going to monitor on a daily basis. We've gained something if you know that everything is going so that the 22nd will be the closedown period and you will continue to monitor until it no longer of necessity to monitor thereafter.

MR. RICCI: Senator, I should mention to you that as part of its regular function, we monitor the river at various stations weekly. It is a continuing program.

SENATOR GRAVES: And most importantly, before we go on to our next witnesses, will you, in conjunction with the State agencies that have to involve themselves in this. start immediately in setting up a plan to meet something like this in a head on fashion rather than until a crisis develops. Sure, we know that Arnold Schiffman said that this may happen again this afternoon. Maybe it won't happen again in our lifetime. But, I think we should take the attitude that it is going to happen next month and we should take everything and every reasonable precaution to set ourselves into a maximum ability of being able to reach and sufficiently settle the problem without turning it into this catastrophe. Is there a plan whereby we can rent tank trucks and pump the better part of this problem into a tank truck and avoid this problem?

MR. RICCI: First of all, I would like to correct a statement made by Mrs. Filippone regarding the May 15 meeting. At that meeting, one of the questions that she asked was, could we assure her that such an emergency would not occur again in the future and I couldn't, in all good conscience and professional judgement, assure her of any such thing. However, what I did appraise her of was the fact that the Commissioners had directed me, and I've since gotten an actual, formal designation from the commissioners, directed me to look at how we lay out an orderly program for the inspection of our system, where it can be inspected. As I mentioned to Mrs. Filippone at that time, there are sections of the sewer where it is almost impossible, without bypassing, because the sewer is full and we can't get someone

into the sewer. However, I said, and this was at that May 15 meeting, and I refer you to one of the appendices to my affidavit, which a summary of that meeting, particularly Mrs. Filippone's questions and her presentation to my answers. I indicated that this plan of inspection was to highlight any priority areas for capital improvement, correctional deficiencies and that the Commissioners would use that for laying out a five to eight year capital investment program. That has been directed. It was stated at that meeting. We did not say, no.

Furthermore, the Commissioners have directed me to retain the manufacturer, the services of the manufacturer of those engines that have been discussed on a number of occasions to see if, in fact, they are repairable. That sas directed as a resolution of the Commission. That will be done.

Beyond that, as I told Director Schiffman, we are ready, willing and anxious to work with the State in developing these contingency plans where we can do it. However, as I think he suggested this morning, there are unique situations that you will run into, depth of the sewer, size of the sewer, the actions that are available for correcting a particular situation. The best you can do, as an example, is to have the pumping equipment available and operable. You might, on a statewide basis, as an example, which is what Director Schiffman was refering to, have a stockpile of emergency piping which would be readily strung along the road and that type of thing. We are anxious to work with the State in developing just such a program and the commissioners have so directed me to do so.

SENATOR GRAVES: But, I think my response has to be that we can't settle for anything less. We can't sell off a day in our life and have the talent that is in this room and the dedication that is in this room, which will substitute for some of the talent. The Mayor of Hawthorne takes off an entire day because of his concern; the staff that more or less has to produce what we are asking for, the testimony here today; concerned dedicated groups; a couple other citizens here; other mayors that have responded like the Mayor of Paterson who opened up the testimony. You just don't get this many people together in a room unless they think there is something terribly, terribly wrong that they are ashamed of, and what we're sitting here today and listening to is something that we can't be proud of. It is something that we in government must say there must be some shame on government that it hasn't been able to provide a contingency plan for being able to solve a problem that was a potential disaster. Nobody from your area of government can come here and say that you didn't think this could happen because I think he would be suggesting that you don't really believe that we're able handle the situation. So, I have to believe that at sometime in your professional life, in your attachment with the PVSC, you must have believed that someday this was going to happen. Now, we find that it happened and we find that we took an alternative to solving this problem that certainly, at best, is not in the best interests of the people in this area and I don't think any stretch of the words can say it better than saying that what you have done is not in the best interests of those people. If we leave here today and it happens again and we have the gall to come back and listen to that testimony and have you say, "Well, we had no other alternate or viable means of doing it," then we're trying to say that all the technology that has been brought forth and all of the things that have been able to put us into other stratas of living haven't been able to adopt itself to a raw emergency like this. I have to believe, even though there has been nothing that has been put on the table by an opponent or proponent, friend or foe, that shows that there was a viable alternative. I haven't heard it, but

that doesn't mean that there isn't one and that doesn't mean because we haven't heard it, that it is not available and what we're saying to you is that you have the professionalism to find out. If you come back here two months from now and say, "There is no other way, Senators, to have solved this problem," then we either have the right to challenge you or believe you. The Passaic Valley Sewerage Commission has the best available. Now, it must give the best service available to its constituency and if it has to expand its staff to do that then it shouldn't hesitate and the seven commissioners have to understand how dead serious we are about this problem and how we feel about it, if we represent communities that border on the Passaic River. It just happens to be that you ran into a beehive because you ran into a committee that represented itself with a mayor and a senator who represent themselves in Harrison, New Jersey. A fire director is on this committee who is a senator and another municipal director from Paterson is a senator. So, you ran into a problem that we just weren't going to let walk by , even though another senatorial committee could have investigated it. I read in the paper that they decided not to. But, we represent putlic safety and we have a right to look into it and the Acting Governor of this state commissioned us to look into it. In fact, it was our belief that he was going to be able to be here if his schedule would have permitted that at all. So, I want you to know that the Senate President, the Acting Governor of this State knows that we're sitting here and has had the program explained to him and he has a big concern in it. There are two other assemblymen who sent a telegram, Assemblymen Hollenbeck and Visotcky, who challenge you pretty swiftly. Their telegram is not too kind to you. Our concern is that we not just walk away from it all, and say, "Well, by June 22, if nature is in our favor, by July 1, everything will be back to normal." We're not going to settle for that. We're going to monitor, as long as I'm Chairman of this Committee, I'm going to continue to monitor for the next year and a half, and I'm going to insist that you develop a program that will be able to cope with this situation. I want to be able to report to my full committee, and I hope that Assemblyman Girgenti will do the same in the Assembly, that our prime concern is that, maybe we're going to get by with this one and maybe we won't be so lucky the next time, but we sure as hell better have something on the table because there must be a way to solve a problem like this. What if this had been parallel to a resovoir? What if it had been parallel to something other than a river that gave itself a flow that might flush itself? These are all the things that are of tremendous concern.

MS. FILIPPONE: Senator, I would like to thank you very much. You have said better just now what I tried to say at the hearing on the 15th. I think Mr. Ricci did not remember everything because the record is not absolutely complete, but I don't want to try to upstage or downstage you. You have said it and your sentiments are mine completely. We support you 100%. We thank you very much for giving us time. We're very pleased with the directive you have given the Passaic Valley Sewerage Commission and we stand ready and willing to work with you and the Commission, as we have in the past ten years. I would like to tell you one thing. We have never fought with the Commissioners. We are here as a public advocate. We try to keep them on their toes.

SENATOR GRAVES: All right, let's give the other two people a chance. Would you come up sir? Would you identify yourself for the record, please?

T H O M A S W I L L I N G H A M: My name is Thomas Willingham. I am a private citizen and I live in the City of Paterson, near the Passaic River. I work for the Paterson Episcopal Mission, which is a private, church-related organization committed to the welfare of the City. I thank you all for holding this hearing and for giving me this opportunity to speak.

Some of the things that I want to say - and my comments will be brief - have been said, but I feel that it is important that a private citizen speak some of them. I share your concern that there are not more private citizens here in protest; however, I do not feel that the lack of their presence gives any of us any less responsibility for doing, in good conscience, what we feel needs to be done for the protection of the public.

In regard to the fact that there are not people here also, it seems to me that we, the public, have been led to believe that this was the only alternative.

SENATOR GRAVES: So have we, at this point.

MR. WILLINGHAM: Well, by the time that anything was made public, that I was aware of - and I read the papers, and I listen to the news, and I have my ear to the grapevine around here - I heard nothing, and knew of nothing, until it seemed to be too late to do anything. It seemed to me that we were given no decent chance for input prior to the beginning of the dumping, and this is one more example of people feeling powerless, feeling that it is a fait accompli, it is already done and so it is one more blow to the old City of Paterson.

I would just like to say a couple of things with regard to the presentation made this morning by the Passaic Valley Sewerage Commission. One is that it seems to me that an argument has been presented suggesting that when it rain, because of the nature of the sewerage system in the City of Paterson, a certain amount of sewage goes into the river anyway, and "what difference does it make if we go ahead and fump five hundred million gallons in, in a concentrated, 19-day, priod of time." In response to that, I would like to say: when does it rain for 19 days in a row around here? And, furthermore, this concentration is going in without being diluted, as it is under those circumstances. This argument seems to me to have been presented as somewhat of a justification for the action that has been taken, and it is a little bit to me like a doctor looking at a patient and saying, "this patient already has a broken leg, it won't matter if we break his other leg and his two arms."

The Passaic Valley Sewerage Commission has also, it seems to me, presented themselves as public servants with grave concern for the environment and for the protection of the Passaic River. It seems to me that the knowledge that is now available, that there were pumps in their possession which had been used previously for the purpose of a bypass and that these pumps had not been sufficiently maintained so as to make them operable in an emergency, leads me to question their commitment to the public savety and to the environmental protection.

I also wonder if the time schedule that they have presented to us, of 245 days, to do an alternate pumping bypass, does not include time for repairing those engines or purchasing other engines.

You have asked the question, Senator, repeatedly, "Was there any feasible alternative?" and the answer seem to have been, repeatedly, "No, there has not." It seems to me that viable alternatives were not researched. The

only alternatives that were researched - to whatever extent they were researched - were by the Passaic Valley Sewerage Commission, and they quite obviously have a vested interest. Why didn't the Department of Environmental Protection, the State, and the Federal Environmental Protection Agency take the opportunity, even though we were faced with an "emergency situation" to have some engineers investigate some alternatives themselves? I have only heard that both of these agencies accepted the recommendations presented to them by the engineers of the Passaic Valley Sewerage Commission. So, these are some questions that I would like to reaise.

SENATOR GRAVES: All right. Thank you. Assemblyman Girgenti, do you have any questions?

ASSEMBLYMAN GIRGENTI: I think the one thing we should ask at this point is-- Maybe Carmine or Rocco Ricci can explain the situation with the pumps that have been talked about as an alternate.

MR. PERRAPATO: Let's get one thing straight with the pumps - and you better get the record straight. The pumps were incidental. Time was of essence here. We have said this once; we have said it a thousand times. Whether there were twenty million pumps available, that wasn't the problem; the problem was the time line. Our experts told us that we had a time on it, that the sewer was going to collapse. So, whether the pumps were ready one day or two weeks later, wouldn't have made any difference. I think any further technical discussion of that our engineers will take up. But, very basically, we keep saying alternatives. I said that the state and the federal government didn't discuss alternatives. They discussed alternatives. There was a meeting at our place, discussing alternatives. And, if they had an alternative, they would have come up with the alternative. Their engineers have been around for along time. They know what you can do and what you can't do. And, the inference that Passaic Valley is not interested in the environment bothers me.

I live in a town that I was born in, that is on the river. I still live there, 60 years later. I understand the river, and I feel for it as strongly as anybody else does. And, if we had any alternative, you can rest assured that I would be the first one to say, "let's go for this alternative." We all feel for the river and we are all sincere about it. I understand the feelings. But, let's get down to the alternatives. What else could we have done? I don't mean just what someone dreams we could have done. I don't mean the truck situation, where we would need 3,500 trucks a day. I mean, let's be practical.

MR. WILLINGHAM: Sir, your argument, in your presentation, was that it would take 245 days to establish a bypass. Did that not include the time it would take to either repair engines, or get engines?

MR. PERRAPATO: Our chief engineer will answer that.

MR. RICCI: I would be very happy to give you a copy of my statement. If you had been listening this morning when I was making my statement, you would know I addressed that directly. The availablility, or the unavailability of the pumps, or whether we had to go out and buy new pumps had no bearing on the total time frame required to plan and construct the required alternate pumping station. It absolutely did not figure into that 245 day period of time. It was not the factor. If you look at a copy of my statement, you can see the day-by-day evaluation on one of these starts here. I would urge

you to take it to any qualified professional to evaluate the time frame and the steps that are involved, and ask him to give you his professional judgement as to whether it is too optimistic. It is, in my judgment.

MR. WILLINGHAM: I do feel that it is significant that pumps were purchased several years ago, and used, and that they are not now operable. Perhaps this is one of the things that can be considered for future reference, because if those pumps could have been used in this situation -- and I can only trust your argument that they could not at this point -- they were not available. So, perhaps that is something that can be looked at.

SENATOR GRAVES: The Committee has charged them to prepare themselves for the future.

ASSEMBLYMAN GIRGENTI: I would just like to add one thing. You did wrap it up very well, Senator, in terms of the way you spoke about it. Obviously, we have had a great crisis. What is happening to that river is a disgrace. It is abhorrent to look at it and to know what is possibly happening in terms of health. The fact is, we had a group of people who were obligated to react to crisis. We had the experts there at the Passaic Valley Sewerage Commission, and we had to take their decison, based on that situation and the time frame that they had to do it in, as to what the direction should be. I don't know what we can do to correct that today, in terms of the present difficulty. I don't think there is very much we can do because we are in the middle of the process.

The thing we have to do is, we have to find a way of dealing with this in the future, and I think this is what is going to come out of this hearing - to somehow find a better way to deal with this type of a situation. Never again should raw sewage be dumped into a river. The situation is terrible. I know the people from Passaic Valley agree with that. But, as the Senator said earlier, we had the technology. We had the individuals over there. I think that has to be our foremost obligation now, to make sure that this type of situation never happens again, in terms of dumping into the rivers. It is a health hazard. So, that really is the direction we have to head in for the future.

SENATOR GRAVES: I am going to briefly stop this for this reason: I am going to give everybody a chance to say a couple of words, but state staff has to get back to Trenton. Anybody who knows what it is like, on a Friday afternoon, to get on that Garden State Parkway after 3:30, or onto the Turnpike, to get back, knows what I am talking about. I have to be fair to them too. I will have a second hearing, if necessary, and I will hold that hearing in Trenton.

Would you state your name, sir?

H A R R Y D E C K E R: My name is Harry Decker. I am an engineer by profession. For the past two years I have worked with the New Jersey Department of Water Resources, working on a water resource management plan.

I have a few comments to make.

SENATOR GRAVES: Go ahead.

MR. DECKER: In fact, I brought some pictures with me that I took. I have already seen them, perhaps your staff would like to see them.

SENATOR GRAVES: This is the Passaic River recently?

MR. DECKER: Recently.

SENATOR GRAVES: How recent? When were these pictures taken?

MR. DECKER: These pictures were taken on Sunday. They were taken at the Elwood Park Marina. It was just a quick walk that I took along the banks of the river. I brought these pictures along in order to give my impression that there was, indeed, a large fish kill along the Passaic River. I got the impression from the testimony I heard today that there was a minimal change in the amount of oxygen in the water, and that really nothing much had happened.

I think the pictures will attest to the fact that we, indeed, did have a big fish kill.

SENATOR GRAVES: We don't have any proof. I doubt if these went through the sewer system.

MR. DECKER: No, these are pictures of fish that are dead and some other debris that is along the banks.

MR. DECKER: I have a question for the Sewerage Commission.

SENATOR GRAVES: Do it through the Chair. Proceed.

MR. DECKER: Wouldn't it have been possible to build a pipeline adjacent to the sewerage line and re-route the sewage to a point in the pipe where the pipe was intact?

SENATOR GRAVES: Do you think that would be possible?

MR. RICCI: Mr. Chairman, that is exactly the alternative we have been discussing at great length.

SENATOR GRAVES: The 245 day alternative?

MR. DECKER: Yes. Well, it comes to my mind that they built a large pipeline in Alaska, under very terrible conditions, and it did take them 244 days, using a much larger gauge pipe. I think there is really a commitment to do these sorts of things. I also think that if these hearings had been held before the action was taken, there might have been a little bit more of an incentive to build a by-pass. Having hearings in Newark, during the day when nobody can attend, and not getting the public input, and not inviting mayors and responsible officials, prohibits your getting a cross section of public opinion.

SENATOR GRAVES: Mayors were invited.

MR. RICCI: It was at 5:30, to make sure they could attend.

MR. DECKER: Did any mayors attend?

MR. RICCI: No, but they were invited.

SENATOR GRAVES: The only person that responded was the Councilperson of Paterson. He told us to go ahead.

MR. DECKER: I spoke to members of the Borad of Health in Paterson and they said they would never have approved this plan.

SENATOR GRAVES: It has been proven that they were notified.

MR. DECKER: Okay. Another comment was on a statement by the Environmental Agency. I head it this morning and I will quote his words: If this situation were to repeat itself, "they still do not know what exactly to do." Now, I don't think that is really-- Perhaps he said that off-the-cuff, but I wouldn't like that to go on the record as the attitude of the EPA.

SENATOR GRAVES: Our challenge and charge to them is that they better sure as heck come up with a way to do it.

MR. DECKER: As I see it, they are not just witnesses. By the Federal Pollution Control Act, they are responsible for maintaining the environment and giving input. They are not looking at what has happened. They should, really, have contingency plans. Of course, that point has been made today.

I might say too that if the pipe had broken, what would have happened? I think the sewage would have gone into the river, just as it did now.

ASSEMBLYMAN GIRGENTI: In reaction to what you said, and in fairness to Senator Graves, this Committee was called together as a result of the situation.

SENATOR GRAVES: He is talking about their meeting, not ours.

ASSEMBLYMAN GIRGENTI: All right. Because this hearing is a follow-up to a problem.

SENATOR GRAVES: He is not talking about our meeting.

ASSEMBLYMAN GIRGENTI: Right. The legislators do not set the policy.

SENATOR GRAVES: We showed initiative in having this meeting, nobody else did.

ASSEMBLYMAN GIRGENTI: Right. The Passaic Valley is an autonomous body, as you heard earlier, and there are 29 member municipalities who cover that jurisdiction, with the Commissioners. We are reacting to a sitution that has developed. We want to look into it and I think it is to the credit of Senator Graves that he called this meeting so that we can look into the problems.

MR. DECKER: Just quickly, the whole meaning of public meetings is to get public input on a particular emergency, and although these are instituted to serve the public, nothing is happening.

ASSEMBLYMAN GIRGENTI: But, the point is, people were notified, and we can't go out and grab them to get them out. If they were notified and they were given notice-- We have copies of letters that were sent out. We have copies of the letters sent to the municipal officials, notifying them. I know they posted the public hearing, and it was in the newspapers also.

SENATOR GRAVES: We weren't notified.

ASSEMBLYMAN GIRGENTI: Right. The legislators were not notified.

SENATOR GRAVES: I read in the newspaper when one councilman from Paterson attacked us for not having responded. We weren't notified. You don't notify Senators and Assemblymen.

ASSEMBLYMAN GIRGENTI: We weren't aware of it.

I am going to call on our next witness. You will have five minutes to testify. In fairness to the state people, I want to get them on the highway.

T I P P I E K R U G M A N: My name is Tippie Krugman, and I am the Executive Director of the Great Falls Development Corporation.

Of course, we all appalled, I will say that. But, my question is this: If to pollute is a necessity, to clean up is an absolute must, and I would like to know what the Commission intends to do about cleaning up the river, since it has been polluted? Just as industry is forced to clean up its act, I think the Commission has to clean up its act, and I would like to know what steps they are planning, and how they intend to do this. That is my first question.

SENATOR GRAVES: Do you have a plan, Mr. Ricci, to do something to bring the river back?

MR. RICCI: The postion of the Commission is that, first of all, we don't know what that means. We don't know what clean-up is actually going to be necessary. The Commission will react to whatever is necessary.

SENATOR GRAVES: I request that within 30 days you notify the Committee as to what you are going to do, based upon what you find.

MR. RICCI: Or, what the state finds. They would be the judge, I suspect.

MS. KRUGMAN: Thank you, Senator. The second question that I have is, since we have all known all along for many years, in the City of Paterson, the status of our sewers and that they are a joint system, and since I heard the Commissioner state that it was a very expensive procedure to correct this--and this is probably what has hampered correcting the sewers--I would like to know what they intend to do about that, whether we are going to allow the situation to continue to exist or whether they have any plans to apply for funding?

SENATOR GRAVES: Our sewers?

MS. KRUGMAN: Yes.

SENATOR GRAVES: I think that's our problem.

MS. KRUGMAN: Well, if they understand that we have old sewers like that, and we cannot correct that, then they have to set up some alternate plan to be ready when such a thing occurs again because the sewers are getting older, not younger.

SENATOR GRAVES: You see, they have nothing to do with the Paterson sewer system.

MS. KRUGMAN: But, they have to clean the water from the sewer system.

SENATOR GRAVES: Ours? No.

MS. KRUGMAN: Isn't it their responsibility or duty to take care of sewage and clean it so that it doesn't pollute the river?

MR. SEGRETO: Our responsibility, Senator, is to receive the sewage from the cities, transmit it to Newark, treat it and then discharge it. Everyone is responsible for their own collective system in the municipality and the municipality has the exclusive responsibility for storm water runoff. What is happening is that your storm water runoff is coming into our system because you have the combined sewers. That's the crux of the problem.

ASSEMBLYMAN GIRGENTI: Tippe, what you are saying is that as a result of this problem, they have the responsibility for correcting it.

MS. KRUGMAN: It's going to happen again is what I am saying. It is going to happen again and again and again until the City gets its sewers fixed. Therefore, they have a responsibility. They have now been put on notice that this situation does occur, will reoccur and they should be prepared. What if, two years down the road, this occurs again? Are we going to go through this again?

SENATOR GRAVES: With all the talent they have, this is their vocation. It is up to them to do it. If they don't do something--if I were the Attorney General of this State, I wouldn't hesitate to take some kind of action against them.

ASSEMBLYMAN GIRGENTI: Tippe, I just want to say, if there is nothing done in terms of the responsibility of cleaning up that river, I assure as a legislator, and I know the Senator will, we'll make sure that there is a bill passed that mandates that they do clean up that river.

MS. KRUGMAN: Great. Wonderful. That's terrific. My last point, and I'll try to be very brief, you know that the young children swim in that river, fish in that river and I'm sure that they do all along down the line, the other communities as well. We are very concerned about this and we feel that we must make a very, very extreme effort to keep them safe and unharmed. Thank you very much, Senator.

SENATOR GRAVES: Yes, sir? Would you identify yourself, please.

F R A N K S U D O L: Yes, sir. My name is Frank Sudol. I am a resident of the City of Clifton and I represent myself, as a citizen, and also as a member of Environmental Projections, which is a local environmental organization.

We've already prepared a rather extensive letter to Mr. Perrapato of the Passaic Valley Sewerage Commission, which I am sure they will respond to. I would like to submit a copy of the letter into the testimony, if I may.

The only point I would like to make, which I think is very important, is the area of very clearly posting the river. I know that Mrs. Filippone and several other people mentioned the need to bi-lingually post the river. Yesterday, I was down along the banks of the river by Dundee Dam. I noticed that a child had fished out a full can of beer, had given it to her mother or some other woman who was with the child. They were spanish speaking. The woman opened the can and I specifically tried to warn her not to drink from the container that she had just opened. I think it is extremely important that the signs be posted bi-lingually.

Also, when I was down along the river, I checked out the entire river from Clifton to the project area up in Paterson and I only noted three signs, one of which was down. I think since the Commissioners have inspectors along the river on a daily basis that the inspectors should be responsible for maintaining signs, putting them up as quickly as they are taken down and also making sure that the river is posted bi-lingually.

MR. SEGRETO: Senator, on the signs, the State has jurisdiction over them. Our only connection was that the State asked us, as a courtesy to them, if we would undertake the cost of printing the signs. We did. We printed the signs for the State, but the State has jurisdiction.

MR. SILBER: We put some of the signs also in the system. We'll be happy to assist the state in putting them up.

SENATOR GRAVES: If I were the state, I would ask them to cooperate and get the signs up.

MR. SCHIFFMAN: It has been on a cooperative basis to date.

MR. SUDOL: The second point is that they are only in English. They're not bi-lingual. They're not in Spanish and the woman who had almost taken a sip from the can was apparently spanish speaking and she was very difficult to talk to as far as telling her not to get involved with it.

SENATOR GRAVES: Thank you. The Director of Health for a number of the municipalities involved, Paterson, Hawthorne, North Haledon, Mr. Callahan.

MR. CALLAHAN: Thank you. We've heard from the EPA and the DEP and from the Passaic Valley Sewerage Commission and their responsibility is environmental control, which is, of course, very important. But, there is one other aspect that we haven't really heard from and that is, public health. That is the responsibility of the local health departments of the municipalities along the river. I know that I can speak for those municipalities that we represent. I also know that I can represent our municipalities across the river, Elmwood Park and Fairlawn. We view it as a clear and present danger to the public health. The Paterson Health Department, on behalf of the other municipalities, has continued to monitor reports of illness. Thank God, to this time, as of ten o'clock this morning, we had no evidence of any disease outbreak due to the contamination of the river. We recognize the apparent decision that had to be made to bypass the sewage into the river. We recognize that it was probably unavoidable. We would encourage the Senator and the Committee to make every effort to prevent this in the future and to directly involve the public

health officials in any discussion of what will be done the next time something like this happens. I think it is absolutely essential and for what it is worth, the Paterson Health Department is surveying the river additionally on a daily basis. We have not found evidence of significant fish kiil, nor of wildlife detriment. However, there is no question, but that the river is polluted. All you have to do is go down to Mulberry St., look at the river and the beautiful purple water that we have mixing in with the river. Actually, that's all I have to say. I thank you very much.

SENATOR GRAVES: I think it is important that you know that both Jerry English and JoAnne Finley were notified a minimum of four times. Jerry English's Department has been represented here. Is there anybody here from JoAnne Finley's Department, from the Department of Health? What is your capacity, sir?

R O B E R T I N G L I S: My name is Robert Inglis and I am Assistant Director of Consumer Health Services within the Department of Health. Our concern is secondary, you might say, because the responsibility for sewage discharge belongs to the DEP. What we are concerned about is the effect on public health, primarily in the field of drinking water, the recreational use of the river, the fish and shellfish that might come from the river. As I understand it, there is no public drinking water taken below the falls. Therefore, the threat to the public drinking water supply should be limited. As far as recreational use of the river, I don't believe the river has been recommended for swimming for years, even prior to this bypass. The third point has to do with recreational fishing. I believe there are still fish being taken from the river for recreational purposes, but no commercial fish or shellfish are taken from the river, due to the polluted nature of the river. The biggest danger in the recreational fishing area is the fact that there may be chemical contaminants in the river. These would not be removed by conventional sewage treatment anyway, but the risk would be there regardless of the bypass.

SENATOR GRAVES: Thank you. We want to portray to you our particular interest in this problem. Yes, sir?

S I E G M A R S I L B E R: My name is Siegmar Silber and I am a longtime resident of Paterson. Before becoming an attorney--and I am stepping out of my role as attorney for Great Falls Development Corporation and for the Passaic River Coalition because this is a statement as a private citizen--before becoming an attorney, I was an engineer for a period of twelve years. My field of engineering expertise is bio-chemical engineering. Now, this was an emergency that took 64 years to make. It was not an emergency that occured in the last six months or twleve months. It is something that was started the minute the main interceptor was built and it was only through a lack of not inventorying the facilities of the PVSC that we come down to date and see the disrepair of the line. If normal maintenance procedures, normal survey, periodic surveys of the mainterceptors were taken, the line would either, one, be maintained or, two, be replaced. I do not accept the emergency basis of this. The underlying structure is there, has been there for many years. From the moment it goes on line, it starts deteriorating and that is well known.

The item that I do not feel is going forward from here is that there does not seem to be any public divulgence of any survey of the entire main interceptor that PVSC, under its charter, Title 58, Chapter 14, has and I think that this should be the main thrust of a committee hearing such as this. The main thrust is that

the PVSC should go forward, should survey what they have, should make public the condition of the line so that, in the future, when maintenance is planned, when there is bypasses to be built, they are built in a timely fashion. Next time, we might not be as fortunate as this time. The break may be down just below Dundee Dam. Then, the amount of sewage and industrial waste released into the Passaic River might be in excess of 75 million gallons per day or 100 million gallons per day. That would certainly have a long-term effect on the river.

I would like to address myself to one other area. The amount of discharge into the river is a discharge which is a mixture of raw sewage, untreated, and industrial waste. During the past couple of days, I have had occasion to be at the outflow near the Hudson St. area and I have seen red dye and industrial wastes being poured into the river. I do believe that one alternative to the operation as we see it today is to let the raw sewage go into the river, but make an effort to truck out some of the industrial waste because the industrial waste aspect is an item which no one can really make an assessment of what the environmental impact is. Here, again, a very dramatic picture could be painted because we have examples in our recent period of time of the Elizabeth dumps, what happens up around Niagra Falls, New York, the Hooker Chemical problems, this sort of thing. The amount of damage done by not trucking out the industrial waste is much more severe and long-term than the dumping of the raw sewage. The raw sewage will, eventually, be flushed out.

SENATOR GRAVES: Mr. Perrapato, Mr. Silber is an an attorney and an engineer and he has suggested that during a crisis like this--

MR. SILBER: Frank, let me finish my statement first. I do not feel that in this instance, as we have spent millions of dollars cleaning up the Passaic River--I have seen this in both my capacities as an attorney. I've seen some recreational use come back to the river. I've seen public funds being used, Green Acres on the top of the falls. I've seen programs being conducted on better use of the river around the Great Falls area and then I have seen, on the other hand, within the historic district, the dumping of raw sewage and industrial waste. The two things are not consistent. It is very hard to create cultural tourism at a site of the dumping of raw sewage and industrial waste. I believe that the PVSC has failed in the public fiduciary duty which we have addressed earlier in the day and I believe that this committee can do a great job by making sure that the PVSC is accountable to the public. I thank you.

SENATOR GRAVES: He had an important point there. The raw sewage is one thing, but he said the chemicals coming from the dye houses could do extensively more damage. Could it be carted out of there instead of coming into the river?

MR. PERRAPATO: It would be almost impossible because the connection is made right in the Paterson sewer line. Number two, the industry could be closed down, but that is not the PVSC's responsibility. We couldn't do that. If the State wants to close them down, fine, but we don't have that kind of authority. Trucking it would be impossible.

SENATOR GRAVES: All right. The hearing is ended. Thank you everyone.

(At which time the hearing was concluded)

DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING
155 MARKET STREET
CITY HALL
PATERSON, NEW JERSEY 07505

PHONE: 881-3440

DANIEL F. MALATESTA P.E. & L.S.
CITY ENGINEER

September 25, 1979

Charles Manganaro
Consulting Engineers
79 Madison Avenue
N.Y.C. 10016

Att: Jim Cajeano

Re: Depression around manhole #86A

Dear Jim:

This is to inform you that upon inspecting manhole #86A which was constructed by Cruz Construction Co., under your Contract #459, there is at the present time a dangerous depression around this newly constructed manhole.

Please arrange to have the area properly investigated and then take the necessary corrective action as quickly as possible to avoid any mishap that might occur.

Kindly advise as to the course of action you intend to take in this matter. Your immediate attention to this matter is required.

Very truly yours,

Daniel F. Malatesta

Daniel F. Malatesta
City Engineer

DFM:r

1X

PASSAIC RIVER COALITION

WATER QUALITY MONITORING PROGRAM

Parameters: Turbidity
Temperature
pH (Hydrogen Ion Conc.)
Ammonia
Nitrate
Nitrite
Phosphate
Iron
D.O. (Dissolved Oxygen)

Equipment: Hach Field Water Testing Kit
Bauch and Lomb Spec 20

Sites:
1. Great Falls - prior to any outfalls to ascertain "predumping" levels.
2. Bridge Street
3. E. 5th Street and 5th Avenue
4. Dundee Dam, Garfield

PASSAIC RIVER COALITION
AN URBAN WATERSHED ASSN.
246 MADISONVILLE ROAD
BASKING RIDGE, N. J. 07920

William Nehls
J.S. Wynant
Julia Bishop

2X

Adverse Health Effects and Associated Hazardous Contaminant Levels

Source: Quality Criteria for Water
Environmental Protection Agency, Washington D.C.
July 1976

pH 5-9 Domestic Water Supply
6.5-9.0 Freshwater Aquatic Life

Dissolved Oxygen 5.0 mg/liter -minimum conc. to maintain good fish populations

Nitrate 10 mg/liter for Domestic Water Supply

Nitrite 1 mg/l - polluted and probably bacteriologically unaccpetable
- unacceptable for drinking by children

Phosphate .025 mg/liter stimulates excessive growths of algae imparting undesirable tastes and odors to water, interefere with water treatment, become aesthetically unpleasant and alter the chemistry of the water supply-- eutrification

Phosphorous .0001 mg/liter maximum for marine or estuarine waters

Iron 0.3 mg/liter for domestic water supply (health)
1.0 mg/liter for freshwater aquatic life

Destroy bottom dwelling invertebrates, plants, or incubating fish eggs. Toxic to carp at 0.9 mg/liter

Ammonia .02 mg/liter for freshwater aquatic life
levels of .2-2.0 mg/l are tocic to a variety of fish species.

Turbidity Optimal turbidity 25 JTU's
Fish yields drop 42% in the range of 25-100 JTU's

PASSAIC RIVER COALITION
AN URBAN WATERSHED ASSN.
246 MADISONVILLE ROAD
BASKING RIDGE, N. J. 07920

3X

TEMPERATURE

(degrees Centigrade)

DATE	SITE 1	2	3	4
June 7	21.1	21.2	23.8	22.2
June 8	24.4	24.4	22.2	22.8
June 9	16.7	17.8	17.8	16.7
June 10	14.4	15.6	23.3	21.1
June 11	17.8	15.6	24.4	17.8
June 12	21.7	19.4	16.1	19.4
June 13				
June 14				
June 15				
June 16				
June 17				
June 18				
June 19				
June 20				
June 21				
June 22				

PASSAIC RIVER COALITION
AN URBAN WATERSHED ASSN.
246 MADISONVILLE ROAD
BASKING RIDGE, N. J. 07920

pH (Hydrogen ion concentration)

DATE	SITE	1	2	3	4
June 7		7.0	7.3	7.2	6.5
June 8		7.1	6.6	6.8	7.0
June 9		7.1	7.3	7.3	7.2
June 10		7.0	7.2	8.5	6.8
June 11		7.4	7.1	6.5	6.4
June 12		7.4	8.0	7.4	7.4
June 13					
June 14					
June 15					
June 16					
June 17					
June 18					
June 19					
June 20					
June 21					
June 22					

PASSAIC RIVER COALITION
AN URBAN WATERSHED ASSN.
246 MADISONVILLE ROAD
BASKING RIDGE, N. J. 07920

D.O. (DISSOLVED OXYGEN)

ppm

DATE	SITE	1	2	3	4
June 7		-	-	-	-
June 8		7.28	3.04	6.48	4.50
June 9		8.88	2.8	6.16	4.64
June 10		8.0	4.08	4.96	4.48
June 11		8.24	3.12	6.00	2.88
June 12		8.32	3.44	-	3.28
June 13					
June 14					
June 15					
June 16					
June 17					
June 18					
JUne 19					
June 20					
June 21					
June 22					

PASSAIC RIVER COALITION
AN URBAN WATERSHED ASSN.
246 MADISONVILLE ROAD
BASKING RIDGE, N. J. 07920

6X

NITRATE

(mg/liter)

DATE	SITE 1	2	3	4
June 7	2.0	2.0	3.5	2.5
June 8	7.0	7.5	4.1	3.3
June 9	3.3	3.0	2.0	2.8
June 10	2.5	2.8	8.5	2.8
June 11	3.0	2.8	2.5	3.2
June 12	3.0	3.0	3.0	3.0
June 13				
June 14				
June 15				
JUne 16				
JUne 17				
June 18				
June 19				
June 20				
June 21				
June 22				

PASSAIC RIVER COALITION
AN URBAN WATERSHED ASSN.
246 MADISONVILLE ROAD 7X
BASKING RIDGE, N. J. 07920

NITRITE

(mg/liter)

DATE	SITE 1	2	3	4
June 7	0.05	-	0.073	0.4
June 8	0.17	0.5	0.095	0.135
June 9	0.126	0.048	0.2	0.09
June 10	0.038	0.195	0.17	0.055
June 11	0.035	0.195	0.17	0.055
June 12	0.045	0.09	0.40	0.054
June 13				
June 14				
June 15				
June 16				
June 17				
June 18				
June 19				
June 20				
June 21				
June 22				

PASSAIC RIVER COALITION
AN URBAN WATERSHED ASSN.
246 MADISONVILLE ROAD
BASKING RIDGE, N. J. 07920

PHOSPHATE (ORTHO)

(mg/liter)

DATE	SITE 1	2	3	4
June 7	1.05*	5.0	2.1	1.3
June 8	1.0	1.7	4.1	2.5
June 9	0.5	5.3	2.0	1.6
June 10	1.9	3.6	5.0	11.9
June 11	2.1	4.0	2.5	2.0
June 12	2.5	3.8	2.9	2.0
June 13				
June 14				
June 15				
June 16				
June 17				
June 18				
June 19				
June 20				
June 21				
June 22				

PASSAIC RIVER COALITION
AN URBAN WATERSHED ASSN.
246 MADISONVILLE ROAD
BASKING RIDGE, N. J. 07920

* All numbers represent experimental mean values of several trials

ELEMENTAL PHOSPHATE

(mg/liter)

DATE	SITE 1	2	3	4
June 7	0.35	1.66	0.70	0.43
June 8	0.33	0.56	1.36	0.70
June 9	0.16	1.70	0.66	0.53
June 10	0.63	1.20	1.60	3.90
June 11	0.70	1.33	0.83	0.66
June 12	0.83	1.20	9.60	0.66

PASSAIC RIVER COALITION
AN URBAN WATERSHED ASSN.
246 MADISONVILLE ROAD
BASKING RIDGE, N. J. 07920

IRON

(mg/liter)

DATE	SITE 1	2	3	4
June 7	.29*	.61	.78	.46
June 8	.14	.39	1.18	.41
June 9	.13	.51	.55	.70
June 10	.57	.51	.01	.41
June 11	.28	.37	.37	.58
June 12	.75	.15	.40	.52
June 13				
June 14				
June 15				
June 16				
June 17				
June 18				
June 19				
June 20				
June 21				
June 22				

PASSAIC RIVER COALITION
AN URBAN WATERSHED ASSN.
246 MADISONVILLE ROAD
BASKING RIDGE, N. J. 07920

*All numbers represent experimental mean values of several trials

AMMONIA

(mg/liter)

DATE	SITE	1	2	3	4
June 7		1.0*	4.2	1.8	0.9
June 8		1.5	2.3	3.2	2.1
June 9		0.7	5.3	2.0	1.7
June 10		1.3	6.4	1.6	1.4
June 11		2.2	8.4	1.3	1.2
June 12		1.2	9+#	2.8	2.4
June 13					
June 14					
June 15					
June 16					
June 17					
June 18					
June 19					
June 20					
June 21					
June 22					

PASSAIC RIVER COALITION
AN URBAN WATERSHED ASSN.
246 MADISONVILLE ROAD
BASKING RIDGE, N. J. 07920

12X

* All numbers represent experimental mean values of several trials

\# Quantity beyond measuring capability of field equipment

TURBIDITY

JTU: Jackson Turbidity Units

DATE	SITE	1	2	3	4
June 7		16	233	40.7	45.3
June 8		20	86	27.3	22
June 9		26	168	36	44.3
June 10		28	112	101	36
June 11		34	191	113	43.7
June 12					
June 13					
June 14					
June 15					
June 16					
June 17					
June 18					
June 19					
June 20					
June 21					
June 22					

PASSAIC RIVER COALITION
AN URBAN WATERSHED ASSN.
246 MADISONVILLE ROAD
BASKING RIDGE, N. J. 07920

environmental projections

CLIFTON, NEW JERSEY

Frank Sudol
268 Getty Avenue
Tel: 772-8698

June 9, 1980

Carmine Perapatto, Executive Director
Passaic Valley Sewerage Commissioners
600 Wilson Avenue
Newark, New Jersey

Dear Mr. Perapatto:

We are angered by recent news that the Passaic Valley Sewerage Commission (PVSC) has begun to divert the flow of untreated sewage from the PVSC trunk line in Paterson into the waters of the Passaic. It is our understanding that twenty-nine million gallons per day of this untreated effluent is involved in the diversion which began on June 3.

A notice of public hearing, via newspaper advertisement, was provided by PVSC on May 6 and the hearing was held on May 6 and the hearing was held on May 15. We contend that such "game playing" of providing a nine day notice on such a major action, involving federal funding, is most inappropriate and irresponsible (see F.R. Vol. 44, #34- 2/16/79). We have been told that only one individual attended the public hearing, because of the insufficient allowance of time for individuals to be brought into the public participation process. It is our understanding that Mrs. Ella Filippone of the Passaic River Coalition, was the only individual to be hand-delivered a copy of the notice and the environmental assesment prior to the hearing. Further, we have been informed that municipalities as well as individuals were not provided information on the magnitude (29 MGD) of the intended diversion nor with copies of the environmental assesment (more on this latter). Such action by a public body (PVSC) in this day and age, is reprehensible.

We request the following information:

1. The date on which PVSC first realized that repair work was needed on the damaged trunk line?

2. Why weren't warning (no swimming- polluted water) signs posted by PVSC along swimming access points (i.e. Dundee Dam area) as well as popular fishing spots to warn people of the dangerous water quality?

3. Didn't the Killam infiltration-inflow study reveal the problem over a year ago?

4. What was the precise extent of damage to the line? Which portion of the line? Was only the top of the line damaged and in need of repair?

5. Was the alternative of open ditch excavation evaluated in order to consider the possibility of exposing the line to make repairs by either recapping the damaged top of the line or if necessary inserting a new section of pipe into the damaged area without the need to divert the flow into the river?

6. Is it true that EPA would pay for 75% of the cost?

7. Why couldn't the flow be diverted around the damaged section of pipe? What would have been the cost? Doesn't PVSC have 4 large capacity pumps exactly for this purpose, which it purchased several years ago at a cost of $1.5 million?

8. Why weren't individuals on the PVSC mailing list (to receive the Annual Report) mailed notices of the public hearing, and copies of the environmental assesment?

9. Why weren't member municipalities mailed copies of the environmental assesment prior to the hearing? After?

10. On a project of such magnitude, why wasn't a comprehensive environmental impact statement prepared?

11. Were the public participation regulations of the U.S. EPAfollowed in that EPA will provide partial funding?

12. We request photo-copies of the letters of approval to proceed granted by the U.S. EPA and the N.J. DEP.

Though the alternatives may have been more costly, we contend that severe damage to the river and possibly individuals who come into contact with its waters, may result. Hence, on behalf of the public, we hold PVSC jointly, severally and strictly liable for all damages which may result. Our environment including the quality of our rivers is precious and must be protected from the ravages of individuals and institutions that place the buck before our environment.

In addition to the above, we contend that PVSC may have acted illegally in diverting the flow of sewage into the Passaic. As such, by copy of this letter, we are requesting a full criminal investigation be undertaken by the Offices of the U.S. Attorney and the State Attorney General.

Specifically, we contend that there may have been violations of the following acts and regulations:

1. The Federal Refuse Act of 1899 (U.S.)

2. Federal Register, Volume 44, No. 34- Friday, February 16, 1979 (U.S.)

3. NJSA 23:5-2 (N.J.)

4. Chapter 173 of the Public Laws of 1971 (N.J.)

We ask that each of the above noted questions be responded to <u>individually</u> by PVSC. Attachment to point out the position of PVSC would be appreciated,

though we seek specific responses to each question raised herein.

Again, we call upon the Office of the U.S. Attorney and the State Attorney General to look into the allegations that PVSC may have violated the referenced laws and regualtions.

Though we are not lawyers, and at this time represented by counsel, we raise these points and ask these questions in order to decide if counsel is necessary. If need be, Writs of Mandamus or other appropriate action may be necessary in order to resolve these issues to reveal to the public what appears to be a poorly conceived and irresponsible plan which has resulted in a serious crime being perpetrated against the Passaic River.

Very truly yours,

Frank J. Sudol

cc. Charles Warren, Regional Administrator, EPA
Jerry English, Commissioner, N.J. DEP
Robert Del Tufo, U.S. Attorney
John Degnan, N.J. Attorney General

