BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

DAVID MULVAIN,	)	
	)	
Complainant,	)	
	)	
vs.	)	No. PCB 1998-114
	)	
VILLAGE OF DURAND,	)	
	)	
Respondent.	)	

The following is the transcript of a hearing held in the above-entitled matter, taken stenographically by MICHELE J. LOSURDO, CSR, a Notary Public within and for the County of DuPage, State of Illinois, before JOHN KNITTLE, Hearing Officer, at 519 Black Hawk Drive, South Beloit, Illinois, on the 10th day of August, 1999, A.D., commencing at 9:00 a.m.

PRESENT:

HEARING TAKEN BEFORE:

ILLINOIS POLLUTION CONTROL BOARD
BY: MR. JOHN KNITTLE
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Suite 11-500
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BY: MR. WARREN H. LARSON
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Appeared on behalf of Complainant;

BY: MR. HERBERT I. GREENE
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Appeared on behalf of Respondent.

I N D E X

E X H I B I T S

MARKED FOR IDENTIFICATION

HEARING OFFICER KNITTLE: My name is John Knittle. I'm a hearing officer with the Illinois Pollution Control Board. I'm also the assigned hearing officer for this matter which is David Mulvain versus the Village of Durand, PCB 1998-114.

I just want to note for the record that I'm not sure if everybody here is familiar with the board's decision making provisions, but I will not be deciding the entirety of this case. I will rule on evidentiary matters and any objections that arise at the hearing.

My main job is to ensure an orderly hearing, to ensure an ordinarily record that the board has so they can make a good decision in this matter. This hearing will be conducted in accordance with sections 103.202 and 103.201, you can reverse those, which lays out the pertinent order for enforcement hearings.

At this point I'd like to have the parties introduce themselves starting with Mr. Larson.

MR. LARSON: My name is Warren Larson. I represent David Mulvain the complainant in this matter. Seated with me at the table is Mr. Mulvain.

HEARING OFFICER KNITTLE: Mr. Greene.

MR. GREENE: I'm Herbert Green. I represent the Village of Durand and seated to my right is Jim Thomas the village mayor.

HEARING OFFICER KNITTLE: I also note that there's a number of members of the public as we like to call them here today. Is there anybody here not affiliated with one of the parties, or are you all potential witnesses?

MR. GREENE: A combination.

HEARING OFFICER KNITTLE: Pardon?

MR. GREENE: A combination.

HEARING OFFICER KNITTLE: Do we have anybody here that's not going to be called as a witness?

MR. GREENE: Yes.

HEARING OFFICER KNITTLE: I know you're affiliated with the respondent, correct? And seated next to you?

MRS. GREENE: I'm the wife of Attorney Greene.

HEARING OFFICER KNITTLE: That's all I'm looking for. If there's anybody here not affiliated with one of parties and not going to be called as a witness, you're going to have the opportunity if you

so choose to offer public comment later on in the proceedings. You will be subject to being sworn in and also subject to cross-examination from each of the parties and you will be given an opportunity to speak later.

If, in fact, you need to go or you don't think you'll be able to stay for the duration of the hearing, let me know, just raise your hand or get my attention somehow, and we'll make sure you can give your public comment early because we have the public comment period at the end of the hearing. It's important for the board to have your public comments and we welcome them.

That being said I want to move onto preliminary matters. I think we've resolved the only outstanding motion, but if there are any motions that you want to be made preliminary to hearing, we can make them.

MR. LARSON: No motions.

MR. GREENE: I don't have any motions. I just want a point of I guess clarification to confirm that what we're to accomplish today is to have a hearing to determine if there were any violations that continued after the sewer repairs that were

completed in 1997 and to determine the appropriate remedy for the violations and I'm specifically referring to the board's decision of --

HEARING OFFICER KNITTLE: 3/18/99.

MR. GREENE: Correct.

HEARING OFFICER KNITTLE: Mr. Larson, do you have any comment to that?

MR. LARSON: No. That's my understanding, Your Honor.

HEARING OFFICER KNITTLE: Also, as much as I like to be Your Honor, you can just call me Mr. Knittle or Mr. Hearing Officer. I haven't quite elevated myself to the position of Your Honor at this point in my career.

MR. LARSON: It's a reflex.

HEARING OFFICER KNITTLE: I understand. I do the same thing myself when I'm before somebody. So let's -- I see no preliminary matters here. Let's move onto opening statements if you have one, Mr. Larson.

MR. LARSON: Mr. Hearing Officer, the complainant David Mulvain brought this action before your attention of chronic problems which exist in the drainage sewage treatment plant in Durand, Illinois.

These problems cause a negative effect on the health and welfare of the Durand community, and it must and needs to be remedied before the community expands in places in even greater load on the troubled plant. The problems Mr. Mulvain complained of are sewer backup into residences in the village and excess inflow and infiltration into the plant itself. There are related problems as the evidence will show excess inflow and infiltration is a direct cause of sewer backup.

The result of these backups is dangerous conditions threatening the health of the affected residents. Repairs have been made in the Durand system since 1997, but severe problems still exist. We will go into the condition of the system in some detail to demonstrate the nature of the problem as the effect of the repairs and the conditions which remain.

The testimony will show that televised surveys of the sewers done in Durand in 1995 showed more than 50 series breaks or collapses. Many of those have been repaired; however, despite these repairs, the testimony will show that volumes of effluent passing through the system have increased

rather than decreased in the period after the repairs.

Mike Sweet, the supervisor of the Durand system will be called to testify concerning the configuration of the system, its condition prior to the repairs and its condition today. Erwin Toerber, a civil engineer who's worked in the Durand system will be called to testify concerning the capacity of the plant and the effect of excess inflow and effluent on the treatment process.

David Mulvain, the complainant and trustee of the village of Durand with wide knowledge of the system will testify concerning sewer backups and his own direct personal knowledge and experience of the violations of the Environmental Protection Act at this plant and in the system.

The testimony will show a system in deep trouble. While definite improvements have been made in the system, pertinent levels of discharge are routinely violated. And there is at times the discharge of untreated effluent to Otter Creek which is the receiving stream for the treatment center.

In prior motions in this case, the Pollution Control Board has found violations of the

act by the village of Durand. It remanded this action for hearing on the present conditions and the recommendations for remedies.

While the questions before the board today show an immediate need for action -- while the question of remedies is best left for final argument, the questions before the board today show an immediate need for action to, one, address the immediate problems of the system rather than planning for its expansion, and two, reduce the projected increase in sanitary influent potential for continuation of present problems until the system can handle the load it presently confronts.

The testimony you will hear today and tomorrow go directly to these points and I think lay out with some clarity and in great detail points which will -- evidence which will substantiate these points and make a decision in this case clear for the complainant in this matter.

HEARING OFFICER KNITTLE: Thank you, sir. Mr. Greene, do you have anything?

MR. GREENE: Yes, Judge -- Your Honor -- Mr. Knittle.

HEARING OFFICER KNITTLE: Thank you.

MR. GREENE: I have the same problem. It's a habit. I think that what the evidence is going to show is that there was substantial repairs that were completed in approximately November 4th of 1997 and that immediately after that or even overlapping that additional repairs, substantial repairs costing over $500,000 were started and have just been completed.

And I think that the evidence is going to show that there have been no backups since the completion of the repairs, in fact, since the first repairs were completed in 1997 that were the cause of or because of the sanitary sewer system.

And I think that the evidence is going to show that although there are some technical violations with inflow and that it's going to show that it is normally operating sanitary sewer system that is as in compliant as any sanitary sewer system with a lagoon system can possibly be.

HEARING OFFICER KNITTLE: Thank you, sir. Unless there's anything further, we're going to move to the case in chief. Would you like to call your first witness?

MR. LARSON: Mr. Mike Sweet.

HEARING OFFICER KNITTLE: Mr. Sweet, feel

free to come up here and have a seat. You can pull that all the way back. If you need the table, you're welcome to the table as well. I'm going to ask that you be sworn in.

Could you swear him in, please?

MICHAEL SWEET,

having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

by Mr. Larson

Q. Would you state your name and address, please?

A. Michael J. Sweet, 14990 Baker Road, Durand, Illinois.

Q. What's your place of employment?

A. Village of Durand.

Q. And what is your position with the village of Durand?

A. Superintendent of public works.

Q. And how long have you held that position?

A. Three years.

Q. What was your position prior to that?

A. Assistant superintendent of public works.

Q. During the period of time that you've been

the superintendent of public works or the assistant superintendent of public works, have you been familiar with the condition in operation of the sewage treatment plant and collection system in Durand, Illinois?

A. Yes.

Q. What's your educational background?

A. I have 12 years of school and then I have some courses in wastewater and water treatment.

Q. These courses in wastewater and water treatment, would they be in the form of continuing education seminars to be taken while you're employed?

A. Yes.

Q. And how many of those roughly have you taken?

A. Four.

Q. Would they be in the last three years or prior to that?

A. Prior to that.

Q. In the last three years, have you had any additional continuing education of any kind with regard to matters relating to your job at Durand?

A. No.

Q. Now, are you familiar with the treatment

and collection systems of the Durand sewer system?

A. Yes.

Q. Now, when I say collections system, what I mean is the laterals, mains and feeders that make up the pipes that collect sewer inflow and influent. Do you know roughly how many linear miles there are of the collection system in the Durand system?

A. No.

Q. Now, in the treatment system is the actual sewage treatment itself, the sewage treatment plant itself. Are you familiar with the configuration and design of the sewage treatment plant?

A. Yes.

Q. And do you work at the plant as part of your job?

A. Yes.

Q. How often are you there?

A. At the plant itself?

Q. Yes.

A. I guess I'm in and out eight hours a day. I work at the plant eight hours a day. I guess that's --

Q. Do you have substantial other responsibilities in your job as superintendent of

public works at Durand?

A. Yes, I do.

Q. And of the entire time that you spend in its employ of the village of Durand, how much time roughly do you spend involved in matters regarding the collection and treatment of sewage?

A. It depends.

Q. Would it be half, more or less?

A. Less.

Q. A quarter of your time, more or less?

A. A quarter.

Q. I'm going to hand you a document which has previously been labeled Exhibit Number 1 and ask you if you've ever seen that before?

A. Yes, I have.

Q. Could you identify it, please?

A. It's televising -- the sewer that was televised for the village of Durand.

MR. LARSON: Mr. Hearing Officer, in a side comment, I handed both to you and to Mr. Greene a stack of exhibits. They are in the order which I plan to introduce them, and those represent copies of the documents that are being discussed by the witness.

BY MR. LARSON:

Q. Now, Mr. Sweet, does it appear to you that the document previously identified as Exhibit Number 1 is a photocopy?

A. Yes.

Q. Have you ever seen an original of the sewer televising map?

A. I don't recall.

Q. Would you know of your own personal and direct knowledge where such an original of the sewage treatment televising map might be?

A. The original?

Q. Yeah.

A. No.

Q. Looking at Exhibit Number 1, does it seem to you to fairly and accurately represent the location of the various elements of the Durand sewage treatment system?

A. Rephrase that would you please.

Q. Does it seem to look to you on the paper the way the Durand sewer system appears in the streets of Durand?

A. Yes.

Q. Is there anything that you notice in

looking at Exhibit Number 1 that doesn't seem to be to you in the way things are now in the sewage treatment plant?

A. In the plant itself?

Q. I'm sorry. In the entire system.

A. There has been a change, yes.

Q. Could you tell me what that change is?

A. North of Main Street to Laona Street we put in a line all the way to West North Street to delete a bottleneck.

Q. Mr. Sweet, I'm going to show you in a moment another exhibit that is a map that has markings on it that evidently you prepared that shows areas that have been repaired and areas that have not been repaired.

So in terms of changes or repairs that have been made, I'm going to ask you a different set of questions about those, but in terms of the general configuration where the lines are and so on and so forth, is that map relatively accurate as the system sits today?

A. Yes.

Q. Now, I'm going to show you a document which has previously been labeled Exhibit 2 and ask you

take a look at that if you would please. Have you ever seen that document before?

A. Yes.

Q. And what is it if you know?

A. This was the repairs and future repairs that were to be addressed for the village of Durand in the sanitary sewer system.

Q. Now, the map previously identified as Exhibit 1 is the same as the map identified as Exhibit 2 except for markings on it that appear to have been made in red or blue magic marker; is that correct?

A. Yes.

Q. The markings on this instrument that were made in red and blue, do you know who made them?

A. I made a chart like this, but this doesn't look like some of the lines were added on.

Q. The document before you is produced in response to discovery in this matter as part of -- or discovery response which you signed.

MR. GREENE: Maybe I could explain what his problem is.

MR. LARSON: That would be fine. Go ahead, sir.

MR. GREENE: Mr. Sweet prepared one of these exhibits and so that I had enough copies, I had my secretary duplicate what he produced. What he might be looking at may be one that my secretary reproduced.

MR. LARSON: That's fine.

HEARING OFFICER KNITTLE: Thank you.

BY MR. LARSON:

Q. Do the red and blue lines on the map that is in front of you accurately reflect what you know to have been repairs that have been made to the Durand system and repairs that are contemplated to be made to the Durand system?

A. There's a couple in red that are marked down here that weren't really repairs.

Q. Could you identify for me the areas that are incorrect on the maps that's in front of you?

A. Well, I have there's a bypass line on manhole 4 and that's going into 2A, that was no repair.

Q. What you're pointing to on the map is on the right-hand side of the map as you're looking at it; is that correct?

A. Yes.

Q. And you're pointing to Mulvain Street which is a north/south street on the map; is that correct?

A. Yes.

Q. And Mulvain Street is roughly say 35 percent of the way into the page from the right-hand margin; is that a fair statement?

A. Yes.

Q. What I'm trying to do here is locate the specific area that you're talking about so Mr. Greene and the hearing officer can identify what you're talking about because we don't have the map up on a pedestal.

I want you to described as clearly as you can what you're looking at so that they can look at the same map that you're looking at and locate the places that you're identifying, so with that in mind, would you continue?

A. Manhole 4 it's on Mulvain Street; however, it runs straight into manhole looks like 2.

Q. Now, when you say manhole, that's a round dot on the page?

A. Yes.

Q. With MH and then a number after it; is that correct?

A. Yes.

Q. And manhole 4, that's on Mulvain Street, isn't it?

A. Yes.

Q. And manhole 2 is also on Mulvain Street, isn't it?

A. Yes.

Q. And there on the north end of Mulvain Street close to where the sewer system enters the treatment plant; is that correct?

A. Yes.

Q. Please continue.

A. East of manhole 4 it shows a repair which is made for approximately a half block and that was not a repair.

Q. Was that something other than a repair?

A. That is just an existing overflow when it gets -- when manhole 4 would get over burdened, it would run around and go into another manhole that would --

Q. So no work has actually been done?

A. No.

Q. Is there anything else on that map that looks to you to be incorrect or inaccurate?

A. There is on Mulvain manhole 7 which is Washington Street, there is a line directly east of manhole 7. That line there was rerouted. That was not repaired; however, we took it to a different manhole, a different location.

Q. And there are two lines at manhole 7?

A. Yes.

Q. And what you're saying is there is only one line there?

A. Yes.

Q. So around manhole 7, which again is on Mulvain Street, towards the south end of Mulvain Street where it shows two lines there, there's actually only one sewer line; is that correct?

A. There are -- it goes to the next manhole which is east of 7. There are some homes that empty into that, but that was no repair. That's a new line coming from the south.

Q. Other than the things that you've identified so far, is there anything else on this map that is inaccurate or that you'd like to point out for clarification?

A. As far as new repairs?

Q. New repairs or areas that are designated as

areas for future repairs.

A. It looks correct.

Q. Okay. So except with regard to the matters that you described to the hearing officer today, the map which has previously been identified as Exhibit 2 appears to you to be accurate in outlining repairs which have been made to the systems and other repairs which are contemplated; is that correct?

A. Yes.

Q. Now, I'm going to hand you a document which has previously been labeled Exhibit Number 3 and ask you if you've ever seen that before?

MR. GREENE: Is that Number 3?

MR. LARSON: Yes.

BY THE WITNESS:

A. I believe it was. Yes, I have.

BY MR. LARSON:

Q. Could you tell the hearing officer what it is, please?

A. This is lines that go from the main -- from the lift stations, the main pump and the backup pumps into the lagoon.

Q. All of those things together, the lift pumps, the pumps, the lagoons, are those systems that

are used in the treatment of sewage in the Durand system?

A. Yes.

Q. So if we were to characterize what we've looked at on Exhibits 1 and 2 as a collection system, in other words, things that lead up to the plant, and Exhibit Number 3 as a treatment plant, would that be a fair statement in your mind?

A. Yes.

Q. Now, with regard to the collection center described on Exhibits 1 and 2, what, if you know, is the function of the collection system?

A. The collection system it goes to the main pumps and it pumps into cell number one.

Q. What does the collection system collect?

A. Wastewater.

Q. And where does the wastewater come from?

A. The village residents.

Q. Would these be the people who are the customers of the Durand sanitary sewer system?

A. Yes.

Q. In addition to residences, would there be businesses and commercial users who were hooked up to the sewer system?

A. Yes.

Q. And with regard to the collection system, what does the ordinary material collected and brought to the treatment plant through the collection system consist of generally?

A. Wastewater.

Q. Would that be sanitary waste, for example, ordinary waste from peoples' day-to-day lives flushing toilets, sinks, bath tubs, so on and so forth?

A. Yes.

Q. And in the case of business and commercial users, it would be effluent that they dispose of down in the sewers that they have on their premises?

A. It would be, yes, discharge from the water.

Q. And what, if you know, is the ordinary amount of sanitary sewage collected and brought to the treatment plant on a daily basis basing your answer on the average for the first six months of 1999?

A. I don't recall. I'd have to look.

Q. And again referring to your answers to interrogatories -- I'm going to hand Mr. Sweet his answers. These are answers to interrogatories from

Mr. Sweet. I'm going to hand it to him to refresh himself.

Would you take a look at the documents which I'm handing you now and which I've identified to Mr. Greene and the hearing officer as your previous answers to interrogatories. Take a look at those answers and see if in looking at those documents you can refresh your memory with regard to the question I just asked you.

A. Would you ask me that question again?

Q. Sure. What, if you know, is the ordinary amount of sanitary sewage collected and brought to the treatment plant basing your answer on the average for the first six months of 1999?

A. It was 309,000.

Q. And that answer is based on the interrogatories that you have in front of you; is that correct?

A. Yes.

Q. Does the sanitary sewer system have design parameters that establish an ordinary daily amount for which it is designed to handle if you know?

A. Yes, it does.

Q. And what is that?

A. It's got -- I don't know the average. The daily -- maximum daily average is 450,000.

Q. And is there another daily average for the ordinary daily average?

A. The ordinary daily I guess I'm not familiar. It's 240 or -- I'm not familiar.

Q. Okay. And what, if you know, is the average daily gallon per capita daily usage for the Durand sewage system? By that I mean on an average daily basis, what does each person or each resident of the village of Durand who's connected to the system on a daily basis what does he or she put into the system?

A. 100 gallons per person per day.

Q. And what, if you know, is the current population served by the Durand sewer system?

A. I assume -- I'm think it's 1150.

Q. Is there an operating permit now in effect for the Durand sewer system if you know?

A. No. What kind of permit?

Q. Well, is there an NPDES permit now in effect for the sewage treatment system of the village of Durand?

A. It's being revised.

Q. Has there in the past been an NPDES permit?

A. Yes.

Q. And when did that expire if you know?

A. July of '99.

Q. So that would be the end of July just past? Today being August 10th, it would have July 31st just past; is that correct?

A. I'm not sure if that's correct. I thought it was the end of the July. I'm not sure.

Q. With regard to the permit, were there discharge levels established under that permit, do you know?

A. The old permit?

Q. Yes.

A. Yes, sir.

Q. And could you tell me what those were if you know?

A. I know the daily maximum was point 450, 450,000. The daily average I believe was 190.

Q. That would be 190,000 gallons?

A. Yes.

Q. Now, just roughly calculating, if there are 1150 people in Durand and each are contributing 100 gallons of water to the system per day, that's about

120,000 gallons per day, isn't it?

A. Yes, sir.

Q. Now, based on that same kind of calculation, if you assume a population of say 2500 for the village of Durand in the future, if the village were to grow to population level and if each person were to continue to contribute 100 gallons of sewage every day, that would work out to be about 250,000 gallons per day, wouldn't it?

A. Yes.

Q. And on the average daily basis, the existing permit had a level of roughly 190,000; is that correct?

A. Yes.

Q. If you know, would the addition of effluent from homes to be constructed in currently platted subdivisions in the village of Durand called Otter Creek Phase 3 and Twin Creeks result in a Durand population of roughly 2500?

A. No idea.

Q. You don't know?

A. No.

Q. Okay. Are there times when the inflow into the collection system of the Durand sewer system

exceeds the normal flow of 100 gallons per capita per day?

A. Yes.

Q. And based on your earlier testimony of an average of 306,000 gallons per day, that work outs to be substantially more than 100 gallons per day; isn't that correct?

A. Yes.

Q. What causes the increase in flow through the system if you know?

A. It's usually weather related. It's an abundance of rain precipitation.

Q. Does the Durand sanitary sewer system have as part of its operating mandate, in other words, what it's suppose to do on a daily basis, is it suppose to take care of storm water runoff?

A. I don't understand.

Q. Okay. Sanitary sewage comes to this treatment plant the treatment part of the system to be treated; isn't that correct?

A. Yes.

Q. And in that treatment process, certain materials what's sometimes called BOD and TSS and nitrates and other materials are removed from the

water; is that correct?

A. Through the process of treatment, yes.

Q. Through the process of treatment. What we identified on Exhibit 3 was the treatment plant that's where that takes place, isn't it?

A. Yes.

Q. And storm water that comes through the system is that treated in the same way?

A. Yes.

Q. And does that storm water to your knowledge contain TSS and BOD and the other materials that we've been talking about?

A. Yes.

Q. Is it a design -- an intended part of the design of the Durand system, if you know, to handle small runoff?

A. To an extent, yes.

Q. Are you familiar with the term inflow and infiltration?

A. Yes.

Q. And when I use the term inflow and infiltration, what do you understand that to mean?

A. I understand inflow being the original wastewater going through the system and infiltration

being unwarranted water entering the system through cracks and areas where there's leaks.

Q. Would it be fair to say that inflow is the influent that comes into the system that's intended to be treated by it?

A. Yes.

Q. And would it be fair then to say that infiltration is water or other material that comes into the system that was not intended to be received by that system?

A. Yes.

Q. From the period January 1st, 1997, to the date of this hearing, what is the highest single daily influent total into the system if you know?

A. From what dates?

Q. January 1st, 1997, to the date of this hearing.

A. I believe there was a day where we might have 1.5 or 1.7 million.

Q. Directing your attention to the day of April 24th, 1999, and again please look at your interrogatory answers if that will help you refresh your memory, what was the total influent into the system on that day?

A. It's here somewhere.

Q. Take your time.

MR. GREENE: What was the date you're asking about?

MR. LARSON: April 24th, 1999.

BY THE WITNESS:

A. You're talking effluent flow?

BY MR. LARSON:

Q. Influent.

A. Influent flow.

Q. Let me backup then hand you a document which has previously been labeled Exhibit Number 5 and ask you if you've ever seen that before? This is a group exhibit containing a number of sheets --

A. Yes.

Q. -- connected together?

A. These are my daily sheets that I keep track of the pumping.

Q. And what do they show for each day?

A. Each day shows the amount of hours pumped at the main lift station in how many gallons were pumped.

Q. Would you take a look at Exhibit 5 then and look at the day April 24th, 1999. I believe that

would be towards the back?

A. April -- oh, '99.

Q. Yeah.

A. What date?

Q. April 24th.

A. I have a figure of 1,993,000 gallons.

Q. And without going through your records in more detail, would that appear to you to be one of the highest if not the highest days for inflow into the system -- influent into the system from the period of January 1st, 1997, to today's date?

A. Yes.

Q. Now, getting back to your earlier testimony that the average contribution to the system per resident of the village of Durand is 100 gallons per day, would it -- if you divide 1,993,000 gallons by 100 or 1100, the number of residents in the village, that will be about 1900, 1800 gallons per resident, wouldn't it?

A. Yes.

Q. And that's roughly 19 times then the daily residential influent in the system; is that correct?

A. Yes.

Q. Based on your recollection and knowledge --

Strike that.

Now, for the first six months of 1999, you said that there was an average of about 306,000 gallons of inflow into the system every day.

A. Not every day.

Q. An average per day, I'm sorry.

A. Yes.

Q. And how many of those days -- just generally now, I'm asking for an estimate not an exact number. On how many of those days would the influent into the system exceed 450,000 gallons in a percentage, say 10 percent, 20 percent, say something like that?

A. On influent?

Q. Uh-huh.

A. Out of six months?

Q. Uh-huh.

A. Ten percent.

Q. Okay. And on those days where the influent is higher, is there anything in the condition of the weather or anything else that would lead you to predict that a day might have higher influent?

A. Yes.

Q. What would that be?

A. A large amount of rain.

Q. So when it rains in Durand, a fair amount of rain water then cycles through the sanitary sewer system; is that a fair statement?

A. Yes.

Q. Now, this rain water that comes into the Durand system, would this be infiltration as you defined it a minute ago?

A. Infiltration and we have some illegal hookups into sump pumps.

Q. When you say illegal hookups, would that be situations where a sump pump drains directly into the sanitary sewer?

A. Yes.

Q. And that's prohibited by ordinance of the village of Durand?

A. And also through the EPA.

Q. Do you know roughly how many hookups like that there are in the village of Durand?

A. No.

Q. Has anybody ever gone out and taken a look or attempted to count those if you know?

A. I have been involved in about four or five that I have observed where they were pumping

illegally into the sanitary sewer system.

Q. But there hasn't been any systematic search to find people?

A. There was a survey, 1977 by Baxter and Woodman. They did a smoke test and they come up with some 40 or 50 illegal hookups.

Q. And how many total residential hookups are there in the village of Durand if you know?

A. I believe there's 460.

Q. What, if you know, is the capacity in gallons per minute of the main pumps at the treatment plant, and again feel free to refer to your interrogatory responses if you need to?

A. One pumps 500 gallons, 2 pumps running 600.

Q. And what, if you know, is the capacity of the emergency pumps at the treatment plant?

A. Are you talking emergency or backup?

Q. I'm sorry, backup.

A. One pumps 950, two pumps is 1200.

Q. And is that the total of those two pumps or is that the total of the whole system?

A. That's the total of four pumps.

Q. So if all four pumps are pumping, there are 1,250 gallons per minute can be handled by this; is

that correct?

A. All pumps running would be 1800 gallons per minute.

Q. 1800 gallons per minute. Okay. I'm going to hand you a document which has been previously labeled Exhibit Number 4 and ask you if you've ever seen that before?

A. No.

Q. You did not prepare that?

A. No.

Q. And it's never been shown to you by anybody?

A. (Shaking head.)

Q. Do you know of your own direct knowledge --

HEARING OFFICER KNITTLE: Excuse me. Sir, you have to say yes or no. I didn't get the -- I don't think the court reporter got it to your previous question has that ever been shown to you before.

THE WITNESS: No.

HEARING OFFICER KNITTLE: Thank you. I didn't mean to interrupt you, sir.

BY MR. LARSON:

Q. No problem. What, if you know, is the

capacity of the lines leading from the manholes directly west of the treatment plant to the plant?

MR. GREENE: Can you repeat that question?

BY MR. LARSON:

Q. What, if you know, is the capacity of the lines leading from the manholes directly west of the treatment plant to the plant?

A. I guess I don't understand the question.

Q. How much water in gallons per minute, if you know, can travel through the pipes that lead from manhole 2 and manhole 2A directly to the pumps at the treatment plant?

A. Manhole 2A off of Mulvain Street?

Q. Right.

A. I don't know.

Q. What happens, if you know, when the influent coming through the collection system to the pumps exceeds the capacity of the pumps to clear the incoming flow?

A. It goes into the main lift wet well, and when these pumps cannot keep up, it overflows into the backup pumps wet well and then all four pumps run and pump into the collection system.

Q. What happens, if you know, when both wet

wells are filled to capacity?

A. It backs up into the sewer lines.

Q. Now, you previously testified that infiltration into the system occurs when it's raining pretty much. And again, assuming that both wet wells are full and inflow is backing up into the collection system and assuming again that it's raining, there would also be water coming into the collection system at that time, wouldn't there be?

A. Yes.

Q. And what happens, if you know, when the collection system lines after the two wet wells are filled the collection system lines fill up?

A. It backs up into the system.

Q. Would at any time backups into the system ever backup into residential sewers under those conditions?

A. Yes.

Q. Has that ever happened in your experience?

MR. GREENE: Objection, unless we're talking about subsequent to November 4 of 1997.

HEARING OFFICER KNITTLE: Mr. Larson?

MR. LARSON: Pardon?

HEARING OFFICER KNITTLE: Do you have a

response to the objection?

MR. LARSON: I'm asking -- the question now is foundation and then I'm going to ask the specific question Mr. Greene is referring to as a follow-up. It makes no difference to me so long as the foundation is there we can go on to the next question.

HEARING OFFICER KNITTLE: I'm going to sustain the objection. You can ask it.

BY MR. LARSON:

Q. Has that ever happened to your knowledge after January 1st, 1997?

MR. GREENE: The objection was November 4 of '97 when the first repairs were completed.

MR. LARSON: We haven't had any testimony concerning the repairs. That isn't in evidence at this point. I'm asking a question with regard to a specific time period.

HEARING OFFICER KNITTLE: Can I see the order that we're talking about, the board order of April 13th? Thanks.

MR. GREENE: It just refers to the '97.

HEARING OFFICER KNITTLE: Is says after the sewer system was repaired in 1997, correct?

MR. GREENE: Correct.

HEARING OFFICER KNITTLE: What date was that, sir?

MR. GREENE: November 4 is the completion date.

MR. LARSON: It's not in evidence yet, Your Honor.

MR. GREENE: That's correct. So actually I'll withdraw that part of my objection.

HEARING OFFICER KNITTLE: I'm not going to rule on the objection. You can answer that question. If you could rephrase it or we could have the court reporter read it back.

BY MR. LARSON:

Q. To refresh where we were, we were talking about a situation where inflow and infiltration coming into the system both wet wells in front of the main pumps and the emergency pumps are full and the influent is backing up into the sanitary sewer system at the same time there's rain water and ordinary sanitary sewage coming into the system, since January 1st, 1997, has that situation ever resulted in a sewer backup into a residence if you know?

A. From January 19 until present?

Q. Yes, sir.

A. Yes.

Q. Could you tell the court when and where?

A. I got June 16th, '97 Priscilla Heinen sewer backup in basement.

Q. Any others?

A. I have a -- that's the only one that I have because of the storm where the sewer was backing up with weather problem related.

Q. Based on your knowledge of the system as it is now and assuming the situation where the inflow into the system was sufficient to fill up both dry wells at the time when there's rain coming down, infiltration into the system, is it possible as the system is configured now for the flow of water to be so great that it could cause a backup into a sanitary -- into a residential sewer?

MR. GREENE: I would object. That's very speculative.

MR. LARSON: It's based on his knowledge of the system as it is now. We've gone into that. It's quite extensive.

BY THE WITNESS:

A. I would need more data, I mean, a five inch

rain, a ten inch rain, a two inch rain.

Q. Let's say a five inch rain.

A. Borderline.

Q. How about a seven inch rain?

A. It's possible. It depends how long it took to rain. If it rained five inches in a half an hour, yes.

Q. For the period of January 1st, 1995, now instead of 1997 to this date, what is the greatest amount of flow received by the pumps in any 24 hour period if you know? I'm specifically not asking what's the greatest pumped rather the greater amount delivered to the pumps by the pumping system, again if you know?

A. I don't know. I don't know.

Q. Would there be records anywhere that would reflect an amount like that if you know?

A. I don't recall.

Q. Is it routinely the practice of the village of Durand to measure the amount of water that's received at those two dry wells? Is there any way to measure that if you know?

A. The dry wells?

Q. The wet wells in front of the pumps, can

you measure what comes into those wet wells?

A. No.

Q. Is there a way to measure what comes into the collection system at any point before those two wet wells? In other words, are there measuring stations out in the system to show what comes in anywhere?

A. No.

Q. Is the only way to measure inflow and infiltration into the system by monitoring how much the pumps pump?

A. Yes.

Q. And when you monitor how much the pumps pump, you multiply that times the capacity of the pumps and that's the amount that you pump that day; is that correct?

A. Yes.

Q. Now, directing your attention again to the date of April 24th, 1999, and again looking at that record if you need to refresh your memory, could you tell me for how long and what pumps functioned on that day?

A. I got 10.8 hours on the backup pumps and 45.9 or 4 hours on the main pumps.

Q. How is it possible to have more than 24 hours of pumping in a day?

A. I probably didn't check it 8 o'clock to the next day at 8:00. Possibly I don't check it every day at the time, so it might have been I checked it later that day.

Q. But you can tell whether or not the pumps have been running continuously during that period; is that correct?

A. Yes.

Q. So if those pumps were then running for either 45.4 or 45.9 hours during that period, that means that the pumps have been running continuously during that time; is that correct?

A. Yes.

Q. What does that mean about the wet well in front of the main pumps for the pumps to be running?

A. It's being supplied with enough water to pump.

Q. So that means that during that entire period of time, water has been coming into the wet well in front of the main pumps; is that right?

A. Yes.

Q. Now, with regard to the backup pumps or the

emergency pumps, I'm not clear on what they are, but would it also be true then that for ten hours during that period of time they were also being supplied with water?

A. Yes.

Q. Now, in the ordinary of course of events, when you're just dealing with sanitary sewage or normal effluent, the emergency pumps won't kick in; is that correct?

A. That's correct.

Q. And how long in an ordinary day would the main pumps pump in terms of hours?

A. Today they pumped -- this morning they pumped four hours.

Q. And that's probably all they'll pump all day?

A. Yes.

Q. And was today a normal day in terms of inflow into the system?

A. It was like yesterday.

Q. Wetter than usual, drier than usual?

A. 120,000 gallons.

Q. Now, getting back to the NPDES permit, you're saying that at the present time there is no

NPDES permit for the plant; is that correct?

A. It's being revised.

Q. When you say it's being revised, tell me what you mean?

A. It's down state in the permit department. They assumed that lagoon -- it went up for referendum and it was supposed to be enlarged; however, the referendum failed, so down state the permit department changed the flows because they thought our lagoon was enlarged.

However, the referendum shot the lagoon project down, so we have to go back. It was a mistake they made -- overlooked down state. So now they have to go back because the lagoon hadn't been enlarged enough and nothing had been done to it, the flow has changed.

Q. So the permit hasn't been revoked or there's been no enforcement action?

A. No, it hasn't.

Q. So the only reason that there isn't a permit right now is because there was a mistake in the permit that was going to be issued and that has to be corrected?

A. Yes, it does, revised.

Q. Now, do you know what that revised permit will show as the permitted levels?

A. No.

Q. Do you expect that it will be the same as the old permit?

A. Yes.

Q. Is there any reason to believe that in terms of the application that you filed to have this permit renewed that there would be any changes in the permit?

A. No.

Q. And if that permit is renewed on the basis that you're talking about, what would be the term of that permit if you know?

A. It's a DMR. It's discharge monitoring permit that allows us to discharge into a receiving stream Otter Creek.

Q. And would that have a term of say five years or something like that?

A. Yes.

Q. It would have a term of five years?

A. (Nodding head.)

Q. Is there anything to your knowledge currently planned that would change the capacity of

the lagoons at the plant that would cause the permitted levels on that permit to be changed during the next five years?

A. We have a couple of subdivisions that may be going into place, yes.

Q. And what would the effect of those subdivisions be?

A. There would be more wastewater received at the plant to be treated.

Q. Would that require the permit to be changed in some way if you know?

A. I don't know.

Q. What is the permit level of effluent discharge allowed by the NPDES permit that was in effect through July and will probably be in effect when the new one is approved?

A. The design maximum flow, the average flow?

Q. Whatever the permit would allow if you know.

A. Well, the design maximum flow I believe is 450, 450,000 gallons effluent.

Q. Effluent. And if the pumps are pumping at maximum capacity, where does the effluent coming out of the pumps go?

A. Into the lagoon area, cell number one.

Q. And if you were to look at Exhibit Number 3, cell number one is one of the improvements that's identified in that; is that correct?

A. Yes.

Q. And that's the first of three treatment cells in the Durand plant; is that correct?

A. Yes, it is.

Q. And do you know what the capacity of that lagoon is?

A. Cell number one is 2,154,000 gallons.

Q. In the ordinary course of events, if you know, how long does sanitary sewer effluent spend in cell one?

A. I don't know.

Q. If you know, how long does effluent remain in the system to be treated once it goes into cell number one from the time it goes into cell number one to the time it is discharged into the receiving stream?

A. I don't know.

Q. Do you know if that's the same in every case, or does it change from day to day?

A. It would change.

Q. And what would cause it to change?

A. High amount of water being pumped into the lagoon.

Q. If you have a high amount of water being pumped into the lagoon, how does that change the effluent being received into the stream in terms of amount?

A. It would go up.

Q. Are there situations where the effluent being -- going into the receiving treatment is in excess of 450,000 gallons per day?

A. Yes.

Q. From the period of January 1, 1997, to the date of this hearing, how many times has that happened if you know?

A. Thirty-some times since January 1997 through June of 1998.

Q. For the period of time after November 4th, 1997, has it happened?

A. Yes.

Q. How many times?

A. From what was the date?

Q. November 4th, 1997.

A. Twenty-four times.

Q. Now, directing your attention to the period of time from April 23rd, 1999, to May 8th, 1999, you were superintendent of public works in Durand during that period, weren't you?

A. Yes.

Q. And did you keep records of the inflow and effluent from the Durand sewage treatment plant during that period of time?

A. Yes, I did.

Q. I'm going to hand you a document which has previously been label Exhibit 6 and ask you to identify it please.

A. These are my final effluent daily flow charts, monthly and daily.

Q. When you were referring to the number of times that effluent from the plant has exceeded 450,000 gallons in a day, did you take the material that you used to answer that question from those reports?

A. Yes, I did.

Q. And are those reports that you have kept in the ordinary course of business as part of your job description as superintendent?

A. Yes.

Q. Now, what you have there and also with regard to Exhibit Number 5 those are photocopies, aren't they?

A. Yes.

Q. Are the originals of those photo copies maintained as records by the village of Durand?

A. Yes.

Q. And are you the person responsible for maintaining those records?

A. Yes.

Q. And with regard to Exhibit 4 -- or Exhibit 5 rather and Exhibit 6, do those appear to be accurate copies of the records?

A. Yes.

Q. Now, directing your attention to the period of time from April 23rd to May 8th, 1999 -- again that report will probably be close to the bottom, maybe it's on the top. I'm not sure.

A. Which ones?

Q. Effluent Exhibit Number 6, April 23rd to May 8th, 1999.

A. Okay.

Q. Now, in each day between April 23rd, 1999, to May 8th, 1999, did effluent discharge from the

treatment plant exceed 450,000 gallons on each and every day?

A. Yes.

Q. Since that time, if you know, has it exceeded 450,000 gallons on any other day?

A. Since April of '99?

Q. Right.

A. Yes.

Q. How many times roughly?

A. April what?

Q. I'm sorry, after May 8th, after May 8th.

A. Of '99?

Q. Yes, sir.

A. After May 8th of '99 -- I don't see any violations after May 8th.

Q. What do you recall about the weather from April 23rd to May 8th, if anything, 1999?

A. It was -- we had a lot of precipitation.

Q. It was very wet during that time?

A. Yes.

Q. Now, with regard to the NPDES permit, other than the gross amount of volume, in other words, the 450,000 gallons per day, are there any other effluent components that are controlled by that NPDES permit?

A. On what, the discharge?

Q. Yes, sir.

A. Are there any other components, yes, I had a V-notch weir. I have a flow meter and when the flow gets up so high on this V-notch weir, the amount of water goes through it so fast that we have to use a yardstick and we have to do some sort of a formula.

Q. So basically there are times when the outflow from the system exceeds the capacity of the flow meter that's there to measure it?

A. Yes. Yes.

Q. So effluent flow at those times would be an estimate using a notch meter and a yardstick?

A. Yes.

Q. In that effluent, other than storm water runoff, is there anything else in it in terms of sewage?

A. I found a turtle in it last week.

Q. On an ordinary basis?

A. No.

Q. Would there be BOD in it?

A. Yes.

Q. Would there be TSS in it?

A. Yes.

Q. BOD, TSS and nitrates are all -- your discharges of those are regulated by the NPDES permit; isn't that correct?

A. Yes.

Q. Now, from the period of time from January 1st, 1997, to the day of this hearing, has the Durand sewage treatment plant ever violated the effluent regulations with regard to BOD, TSS and other components of the sewage that's discharged from the plant?

A. We're talking hydraulic?

Q. I'm sorry. We're talking about the effluent from the plant, what's in the water that's discharged from the plant to the receiving stream?

A. Yes, it has had some violation days.

Q. Could you tell me when those were?

A. You want all the dates?

Q. Yes, sir.

A. February 1997.

MR. GREENE: Objection if we're going back to --

MR. LARSON: Same response, Your Honor.

HEARING OFFICER KNITTLE: Did you finish your objection.

MR. GREENE: I'll withdraw it if it's after January 1.

MR. LARSON: After January 1.

HEARING OFFICER KNITTLE: I'm not going to rule on the objection. You can proceed. It's been withdrawn.

BY THE WITNESS:

A. After January 1 of 1997?

BY MR. LARSON:

Q. Yes, sir.

A. We're talking the violations of -- the hydraulic overload violations of the sewer effluent?

Q. Yes.

A. February, 1997, April 1997, suspended solids June of 1997, and these are suspended solids September 19 -- and this is not an all-month deal. This is one time September of 1997, suspended solid, December of 1997 CBOD, June of 1998 CBODs, and June of '99 suspended solids, seven violations since February of '97 until June of '99.

Q. And the last one in the list that you identified was June of 1999; is that correct?

A. Yes, it was.

Q. I'm going to hand you a document which has

previously been labeled Exhibit 7. Again, this is a group exhibit. Could you tell the court what this is?

A. These are my discharge monitoring permits submitted to the EPA on a monthly basis.

Q. Do you prepare those reports?

A. Yes, I do.

Q. And do you maintain the originals of those reports as records of the village of Durand in the ordinary course of business?

A. No.

Q. Who does?

A. The Illinois EPA. I make a copy. I keep the copies and I send them off to the Illinois EPA.

Q. So the originals are in the possession of the Illinois EPA?

A. Yes, they are.

Q. Do the documents in your hands that constitute Exhibit 7, do they look to be true copies of the copies that you've retained?

A. Yes.

Q. And Exhibit 7 those reports are they the reports that you referred to when you collected the information that you used in your answer concerning

violations of the effluent loading --

A. Yes.

Q. -- that we just discussed?

A. Yes.

Q. So those are the documents that are the basis of that response; is that correct?

A. Yes, they are.

Q. With regard to Exhibits 5, 6 and 7, again, let me just ask you those are photocopies of reports that you maintain or prepare; is that correct?

A. Yes.

Q. And to your knowledge without going through each one, the contents of the exhibits in front of you appear to be accurate copies of these records?

A. Yes.

Q. Now, directing your attention now again to the collection system as opposed to the treatment system, by that I mean getting back to the laterals and mains and so on a so forth that we were talking about earlier described on Exhibits 1 and 2, is the length of the -- the total length of the Durand sewer system about seven miles if you know?

A. I don't know.

Q. Has there been since January 1st of 1995 a

complete survey of the condition of the collection system in the Durand sewer system?

A. Since when?

Q. January 1st of 1995.

A. Yes. Not a complete survey, no.

Q. What, if you know, was surveyed with regard to the condition of the collection system after January 1st, 1995?

A. There were certain areas that were TVed problem areas that we felt that -- and at the time I was not in charge so I wasn't really in on this.

Q. Referring to Exhibit 2, is this -- now, Exhibit 2 is the one that has the red and blue marks on it. Is this a system of the repaired portions? In other words, does this show the repaired portions of the system with the modifications that you testified to earlier?

A. In red?

Q. Yes.

A. Yes.

Q. Now, if you know, how was it decided to repair the areas that are marked in red?

A. That was an engineering decision.

Q. Do you have any knowledge either generally

or informally as to why those sections were chosen?

A. Yes, I do.

Q. What is that?

A. They were the main trunks going to the lift station.

Q. What, if anything, do you know about the condition of those lines prior to they being repaired?

A. They were -- there was a lot of -- they were too small and there was a lot of dips and breaks in them.

Q. I'm going to hand you a document which has previously been labeled as Exhibit 8 and ask you if you've ever seen that before?

A. Yes, I have.

Q. Could you tell the court what it is, please?

A. This is a summary of the televised survey that was conducted of 9/5 of '95.

Q. Okay. And what, if any, is the connection between that list and the map that's been used in both Exhibits 1 and 2 if you know?

A. The connection is that this is a summary of what -- where the breaks are in the survey, the

televised survey.

Q. Are there numbers on the individual items on Exhibit 8 on the far left-hand margin?

A. Yes.

Q. And do you know if those numbers relate in any way to numbers on the map which comprises Exhibits 1 and 2?

A. They should coincide with manhole numbers and areas where the breaks were.

Q. So the breaks that are listed on Exhibit 8 have a number and then using that number, they're located on the map that's used as the basis of Exhibits 1 and 2; is that a fair statement?

A. Yes.

Q. Now, there are a lot of breaks listed on Exhibit 8. Do you know the total number just offhand?

A. No.

Q. Of your own direct knowledge, do you have any recollection of the total number of breaks or other problems which were identified by the televised survey of the system?

A. Just what's on this paper and I don't have it memorized or I don't know how many there were.

Q. Does it look to you like there might be more than 50?

A. Yes.

Q. What happens when a portion of the collection system is damaged in one of the ways identified in the televised report?

A. It restricts the flow through the pipe.

Q. When you say it restricts the flow through the pipe, would that be the inflow, the ordinary inflow through the system is restricted by a break in the pipe?

A. Yes.

Q. Does a break in the pipe or any of the other items that are identified as damage to the system on Exhibit 8 have any impact on infiltration into the system if you know?

A. Very much so.

Q. How does it affect infiltration?

A. It's a place for wet sub soils and when it's very deep, the water will find a way to get out of the ground so it will seep into the sewer system.

Q. How is that related to rain fall in the village of Durand if you know?

A. The more rain we get, the water table would

come up and then that would try to relieve itself through finding openings anywhere it could. It could be a tile. It could be a sewer. It could be through -- just through the stone in the village, the rock.

Q. Would it be fair then to say that infiltration comes into the system through these breaks?

A. Yes.

Q. Other than the illegal hookups of sump pumps that you talked about before, is there any other way for infiltration to come into the system?

A. There could be some -- some people have eave troughs hooked into the sewer and down spouts.

Q. Is there any way of knowing where the majority of infiltration comes from into the system?

A. I don't know.

Q. Now, is there any relationship to your knowledge between a line break and a sewer backup?

A. Is there any what?

Q. Is there any relationship? I mean, if there is a line break, could that cause a sewer backup?

A. Yes.

Q. How would that work?

A. It would restrict the flow out of a certain designated area that couldn't get out fast enough and it possibly could -- if there's a broken pipe, it could be restricting the flow and it wouldn't get out.

Q. So if there was infiltration and ordinary inflow coming into a portion of the system behind a break, that break could cause that to backup into residential sewers?

A. There is a lot of scenarios, I guess, yes.

Q. That's one of them?

A. Yes.

Q. Now, what's an obstruction in the system if you know?

A. It could be tree roots, grease.

Q. Would an obstruction then be something that intrudes into the system from the outside?

A. From residents.

Q. And what effect, if any, does an obstruction have on the flow of water through the system?

A. It constricts water from going through the lines.

Q. When you say it constricts water through the lines, is that the same phenomena that you talked about with regard to breaks in the sewer line?

A. Yes.

Q. In other words, if there's an obstruction and flow coming in behind the obstruction, it could backup behind the obstruction?

A. Yes.

Q. What's a hammer tap if you know?

A. I don't know.

Q. It's identified -- many, many hammer taps are identified in the televised system. Have you ever seen one or repaired one to your knowledge?

A. No.

Q. It's probably less serious than an obstruction or a break in the line; isn't that correct?

A. I would assume.

Q. Directing your attention now to Exhibit 2 is the map that you marked up or was marked up based on your drawing, could you direct your attention to North Street?

Now, North Street is an east/west street in the village of Durand that runs from basically the

west edge of the village all the way across almost to the east end of the village; isn't that right?

A. Yes.

Q. And most parts of the village, there's only one street to the north of it; is that right? I'm just trying to locate it for the hearing officer.

A. Yes.

Q. Now, what's the current condition of the sewer line on North Street if you know?

A. As compared to what?

Q. Does it have any breaks or obstructions?

A. I don't know.

Q. Based on the televised survey, would that -- assuming that survey is correct, would that tell you anything about the condition of that line?

A. Yes.

Q. What would it tell you?

A. That it had a lot of faults in it.

Q. To your knowledge, has that line been repaired as of the date of this hearing?

A. Not all of it.

Q. Has some of it been repaired?

A. Yes.

Q. Is some of it scheduled to be repaired in

the future?

A. Not to my knowledge.

Q. Is there a blue line on North Street?

A. Uh-huh.

Q. Does that indicate a future repair?

A. That has already been finished -- completed. At the time we did this, it hadn't been repaired, but now it was repaired now. It's completed.

Q. So all the way along North Street the line has been repaired?

A. Not all along.

Q. Where has it not been repaired?

A. On the east end of the blue mark and on the west end of the blue mark.

Q. But a large stretch of North Street has been repaired?

A. Yes.

Q. Since January 1st, 1997, have there been any sewer backups on North Street if you know?

A. Since when?

Q. January 1st, 1997.

A. On North Street?

Q. Yes, sir.

A. It shows one here, yes, the summer of 1997 on North Street, and it was a broken service in the main line that was obstructing flow, and we did have problems with it backing up to an individual's -- it didn't backup into her basement. It backed up into her sump pump and her sump pump was pumping out into the lawn, so she didn't have any backup in the basement, but there was a problem.

Q. That was one septic tank that -- or sump pump that didn't pump into the system, it pumped out of the system?

A. Well, that was a kind of a sticky situation because ordinarily if you had a sewer backup for it to get into your sump pump is kind of a -- it's not really the way things are supposed to happen.

So somehow their sump pump was -- there was a line that got into their sump pump. I don't know exactly. Because it was under the floor of the house, I haven't a clue, but she was getting a lot of water backed up into her -- and this was in the middle of summer and it was dry, so it was not weather related.

HEARING OFFICER KNITTLE: Mr. Larson, let's go off the record for a second.

(Discussion had off the record.)

(Recess taken.)

HEARING OFFICER KNITTLE: We're back on the record after a brief recess, and we were continuing with the direct examination of -- sir, I can't remember your name.

THE WITNESS: Mike Sweet.

HEARING OFFICER KNITTLE: Mike Sweet. You can proceed, sir.

BY MR. LARSON:

Q. Mr. Sweet, the backup that you just testified to on North Street, would that have been the Waller residence if you know?

A. Yes.

Q. Now, I'm referring again to Exhibit Number 2 on the map. Would you locate Mulvain Street? Now, Mulvain Street again is the north/south street that is about 35 percent of the way across the page on the eastern half of the village; is that correct?

A. Yes.

Q. Now, there is on Mulvain Street a red line; is that correct?

A. Yes.

Q. And does that indicate the repairs have been made on Mulvain Street?

A. Mulvain Street, yes.

Q. Were all these repairs along Mulvain Street made at the same time if you know?

A. Yes.

Q. When was the main sewer line repaired on Mulvain Street?

A. I believe it was finished in '98 of October or November -- or was it '97? I guess I don't know.

Q. Have there been sewer backups along Mulvain Street since the repairs were made?

A. I believe Heinen there was one. The Heinen one, yes.

Q. And that was along Mulvain Street?

A. Yes, it was.

Q. Are you familiar with houses located at 211, 207 and 704 Mulvain Street?

A. What's the numbers again?

Q. 211, 207 and 704.

A. I don't know. I'd have to look. No.

Q. Now, Mulvain Street, do other mains and other feeders in the system empty into Mulvain Street?

A. Yes.

Q. And Mulvain Street then does that go to manholes number 2 and 2A where the system turns and moves toward the treatment plant?

A. Yes.

Q. And manholes 2 and 2A, are you familiar with them?

A. No.

Q. Do they have any special capacity or are they larger than any other manhole if you know?

A. I'd have to look on my blueprint at the shop. I don't know exactly how big that line is.

Q. Now, do you know what the capacity in gallons per minute of the repaired line on Main Street is?

A. No.

Q. Do you know if it's greater or lesser than the capacity of the line that was there before the repair?

A. It's greater.

Q. It's a larger line than was there before; is that correct?

A. Yes, it is.

Q. Now, referring now to Exhibit 8 which was

the list of problems identified on the televised report --

A. Uh-huh.

Q. -- have all of the problems identified on that televised list been repaired if you know?

A. No.

Q. Have plans been made to repair all the items that are on that list?

A. I don't know.

Q. Of the ones that remain to be repaired, would they be half or less of the total number of items that were identified?

A. I would say more than half.

Q. More than half. Is it part of your job on a daily basis to investigate reports of sewer backups in areas connected to the Durand sewer system?

A. Yes.

Q. So when somebody reports a sewer backup to the village of Durand, you're the guy who gets the report; is that right?

A. It comes through the office usually.

Q. Somebody else answers the phone, but it probably --

A. It would be directed towards me.

Q. It would be directed to you. What do you do when a report of sewer backup comes in?

A. I would go investigate it.

Q. And when you would go to investigate it, what would you do?

A. I would see if it was a sewer backup, if it was storm surface water, if it was a broken water line. I would go in the basement and look around.

Q. How would you tell the difference given the fact that there's substantial storm water infiltration into the system between storm water in a basement and sewage water in the basement?

A. Well, surface storm water if it was to leak in the wall, it would be a lot clearer and it wouldn't have an odor.

Q. So if there are no signs of leakage on the walls and the house was connected to the sanitary sewer, would you probably conclude that it was a sewer backup?

A. Well, it depends if it hadn't rained or it could have been a broken water line under the house, I don't know. It would be conditional, whatever the conditions were. It would be -- it might have gone into something that has nothing to do whatsoever with

the sewer.

Q. As superintendent of public works, is the water system part of your responsibility as well?

A. Yes, it is.

Q. And inflow into the sanitary sewer system, not including infiltration not including storm water, water that comes into the sewer system as inflow has to come from the Durand water system; is that correct?

A. Yes.

Q. So in an ideal world the water that comes out of the Durand water system would go through the sewer system of Durand and be emptied into Otter Creek; is that correct?

A. In the ideal world?

Q. In the ideal world.

A. Phrase that again. You lost me on that one.

Q. Now, in an ideal situation, all the water that's pumped out of the Durand water system would go through the Durand water sewer system and be discharged into Otter Creek?

A. Barring lawn sprinkling and washing cars, yeah.

Q. So it's not exactly a closed system, but basically that's how it works, water comes out of the water system and through the sewer system and into the creek?

A. Yes.

Q. And do you know roughly how much water gets pumped every day by the Durand water system?

A. Yes.

Q. Could you tell us how much that is?

A. Which day?

Q. On an average day.

A. Today it was 170,000 gallons.

Q. 170,000 gallons?

A. Yes, sir.

Q. And you previously indicated that 120,000 gallons went through the sewer system?

A. Yes.

Q. Where does the rest of that water go if you know?

A. Sprinklers, washing cars.

Q. There are leaks in the water system?

A. I don't know. If there was, I should know about that because they usually come through the ground.

Q. Other than the incidents that you already testified to, have there been other sewer backups in residences hooked up to the system since January 1st, 1997?

A. Since January 1st, 1997?

Q. Yes, sir.

THE WITNESS: Can I ask my lawyer something?

HEARING OFFICER KNITTLE: No. You have to answer the question as put to you unless your lawyer objects.

BY THE WITNESS:

A. Prior to 1997?

BY MR. LARSON:

Q. No, after 1997.

A. After 1997?

Q. Yes, sir.

A. Am I aware of any sewer backup?

Q. Yes, other than the ones we've already testified to?

A. No.

Q. Did you ever receive a report of a sewer backup from Mr. Mulvain?

A. A report?

Q. Yes.

A. Yes. He indicated he may have sewage in his basement.

Q. And when was that if you recall?

A. I believe it was -- I guess it was 6/25 of '98.

Q. And did you investigate that report?

A. No, I didn't.

Q. Have there been any other reports by any other person of sewer backups in the village of Durand since January 1st, 1997, that you have not investigated?

A. I don't know.

Q. Was there ever a report of sewer backup by a gentlemen by the name of T. Butler do you know?

A. I don't know.

Q. Now, with respect to the repairs that have been done to the Durand system since January 1st, 1997, can you tell me what amount of reduction in inflow in the system has resulted from those repairs?

A. No, I can't.

Q. Is there any way to measure any reduction in the infiltration into the system as a result of any repairs that have been made, do you know?

A. I don't know, no.

Q. Do you believe based on your experience and position as superintendent of public works in the village of Durand that there has been a reduction of inflow infiltration into the Durand system as a result of these repairs?

A. It's my personal feeling that there has been a reduction of infiltration into the sewer system, yes.

Q. And again, on the same basis, by what amount do you think it's been reduced?

A. Just from my pumping data, I can't say, but -- I don't know.

MR. LARSON: I'm going to take a moment.

HEARING OFFICER KNITTLE: Please.

BY MR. LARSON:

Q. Did Kelsey Excavating do any work on the Mulvain Street line in Durand in February of 1998, do you recall?

A. Yes, they did.

Q. What did they do?

A. There was a line that was supplied to the Heinen residence that was fatigued, and we abandoned that and run a new line and a new manhole so it would

correct the backups in the Heinen residence.

Q. And you previously testified that the Heinen residence was one of the backups that you investigated since 1997; is that correct?

A. That's correct.

MR. LARSON: I have nothing further of this witness.

HEARING OFFICER KNITTLE: Mr. Greene, do you have cross?

CROSS-EXAMINATION

by Mr. Greene

Q. Mr. Sweet, working a little bit backwards, with regard to your testimony on Heinen, I thought that you testified that that backup occurred after the repairs. Was I mistaken?

A. Well, we had a Mulvain Street repair. They did the whole line and then, yes, after that Mulvain Street was repaired. It was in March the following year. In March because of problems we had the with residence, yes, we repaired that after the initial Mulvain Street repair.

Q. So that backup was prior to the completion of the first repairs in 1997?

A. They had backups prior to that -- prior to

1997; however, they still -- after the new repair on Mulvain Street, they still was having an isolated problem there at the residence.

Q. And when was that repair made to correct that isolated problem?

A. It was made -- I guess I didn't -- when you said Mark Kelsey I didn't get the date, but it was in I think March of '98.

Q. I believe you also testified about a reported backup by was it Sally Waller?

A. Yes.

Q. And did you investigate that report?

A. Yes, I did.

Q. And when was it reported to you?

A. It was in '97 I believe June or -- the summer of '97. I didn't really have an exact date. It was I believe in June or so or July.

Q. And did you investigate it?

A. Yes, I did.

Q. And what conclusion did you draw from that investigation?

A. Down the line from her residence was an obstruction, a broken -- a line and the pipe is settled and the water was not getting out and through

the main, so it was backing up.

Q. And when was that repaired, or was it repaired?

A. Yes, it was repaired. I repaired it -- public works repaired that one on 4/28 of '98.

Q. Were there any reports made by the Heinen people subsequent to after the repairs were made?

A. After the repairs were made, was there any more reports of backup?

Q. By Priscilla Heinen?

A. No.

Q. Were there any additional reports of sewer backups after the repairs were made by Sally Waller?

A. No.

Q. Can you describe what the circumstances were when Mr. Mulvain reported to you that he had a backup problem and when that occurred?

A. Yes. The night before we had a large amount of rain. I don't recall how much it was, but I was checking manholes to see if there was any bottlenecking in the manholes, and he was with me at the time.

And we checked three or four manholes, and he relayed a message that he may have sewage backup

in his basement. And at the time I was busy and because of -- in that whole area, I didn't -- I was busy and I was checking manholes, and he was the only one in that area that did have problems, and I didn't get down to investigate.

Q. Do you remember the date or the approximate date?

A. It was 6/25 of '98 to my recollection.

Q. And you also testified a reported water basement problem for Rhonda Wells; is that correct?

A. That was brought to -- through the office. At the time I was out of the office doing something else, and I had my backup helper I guess went and investigated that.

Q. And when did that occur?

A. Six of '99, sixth month of '99. I don't have a date here.

Q. And who is the person that did the investigating?

A. Marion Miller, he's a part-time public works -- he works for the village of Durand.

Q. So he made the investigation and you don't now of your own knowledge --

A. No, I don't.

Q. -- what it looked like; is that correct?

A. That's correct.

Q. Going back to the Exhibit 2 with the map with the red lines and the blue lines, the red lines you had testified indicated completed repairs or replacements?

A. Yes. There was a couple here discrepancies that weren't really repaired.

Q. With the exception of those two discrepancies, that's what the red lines indicated?

A. Yes. Yes.

Q. And that's what the situation was as of the date that you prepared that exhibit?

A. Yes, it was. At the time I repaired this, that was the situation.

Q. And you prepared that approximately when?

A. Approximately one month ago.

Q. And at that time, the blue lines were for future repairs; is that right?

A. Yes, they were.

Q. Since that time, have all of the blue lines been repaired or replaced?

A. They have been repaired and completed.

Q. So as of today with the exception of the

two red lines that you testified to that were really not repaired, all of them should be red lines?

A. Yes, they should.

Q. And when were, if you know, the actual sewer repairs or replacement completed?

A. It was I believe last week.

Q. And the only work that remains to be done is street repairs?

A. Clean up, ditch clean up, street repairs.

Q. In Plaintiff's Exhibit 8, which is the televised summary, in addition to those things that you testified, does it also contain numbers indicating priorities of those problems that were identified that needed to be repaired?

A. That's on Exhibit 8. It looks like there is a priority factor there, yes.

Q. If you'll take a look down the list, there's priorities ones, twos and threes. What's your understanding which is the most severe problem, ones, twos or threes?

A. The ones were the priorities.

Q. And if you know, were all or most of the number one priorities corrected?

A. I don't know.

Q. On your flow charts for effluent violations that you testified about, did those usually occur during the spring and the fall?

A. Yes, they do, spring, summer and fall.

Q. And is there any correlation between those violations and precipitation?

A. Yes, there is.

Q. And what is it?

A. It's an overabundance of precipitation.

Q. You also testified as to BOD and TSS levels?

A. Yes.

Q. And the dates and the number of times that there have been excursions or violations?

A. Yes.

Q. Has there ever been a time when there has been a violation as to both at the same time?

A. No.

Q. You had some testimony as to the amount of water going into the lagoon system and then going into the receiving streams being equal. Is there an evaporation factor?

A. Yes, there is.

Q. And what is that?

A. I don't know the factor.

Q. What would the effect be?

A. Today I had 120,000 going into the lagoon. I had 80,000 discharging out of the lagoon.

Q. So the amount being discharged out of the lagoon is not necessarily the same as the amount going into the lagoon; is that correct?

A. No.

Q. You had testified as to the discharge permit that had some expiration date that you thought was the end of July. The new permit has not yet been issued; is that correct?

A. No.

Q. Is it correct that the existing permit or the old permit continues to remain valid?

A. Yes.

Q. So that we're not operating without a permit?

A. We are not in no violation with the EPA whatsoever.

Q. The permit contains some limits regarding certain substances; is that right?

A. Yes.

Q. Do you know what substances there are

limits of?

A. Are we talking hydraulic?

Q. Yes. The concentration parameter?

A. Okay, concentration. Well, the monthly average for suspended solids is 37 and the monthly average for allowance on the CBODs is 25.

Q. Are there any other limits?

A. Pardon?

Q. Are there any other substances that contain limits? There was some reference -- well, let me just -- can you answer that question first?

A. Are there any other limits? There are on discharge, on effluent discharge. As far as concentration limits, I don't know.

Q. I'm talking about substances that are limited. There was some testimony as to nitrates. Is it correct that the permit does not contain any limit as to nitrates?

A. No. We do not -- that's not on the permit. The EPA does do that on their own separate, but there is no concentration limits on nitrates ammonias.

MR. GREENE: No further questions.

HEARING OFFICER KNITTLE: Mr. Larson, do you have redirect?

MR. LARSON: Yes, sir.

REDIRECT EXAMINATION

by Mr. Larson

Q. Now, with regard to the repairs that have been done, is it your testimony that there are basically two sets of repairs, one that was finished in 1997 and another was just finished last month or so?

A. Yes.

Q. Now, previously you testified that you cannot identify a specific reduction -- a specific amount of reduction in I and I as a result of these repairs; is that correct?

A. Because of the -- yes, that's correct.

Q. Now, your earlier testimony was that the highest effluent discharge from the period January 1st, 1997, to the date of the hearing today was April 23rd, 1.993 million gallons. Was that before or after some of these repairs had been done?

A. That was before.

Q. Now, April 1999 was after the 1997 repairs; is that correct?

A. Yes, it was.

Q. But it was before the 1999 repairs?

A. Yes.

Q. What effect, if any, if you know, would the 1999 repairs have had on the effluent discharge for that day if you know?

A. I don't understand what you're saying.

Q. Suppose that the repairs that were completed in 1999 had been completed on April 23rd, 1999, how, if you know, would the total discharge on that day have been affected if these repairs had been completed?

A. I don't know.

Q. So you can't tell whether or not the discharge on that day would have been less or more?

A. I'm not good at when it comes to looking ahead. The only way I could really tell is if it happened, everything was fixed and I was there now.

Q. Now, the evaporation factor in the lagoons, how, if you know, is that affected by the speed with which effluent goes through the system?

A. The only effect I know is hot, dry, sunny days.

Q. And on hot, dry, sunny days the evaporation factor is higher?

A. Yes.

Q. So do you know if on cloudy, rainy days the evaporation factor is the same or is it lower?

A. I don't know.

Q. Now, when the effluent going through the system is high, do you know what happens to BOD and TSS that is in the normal sewage effluent carrying along with the infiltrated effluent? Do you know what happens to that BOD and TSS in the system?

A. I assume it gets diluted.

Q. It gets diluted. Does it get carried out?

A. I don't know.

Q. Now, there are two ways of measuring BOD and TSS that have been discussed. One is hydraulic loading and the other is concentration; is that right?

A. Yes.

Q. What is the difference between the two?

A. I don't know.

Q. When you testified to the difference between hydraulic loading and concentration, what did you mean by that testimony?

A. I was basically talking about the concentration, and I got them switched around from hydraulic to concentration. There is a hydraulic on

the permit too, but I was putting them together.

Q. The hydraulic loading is the one that's indicated on the reports in Exhibit 7, isn't it?

A. And that's --

Q. Those reports.

A. Right here?

Q. Yes.

A. One is a concentration. I guess I don't -- I'm not sure if one is hydraulic or not. One is obviously the concentration.

MR. LARSON: Nothing further.

HEARING OFFICER KNITTLE: Mr. Greene, do you have any?

MR. GREENE: Nothing further.

HEARING OFFICER KNITTLE: Thank you, sir. You can step down.

Mr. Larson, do have another witness that we can squeeze in before lunch?

MR. LARSON: I don't have anybody that I can finish before lunch. I can get started with Mr. Toerber.

HEARING OFFICER KNITTLE: Sounds good.

MR. LARSON: Let me take a moment if I may and organize the exhibits.

HEARING OFFICER KNITTLE: Let's go off the record while he does that.

(Short interruption.)

HEARING OFFICER KNITTLE: Let's go back on the record.

MR. LARSON: We call Erwin Toerber.

HEARING OFFICER KNITTLE: Mr. Toerber, would you mind having a seat and swear him in, please.

ERWIN TOERBER,

having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

by Mr. Larson

Q. Would you state your name and address for the record, please?

A. Erwin Toerber, 150 North Stewart, Freeport, Illinois.

Q. And what is your place of employment?

A. Fehr-Graham & Associates.

Q. And what do you do there?

A. I am an owner and project engineer for that company.

Q. And how long have you been with

Fehr-Graham?

A. Twenty-six years.

Q. Prior to working for Fehr-Graham, did you have any engineering employment?

A. Yes. I worked for four years as the superintendent of treatment for the Freeport water and sewer commission.

Q. What's your educational background?

A. I have a Bachelor's of science in civil engineering from the University of Iowa and a Master's of science in environmental engineering from the same school.

Q. When did you obtain those degrees?

A. BS in 1966 and MS in 1969.

Q. And what did you do after you left Iowa in 1969?

A. Spent two years -- two and a half years with the U.S. Public Health Service as a sanitary engineer.

Q. And then you went to Freeport?

A. Yes.

Q. Are you familiar with the treatment and collection system of the Durand sewer system?

A. Yes.

Q. How did you have that familiarity?

A. Our company has been retained to do a number of projects for them. We were involved in the preparing the facility plan and the plans for the potential improvement for expansion of the plant, and we have been involved in all of the sewer repair projects that have been testified to already this morning as the design engineer.

Q. When you say your firm, is that primarily you or is there anybody else that has primary responsibility in your firm for these matters?

A. I have ultimate responsibility. We have staff engineers and field technicians that are participating, but I have ultimate responsibility.

Q. So it would be fair to say then that you're the principal civil engineer at Fehr-Graham with responsibility for the Durand sewer treatment plant?

A. Yes.

Q. Then you would be familiar with work that that's been done by other engineers in your firm with regard to this?

A. Yes.

Q. I'm going to ask you to take a look at what's previously been identified as Exhibit Number 1

and ask you if you've ever seen it before?

A. Yes.

Q. Could you tell the court what it is, please?

A. Yes. This is a document which we prepared. The bay sheet actually was taken from the Baxter Woodman original report just in the final system, but it was prepared first as part of the facility plan that was submitted to the EPA to identify the results of the television inspections that were done prior to us preparing this report in 1995 and to the keynotes, that is, the circled numbers each one responds or correlates to a specific type of item that was found in the television inspection.

Q. What's the television inspection?

A. It's placing a camera in the sewer line and running it from one manhole to the next, and there's a monitor, and it's recorded. So there's -- the operator and usually another individual will observe that, and if they come to something that is -- appears to be a problem, they stop, take a longer picture, so it's a televised recording of the interior of the pipe.

Q. And does this televised report result in a

videotape?

A. Yes.

Q. And what happens to those videotapes if you know?

A. The videotapes ultimately will be returned to the owner, in this case the village of Durand. We did -- in this case, we were not involved when the televising was being done, but we did then take the videotapes and review them.

There were written notes with those which we also got. Those were done by the video inspection company and so we reviewed both the tape and the notes.

Q. Now, based on your review of the tapes and the notes and your firm's knowledge and your personal knowledge of the condition of the Durand sewer system including the collection and the treatment systems, does the map identified as Exhibit 1 fairly represent the condition of the Durand sewer treatment plant at the time that the televised report was done?

A. The condition of the collection system, yes.

Q. It doesn't relate at all then to the treatment system?

A. No. That's just to show where the final interceptor connects to the plant.

Q. Now, it's my understanding then that your firm took the written notes and the videotape and from those indicated on that map each individual item that's identified by a number; is that correct?

A. Yes, that's correct.

Q. Now, based on that, do you believe that the numbers indicate places where problems existed or now exist in the Durand sewage treatment plant or system?

A. Yes.

Q. Now, with regard to Exhibit 2, would you take a look at that, please? Now, the base of Exhibit 2 is the same map that we just discussed in Exhibit 1; is that correct?

A. Yes.

Q. And Exhibit 2 contains marks. Are you familiar with those marks?

A. You're referring to the red and the yellow (sic) marks on there?

Q. Yes.

A. Yes.

Q. Do you know what those marks purport to represent?

A. Yes.

Q. Could you tell the hearing officer what those are?

A. Those are indicating the areas where we have done complete sewer line and manhole replacement in almost every case with pipes of larger size than was originally there. All of the original lines were eight inch.

Q. When you say we, who do you mean?

A. We prepared the plans and specifications, obtained the permit from the EPA, bid the contract out and then Rockford Blacktop and Fischer Excavating have been the two contractors that have done the actual construction work.

Q. Now, we would be Fehr-Graham then?

A. We is Fehr-Graham, yes.

Q. And because you're the person who's primarily responsible, you would have direct knowledge and your own personal inspection of these matters knowing what was actually done; is that correct?

A. Yes.

Q. In each and every case of all of the repairs that are identified on Exhibit 2, do you know

of your own personal and direct knowledge that the repairs were actually done?

A. Yes.

Q. And how did you come to that direct personal knowledge?

A. We had a full-time resident inspector on the job while all this work was being done, and he kept a daily log as well as some photo documentation of the work.

Q. And the basis of your knowledge then is this written log and the photograph documentation?

A. Beg your pardon?

Q. The basis of your knowledge then is this written log and the photograph documentation?

A. Yes.

Q. Now, physically did you, yourself, ever go to Durand and identify that any of the work or any of the other repairs that are identified as being done and that you've testified as being done on the map labeled Exhibit 2, did you personally ever go out and physically inspect with your own eyes any of that work that was done?

A. I was not there every day, but every week or every other week I would go out and spend time

with the inspector or he'd come back to the office to talk to me, so, yes, I was there on a periodic basis for all these projects.

Q. Would it be a fair statement then to say that your firm supervised this work?

A. No. The term supervision is not the correct term. We provided construction observation. We can't direct the contractor as to how he is to perform. We perform construction observation.

Q. Then your firm then performed construction observation with respect to the repairs that were to be done; is that correct?

A. Yes.

Q. With regard to the work that was done, did your firm prepare construction documents meaning elevations, site plans, specifications and other design documents that would relate to these individual repairs?

A. Yes.

Q. Now, did your firm ever update those reports based on the condition of the repairs as actually constructed?

A. Yes. We created what are termed construction record documents which are the plans

changed to show how the actual construction was performed.

Q. So if I were to refer to those as as-built drawings, would that be a fair --

A. Yes, the same thing.

Q. So there are records in your firm that relate to the condition of the system as it was built?

A. Yes.

Q. Do you know if the village of Durand has any of those records?

A. I believe we have transmitted copies of all of those, and I can't say absolutely they have every last one of them, but I think we transmitted all of them. I believe we transmitted all of them.

Q. So there would be documents in the possession and control in the village of Durand that would show the specific repairs that are identified on Exhibit 2 that would show as those repairs were actually built?

A. Yes.

Q. Directing your attention now to what's been previously labeled Exhibit 3, would you take a look at that, please?

A. Yes.

Q. Could you tell the hearing officer what that is?

A. Yes. It's a schematic diagram of the lagoon -- the Durand lagoon treatment system as it existed when we prepared the facility plan.

Q. Now, does that map accurately reflect the condition at that time if you know?

A. Yes.

Q. What's the basis of your knowledge?

A. We obtained construction record drawings from the two previous engineers that were involved Baxter Woodman and the other name escapes me, but we did -- from the village we got the original construction record drawings for cell three which was the original cell and then we got construction record drawings for the previous one, so we looked at all that. We also did topography, sent a crew out in the field, took topography. We took measurements and field verified it.

Q. Did you ever prepare -- did your firm ever prepare -- anybody under your control prepare a topographical map of the lagoon system in Durand if you know?

A. We prepared a site plan of that entire area as part of the plans for the proposed improvements, yes.

Q. Would that show the elevations?

A. Yes.

Q. Did you ever get a copy of that map to the village of Durand if you know?

A. Yes.

Q. So that map to your knowledge would have been in the possession and control of the village of Durand at the time this action commenced?

A. I believe so.

Q. Now, you testified that that map accurately reflects the condition of the treatment plant at a specific point in time in the past. What's different about the system now if you know?

A. The only things that I'm aware of that are different from when we originally did this is the modifications to lift station pumps. The main lift station, as was referred to, the pumps have been changed out to increase capacity.

The only other thing that I'm aware is that with consultation by me, Mike Sweet did put a new effluent flow meter at the effluent of the lagoon.

Q. And you heard Mr. Sweet testify earlier today, didn't you?

A. Yes.

Q. And that would be the V weir notch?

A. V-notch weir.

Q. And then there was also an automated or some kind of improved flow meter that was attached as well; is that correct?

A. Ultrasonic transducer that measures the water level behind the weir, yes.

Q. Now, that transducer is it in place today if you know?

A. To the best of my knowledge, yes.

Q. Is it functioning if you know?

A. As far as I know, yes.

Q. Mr. Sweet testified that there were times when that flow meter wasn't sufficient to measure the flow. Why would that be if you know?

A. Well, that automatic measuring device has a certain range that it's set to operate in, and you set it so that it can be accurate within the normal expected flow ranges. I think what he's talking about that it exceeded the range of that instrument as it was set.

Q. So that machine would have been calibrated to measure the normal expected flow of effluent from the plant, but it's not sufficient to measure the actual flow out of the plant; is that correct?

A. Well, he's able to determine that by manually measuring the level flowing over the weirs, just that device right now is set in a certain range.

Q. It's calibrated?

A. It could be adjusted, but the reason it's set in the range it is is then it becomes very -- you adjust it so that you can measure accurately the very high levels and you can't measure very accurately the low levels, so you have to make a choice. You pick the lower ranges or you pick the higher ranges.

Q. Now, with regard to the Durand sewage treatment plant, what's the function of the collections system?

A. To collect the wastewater from all the users, residential, commercial and to transport those to the treatment plant.

Q. And this is basically a gravity system, meaning that the flows by and large are brought to the treatment center by gravity rather than the forced mains; isn't that correct?

A. That's true although there are several lift stations in the system that do transmit the flow from one portion to another, but, yes, generally it's a gravity system.

Q. Mr. Sweet testified that on an ordinary basis, people in Durand generate about 100 gallons of effluent per day. Is that, to your knowledge, roughly an accurate figure?

A. That's the general rule of thumb for design. I can't say that that's exactly what the people in Durand generate, but that's a typical design number, yes.

Q. Do you have any reason to believe that the experience in Durand is different than that?

A. I don't think it would vary significantly, no.

Q. So then do you know how many residential and commercial users are hooked up to the Durand system of your own direct knowledge?

A. I don't have that number in my head exactly right now. We are in the process of redoing that and I think the total -- I have to say I do not know the exact number of connections at this point. I don't know.

Q. Could you give me a number of connections to the nearest hundred?

A. It's somewhere in the neighborhood of 500.

Q. So if you have 500 users and you indicated roughly 100 gallons per user, that would be the way that you would calculate for design purposes the necessary capacity of this system?

A. Well, all the users aren't residential, some of them are commercial and they'll have different flows. It's an approximation. It's not exact.

Q. So there really isn't any one rule of thumb that can apply across the board?

A. Not across the board, no, not for commercial because it can range from very low to quite high.

Q. What does the ordinary material collected and brought to the treatment plant through the collection system consist of?

A. It's sanitary wastewater, discharge from all the users of wastewater.

Q. And that would be -- the wastewater then in the ordinary course would be treated in the lagoon system at the treatment plant; is that correct?

A. Yes.

Q. Do you have any familiarity with the actual flows through the Durand treatment plant?

A. Yes, I reviewed the reports.

Q. You heard Mr. Sweet testify that the first six months of 1999 the average per day inflow into the system was roughly 306 thousand gallons. Does that strike you as being roughly correct?

A. Yes.

Q. Is that the amount of flow through the system that you would expect to be generated by the users of this system as sanitary sewage?

A. Well, that number is a little higher than I would anticipate for strictly dry weather flow.

Q. Now, when you say strictly dry weather flow, is there another kind of flow?

A. There's flow from the I and I sources that we talked about and that's surface waters particularly from rain fall getting into the system or subsurface waters to infiltration getting into the system.

Q. With regard to subsurface water, how does subsurface water get into the system?

A. There has to be openings, breaks, cracks,

open joints, some kind of break or physical damage to the collection system.

Q. Now, most of that that gets in through those breaks, would that be rain water that's coming down through the earth and then being somehow collected by the system?

A. It's not quite that simple. There can be -- surface water conveyance items, storm sewers, ditches that carry storm water, there may be some kind of a direct connection in some cases that will get surface water into the sewer system.

Q. Are you aware of any such connections in the Durand system?

A. I'm not aware of any specific single point connections like that, no.

Q. Is there anything in the testimony that you heard from Mr. Sweet or your own personal knowledge and experience that would lead you to believe that there is such a connection somewhere that you don't know about?

A. I think there's a potential that there may be, yes.

Q. Now, what about subsurface water that's there in the form of the water tank? Does any of

that water get into the Durand system if you know?

A. Yes.

Q. How would that get into the system?

A. That can enter into the main lines, as I said, if there are open joints, if there are cracks, if a manhole has a bad seal. It can also get in from the services from the users, so if the service itself, that is, the line coming from the property to the main line has the same kind of physical problems. Those are the ways that infiltration enters the system.

Q. Is there any possibility based on the Durand configuration of the Durand plant as you know it at this time that the Durand plant is pumping water directly out of the water table in Durand?

A. Well, that's what infiltration is and where there are -- if the water table is above the level of the pipes and the pipes have breaks, then there will be some water flowing in there.

Q. Do you know of your personal knowledge whether there are any places in the Durand system where the water table is above the level of the sewer collection system where there are breaks?

A. I don't know what the water table is at

this point. It varies. The only thing I could express an opinion about is that when we've excavated for the sewers, we have not found the water table to be quite as high as was really indicated before any of the work was started, but at times I am sure that the water table does get above the lines.

Q. Are you familiar with the NPDES permit that was in effect for Durand and continues in effect while the new permit is being processed?

A. Yes.

Q. Now, it's your testimony that then the existing NPDES permit continues in effect. What's your basis for that statement?

A. That's my experience from dealing with IEPA and being told by both the permit section in Springfield and the regional office that if they do not get a new permit issued by the time of the expiration, the current permit conditions remain in effect until the new permit is issued.

Q. And 190,000 gallons per day is the ordinary level of effluent permitted under the Durand NPDES; is that correct?

A. That is the current design average effluent flow, yes.

Q. Do you expect based on what you know about the process of issuing a new permit, that process that's underway right now, whether or not that limit will be changed when the new permit is issued?

A. I would anticipate not.

Q. Now, if one anticipates growth in the village of Durand from the subdivisions known as Twin Creeks and Otter Creek Phase 3, there will be substantial increase in the number of users to the Durand system; is that your understanding?

A. Yes.

Q. And in the facility report that you prepared in 1995, you made certain projections about future growth and population in Durand, didn't you?

A. Yes.

Q. Would you tell the hearing officer basically what those projections were?

A. May I refer to the --

Q. Let the record show that Mr. Toerber is pulling out a document. Is that the facility plan?

A. This is the facility plan that is dated September 1995.

Q. And he's using that document to refresh his memory. I don't anticipate marking that as an

exhibit.

A. We projected at that time -- we projected this over a 20 year planning period and we used the Otter Creek and Twin Creeks tentative plats as they existed at that point in time.

If you totalled all of the potential lots and we also included 50 potential future commercial, we came up with an additional 1635 population equivalence or basically additional people.

Q. How many additional hookups would that result in if you know?

A. If would be -- let's see. It's about potentially 400 connections.

Q. Is there any reason for you to believe that these new population equivalence would not generate sanitary sewage at the rate of roughly 100 gallons per day?

A. No.

Q. So you would anticipate then that an additional 1635 people would generate an additional 163,500 gallons of effluent per day?

A. Yes.

Q. And given an existing ordinary limit of 190,000 and existing levels of the permit of 190,000,

such discharges would be contrary to the existing provisions of the permit; is that correct?

A. No.

Q. How would it not be?

A. The process by which the EPA evaluates each individual permit connection is to look at the three low flow months for the preceding year and to take that hydraulic effluent flow and subtract it from the rated capacity.

And therefore, it is typically not as high a number as would be anticipated, so at this point in time, only about 50 percent of the rated capacity is taken up by the process by which they determine available capacity for new connections.

Q. So it's possible then that these 1635 population equivalence could discharge sanitary sewage into the Durand system and the effluent discharge would not exceed 190,000 gallons per day on a regular basis?

A. It's possible. I would qualify that by saying that that is very, very close to the full plan capacity, and in fact, that's why in 1995 we started looking at what should or what could be done to improve or increase the plan treatment capacity.

Q. The facility plan that you created in 1995, what was the -- what facility changes were you recommending at that time?

A. Basically, we proposed increasing the lagoon cell sizes, changing the blowers, adding additional blower capacity, adding a new force main to increase the pumping capacity and all the associated piping to interconnect those cells because we were going to change the arrangement of the cells to allow us to have a first cell system that would have a larger capacity.

Q. Was that facility plan based on needs that you projected as a result of the additional population coming or as a result of these two separate issues?

A. Yes.

Q. Now, there are times in the system as you presently constitute when flow exceeds 96 gallons per day, and I guess we've established that and that that's due primarily to infiltration inflow.

Directing your attention to the repairs that have been done and identified on Exhibit 2, based on your previous testimony, what effect, if any, would those repairs have on the inflow and

infiltration into the system?

A. Everywhere that these repairs are being done, there are complete repair. I mean, we're replacing the entire system, and they're being inspected so that in the areas where we've done the repair, all of the open joints, cracked pipes, any of the sources where extraneous waters, that is, infiltration inflow, if you will, that come in will be eliminated. So it's going to have a positive effect, that is, it's going to reduce the amount that can enter the system in those areas.

Q. And now the majority of these repairs were done in 1997; isn't that correct?

A. No. Again, if I could refer to my notes. This last project that we did was, the 1999 project --

Q. Let the record show that Mr. Toerber is now referring to handwritten notes again which I do not intend to mark as an exhibit, but he's using those notes to refresh his memory.

A. With the completion of the 1999 project, we will have installed approximately 7,000 lineal feet of new sewer. The 1999 project is 4,273 feet of that total, so it's over half. So basically in the '97

work, we did less than half of what has been proposed was completed.

Q. So roughly 2800 lineal feet?

A. Yes.

Q. Based on the work that was done in 1997, does it surprise you that the highest inflow into the system since January 1st, 1997, took place in April of 1999?

A. Not particularly, no.

Q. Wouldn't you have expected that the 2800 feet -- lineal feet of repair that was done in 1997 would have reduced somewhat the infiltration inflow?

A. It's reducing the infiltration in the area where it was done. It's also doing another thing. Those pipes are larger and have more carrying capacity and the areas upstream of where it was done were still contributing.

So before where we had eight inch lines, there was a lot of restriction. The water was held back in the system and it didn't get to the plant where we measured.

So it's a combination of things. I really feel that in the areas -- and I have not quantified this, understand, and we have not put meters in the

system and we have not gone out and quantified specific locations. But I'm actually not surprised because what we've done is increase the carrying capacity of the interceptors that leave to the plant and therefore, if there's extraneous waters getting upstream of that, the flow is probably going to be higher because the pipes are now carrying them to the plant quicker.

Q. Would it be logical then to expect that as a result of the 1999 repairs that have been done which would have the same effect of increasing the carrying capacity of the collection system that flows into the plant as a result might be even higher than they were in April of 1999?

A. Well, I don't think so because we're addressing further and further out into the collection system and reducing more and more, in fact, over half of the work we've done the sources where water can enter, so I wouldn't anticipate that that -- even though there's better carrying capacity, I wouldn't anticipate we're going to have -- we would not have higher I and I.

Q. Now, you testified previously that you believe that there might possibly be a connection to

some other lateral or ditch that might be carrying storm water runoff. Have you run across anything like that in your investigation of the system?

A. No, we have not.

Q. So if, in fact, such connection exists, it would be outside the area that's already been repaired?

A. I think that's a fair statement.

Q. I'm going to direct your attention now to what's previously been labeled Exhibit Number 4 and ask you if you've ever seen that before.

A. Okay. Yes.

Q. Could you tell the court what it is, please?

A. These are calculations that I did personally in response to questions from the board, particularly the water and sewer committee and also Dave Mulvain, who was involved, with regard to carrying capacities of the lines at the intersection of Mulvain and 4th. That's really the point where everything comes together and goes to the plant.

Q. That would be manhole 2 and 2A?

A. Yes.

MR. LARSON: Your Honor, I'm going to be at

least another hour, maybe as much as an hour and a half with this witness. I'm at a point now where it might be good for us to break.

HEARING OFFICER KNITTLE: Mr. Greene?

MR. GREENE: That's fine with me.

HEARING OFFICER KNITTLE: Let's take a one hour lunch recess.

(Recess taken.)

HEARING OFFICER KNITTLE: We're back on the record after a lunch recess. Mr. Toerber, you're still on the stand and I remind you you're still under oath.

THE WITNESS: Yes.

HEARING OFFICER KNITTLE: Mr. Larson, you can proceed when you're ready.

MR. LARSON: Thank you, sir.

BY MR. LARSON:

Q. Returning your attention to Exhibit 4. These are calculations that you performed; is that correct?

A. Yes.

Q. How did you come to perform them?

A. At the request of the water and sewer committee of the village.

Q. What do they show?

A. Well, they show the carrying capacities of the lines that flow directly to the lift stations of the plant.

Q. How does the capacity of those lines relate to the capacity of the pumps?

A. Let me look at this for a moment. They do show that -- and this is assuming a slight surcharge, that is, a buildup in the lines that all of the lines combined have a flow of 3.71 MGD and that is slightly above the total pumping capacity of the pumps at the plant.

Q. What's 3.71 MGD?

A. Million gallons per day, that would be equivalent to 2,576 gallons per minute.

Q. 2,576 gallons per minute?

A. Right.

Q. The pumping capacity is how much?

A. I believe at this point it's 1800 gallons per minute.

Q. So if the capacity of the lines leading to the plant is in excess of the capacity of the pumps, what happens when the lines coming to the plant are full or surcharge and the water coming into the plant

is greater than the ability of the pumps to remove them?

A. Then the water will start to backup as they say surcharge in the lines and it will fill the lines.

Q. It will fill the lines back all the way through the collection system?

A. It will reach an equilibrium. Depending upon the pumping rate and the flow coming in, it will backup to some point where that head is forcing that much water through, so depending upon the total influent flows to all the lines, it will backup to some point in the system.

Q. Is it possible that when it backs up in the system, it could backup to residential sewer and individual houses?

A. Certainly, it's possible, yes.

Q. Is there any way to calculate based on the figures that you have available to you there or any other figures that you have available to you today at what level that would happen?

A. At what flow rate are you asking me?

Q. At what flow rate would cause a backup into residential sewers?

A. Well, I can't be specific about a particular household. The services and the homes are at different elevations. It would impact the lower areas first, obviously, and those homes with basements.

Q. Now, to generate the kind of flow that we're talking about where the lines coming to the plant are filled to their capacity, what impact, if any, if you know, would that have on the water table in the village?

A. Let's see. Can you ask that again?

Q. We have a situation where the influent lines to the pumping plant are at full capacity.

A. Okay.

Q. Which probably means that it's raining and it has been for a while. And the lines going to the plant are surcharging, are backing up, what impact, if any, would that set of conditions have on the water table in the village?

A. The water table is a level, a subsurface level that reaches far beyond the boundaries of the village and the short-term impact of pumps not quite keeping up with influent flow in my opinion would have minimal effect on the water table.

The water table is a function of the infiltration of water into the subsurface from the entire area and also tied into the streams in the area and typically tends to fluctuate somewhat with stream level, so short-term and even -- when I say short-term, I mean days or weeks of higher than normal levels in a sanitary sewer would not have major impact on the water table in my opinion.

Q. Let me ask you this then. Did the installation of the sanitary sewer in Durand have any impact on the water table overall in the village?

A. You mean the original sewer system?

Q. Yes.

A. There again it's the reverse. I think it can certainly. Infiltration is permeation of small portions of that water table into the sewer, and if it was flowing in fast enough, you might have a very isolated draw down, but it's because it's being served or filled from such a large area it doesn't typically. What happens with a collection system is not the driving force that makes the subsurface water table rise or fall.

Q. So the water table now is the same -- at the same level as the water table would have been say

in 1966 before this system was --

A. Well, it changes somewhat seasonally, but it's not an immediate change, so that I can't say that the water table today on the average is exactly the same as it was in 1960. I don't think it has changed a lot.

Q. It might be lower now than it was then?

A. I don't know. I don't know the answer to that.

Q. Well, then can you give me an indication of what would happen to the water table in the village of Durand if all infiltration and inflow above and beyond sanitary waste in the village was eliminated by some repair to the system, would that have an effect on the water table in the village?

A. It is possible, and if I could just take a moment. There are so many sources of ways for subsurface water to get into a collection system. It's very difficult to eliminate all those.

I am aware of developed areas, not isolated, but developed areas where a conscious decision was made to replace everything, that is, clear back to the house and all the way out to the collection system and make everything tight so that

there could be no way that any subsurface water can get in anywhere.

And some of the literature that I've read indicates that when that was done then there was an isolated -- I'm sorry, not isolated, but a localized impact on the water table and it did rise. It rose a foot or two and basically on the average stayed higher than it was before.

Q. Is that condition possible in Durand in your opinion?

A. Practically, no.

Q. Is that because the system cannot be made tight?

A. It cannot cost effectively be made absolutely tight.

Q. So there basically then is no condition that you can foresee in Durand where the infiltration and inflow problem will be completely handled by the repairs either these contemplated or other repairs that you can think of?

A. I'm not aware of not only Durand -- I'm not aware of any community where I and I has been absolutely totally eliminated in all cases.

Q. But in this case specifically with regard

to Durand, are the repairs that are being contemplated, are those to such an extent that they will materially impact the amount of inflow into the system?

A. I believe so.

Q. And what's the basis of that opinion?

A. Well, as I said before, all of the areas that we've done repairs, we are eliminating all those openings, if you will, into that system. And every one that's eliminated -- and if you do it over a wide enough area, it's going to reduce the amount of that subsurface water that can flow into the system.

Q. Directing your attention back to Exhibit Number 4, with regard to the outflow from the pumps.

A. Yes.

Q. The outflow system from the main and emergency pumps, does that pose any constriction on the amount of flow that can be pumped out of the pipes -- pumped out of the pumps?

A. Are you asking me do the pipes leaving the pumps cause a restriction?

Q. Yes.

A. The force main or the pipe -- the pipes that leave both the main pumps and the standby pumps

control the amount that the pump can put out, and the size determines the point on the pump curve that the pump is going to operate at, the size and the length.

Q. So is it a fair statement that the pipes run -- the force mains leaving the main pumps and emergency pumps cannot handle the full flow which could theoretically be put on by the pumps if they were operating at full capacity?

A. Well, the pumps were designed for the force mains that were put in there to operate at the certain design point. They have a capability to pump more up to a point, but you can only make the pipe so large without having to basically replace the whole pump, that is, the pump and the motor because as you make the pipes larger, it draws more horsepower and ultimately you will overload the motors. So it's a design situation. They are right now operating within the original design range that the engineers had designed it originally set it for.

Q. Now, that design range, did that take into account the capacity of the lagoons on the other side?

A. Yes.

Q. Is it possible for the pumps to pump out

more effluent than can be affectively treated by the lagoons on the other side?

A. Not in the situation they're in now, and furthermore, they could be -- the pump capacity could be increased further and it would reduce the detention time in the lagoons, but would typically not degrade the effluent quality until you reach some several multiples of what they're doing now.

Q. So the effluent that is coming out of the plant now that exceeds the permitted level could be significantly increased with the plans as currently designed?

A. By that limit you mean the hydraulic limit or the flow limit?

Q. Right, the permitted level, the upper level of the permit.

A. The lagoons as they exist now could tolerate a higher hydraulic loading, yes.

Q. And what is the average -- what is the average length of stay of effluent in the lagoons?

A. I would have to -- you're asking about the detention time in each lagoon. I would have to calculate that. I do not have that readily available to me. I can get a calculator and do it or if you'd

like to have me --

Q. Do you have a rough idea? Is it days, hours?

A. It's days. Typically, I believe that it's in the range of about seven days in the first two cells, and it would be longer than that probably ten to 15 days in the second or the third cell or the final cell is very large. And it's certainly a number of days typically.

Q. There's a period of time from April 23rd, 1999, to May 8th, 1999, during that time each day the effluent from the plant into the receiving stream exceeded permitted levels.

Based on what you know about the system and based on the testimony that you've heard today, do you have any -- do you have an estimate of how long that effluent would have remained in the detention plant?

A. You're asking the same thing again. I'd have to look at the volumes and the flows and I could calculate that. Since we're talking about multiples of in the neighborhood of ten, it could certainly reduce it down to one or two days in each cell, the first cells and maybe five or six days in the third

cell. Those are very rough numbers. If you need precise numbers, if you want, I would have to calculate those for you.

Q. Do you know the capacity of the lagoons, the total capacity of the lagoons?

A. Well, yes. That's what's shown in Exhibit 3 here. We show each one. Cell number one is 2.68 million gallons. Cell number two is 1.19 million gallons and cell number three is 10.49 million gallons.

So based on that, I can give you a better answer. For example, if we were running at that elevated flow rate of one plus million gallons per day, then the detention time in the third cell would drop down to something less than ten days.

Q. The impact of running over one period of time with -- during a period like the period from April 23rd to May 8th would be to decrease the time that effluent spends in the treatment lagoons; is that correct?

A. That's correct.

Q. Do you know of your own personal knowledge and experience whether or not any effluent has ever been released from the Durand sewage treatment plant

that hasn't been completely treated?

A. No. I'm not aware of that. If you -- no, I'm not aware of it not being treated.

Q. Would the fact that the BOD and TSS levels exceed the permitted levels, would that be an indication that the effluent hadn't been completely treated?

A. Well, the term completely treated is I guess a little vague in that what I'm saying is the flow normally does pass through all the cells and is not restricted from doing so. The variation of the detention time can have an impact on the degree of treatment.

However, I did take a very close look at the high flow days that have been referred to here and also looked at the times when there were excursions from BOD and TSS, and there's no correlation there. And the reason is the lagoon system is very forgiving in that it can tolerate over relatively long time periods higher than normal flows and still provide adequate treatment.

This system has a rock filter at the end of it which is designed to try to take out the solids that are remaining.

Q. But that's primarily a process of dilution, isn't it?

A. Not entirely. It's still doing -- what the lagoons are doing is breaking down the organics with algae and with bacteria, and those still reside in there, and they're still active even at a shorter detention time. And depending upon the concentration that it comes in at, there's less intense activity required to do the biological treatment.

So I'm not saying that if you overload a lagoon hydraulically for long time periods that it's good for it, but I'm saying that most lagoon systems do see from time to time flows that are several multiples of the design average flow, and they normally put out an effluent that meets the permit requirements.

Durand is a pretty good example of that in where the excursions occurred is not where we had the high flows. They're at lower flows and there are a number of reasons that can occur. There's just not a direct correlation between real high flows and BOD and TSS violations.

Q. What, if you know, is the combined holding capacity of the collection system, in other words,

the system outside the treatment plant?

A. I don't know. I don't know. All of the pipe -- the volume of all the pipes, I don't know that.

Q. When a break occurs in the collection system such as the broken line at 395 feet south of manhole 26M, specifically what's the impact of a break in the line at a place like that? You might want to refer to Exhibit Number 1 and locate the specific break I'm talking about.

A. Which one are you asking for?

Q. We're looking at 395 feet south of manhole 26M.

A. Is that keynote one here? This would be south. There are four items that were identified all south of manhole 26M.

Q. It looks like specifically this one right here?

A. Okay. All right.

Q. What would the specific effect of a break like that in the line be?

A. It's an opening. I mean, it's created an opening in the line. It's a conduit for infiltration. If the ground water is high, it's a

point for the ground water to get in. If the break is severe enough and something has fallen into the pipe, it might cause a restriction, but it depends upon the severity of it.

Q. And to your knowledge, is that one of the breaks that's been repaired or is planned to be repaired based on the plans that you drafted?

A. Again, can I refer to my notes?

Q. Please feel free.

HEARING OFFICER KNITTLE: And also if you could identify the specific break you're talking about. I don't think I got that.

MR. LARSON: Let me just identify it specifically for the record. It has no number. It's on the second page of Exhibit 8. It is -- I'm sorry. It's on the first page of Exhibit 8. It is seventh from the top.

HEARING OFFICER KNITTLE: Thank you.

BY THE WITNESS:

A. The one you're referring to is that a priority one item? Okay. Those in this area on Summit Street all of those -- that's an area that has not been -- we have not done repair in that area.

BY MR. LARSON:

Q. So that break then would not have been repaired?

A. That's right.

Q. So that would be a potential source of continued infiltration into the system?

A. It would be, yes.

Q. And it could potentially be the source of an obstruction in the system?

A. Possibly.

Q. If there was a significant population growth in Durand in the future, is the capacity of the present plant sufficient to handle the loading which might result?

And let me put that question in context because you've said two things about that so far today. One is is that you prepared a facility plan in 1995 to specifically upgrade and improve the capacity of the plant to handle basically the additional load on the plant, and I'm using load in a generic term not hydraulic loading, the load on the plant in -- from Otter Creek Phase 3 and Twin Creeks, you suggested at that point based on the facility plan that significant upgrades be made in the system.

And then also when I asked you that

question later on you said that it might be possible for the existing plant without modification to handle the increase flow. So I guess my question is if in 1995 you felt that it was necessary to increase the capacity of the sewage treatment plant to handle this additional load, how is it possible now that such an increase in capacity of the plant is no longer necessary?

A. The projection was a 20-year projection including the known subdivisions, but assuming that growth would continue at that same rate over and beyond the known tentative plat of subdivisions. The actual minimum design that we recommended in that facility was 3500 population. And that's different than the loading that I would project right now from Otter Creek and Twin Creeks.

Q. And that loading again as you testified before probably would be at the rate of 100 gallons per day per additional resident?

A. Yes.

Q. And in just doing the math 25, 2600 people that's 260,000 gallons per day in the permitted level on an ordinary flow basis for -- on the existing NPDES permit would be 190,000, wouldn't that result

in a violation?

A. Well, I guess I'm not quite sure what you're saying.

Q. I guess --

A. The projection for those two subdivisions was 1635 people, 1635 PE. All I said before is that as those subdivisions grow, it isn't necessarily true that their contributions would overload the plant, but what I'm saying is that the way those -- as the plats are developed, the way they are permitted is to look at the three low flow months of the previous year and compare that loading against the remaining available capacity.

Q. Let me backup. Maybe that's where the confusion is because what I'm looking at is what the permit level on effluent from the plant is at 190,000 gallons per day. Right now, with 1150 or so, we're looking at 120,000 gallons per day based on Mr. Sweet's testimony.

If we add 100 gallons per day for 1635 people or PE, that would bring the level up to roughly 280, 290,000 gallons per day just doing the simple math. The ordinary flow permit level on the plant at the present time and as testimony has been

that that isn't going to be changed in the next five years based on the permit that's being applied for now is going to remain at a level of 190,000 gallons per day.

My question is when we have an ordinary permitted level of 190,000 and effluent levels of 280,000 gallons per day, won't that put the village in a situation of perpetual violation of the permit?

A. If the loadings from those subdivisions reach that level, that would be true. The other thing that is -- when we did this projection, we used the number which is basically mandated by EPA when you do a projection that is three and a half people per household.

In actuality, in today's world as households are built and occupied, they usually don't run that high. They run more like two to two and a half, so what the reality is is that you file for a permit and it has 100 homes in it and you project three and a half people per home. When it's actually built and you start to experience the flow from those homes, it usually -- in a new system that's tight, it usually is not as high as what is projected.

So I'm not trying to weasel out of

anything. I'm saying when we do our projection for designing a new plant, we try to be conservative and we also use the numbers we have to from the standpoint of the EPA, so the three and a half -- you're getting into detailed calculations.

All I'm saying is that it's possible for these subdivisions to develop to some point without overloading the plant. I'm not saying that when they're totally built out that at some point in that scenario it would not be advisable to expand the capacity of the plant. We suggested it. We recommended that that be done in 1995.

Q. And so that would still be your recommendation today?

A. Yes, it would be.

Q. Is there anything -- has there been anything done to the system in terms of permanence to the collection system or anything else that you're aware of that's going to effect the ability of the system to handle BOD amount TSS?

A. At this point in time, no. There hasn't been any significant improvements. I mean, all that is the plant. The collection system doesn't remove any BOD or TSS. It just transports it to the plant

basically. So I'm not aware of anything significant that's been done at this point at the plant that would enhance the improvement or removal of much BOD and TSS.

Q. I notice that there's a chlorination cell attached to the sewage treatment plant at the present time?

A. Uh-huh.

Q. And that's not used; is that correct?

A. That's correct.

Q. Is there any plan to your knowledge to modify the existing permit to require or allow the use of that chlorination plant?

A. No. The village applied for and received a disinfection exemption, and what was done was to do evaluation of the receiving stream and demonstrate that it's able to assimilate any fecal coliform that's discharged without having a detrimental effect on the stream.

That's a program that's been established by IEPA and a lot of the lagoon systems on smaller plants have been able to receive a year-round disinfection exemption, so they're required to chlorinate them.

Q. As the loading of the plant increases with additional population, do you foresee any situation where that disinfectant exemption might be lost?

A. I don't believe it will, no.

Q. What do you base that opinion on?

A. Well, that's based on the fact that one of the things that we had to do in applying for the permit because we did go through the process of getting the permit for construction of improvements to the plant and one of the things we had to do was update that disinfection exemption for that level and that was to a level of 5,000 PE. And that's the largest lagoon that you can build, and that was reviewed and determined to be appropriate.

Q. Now, without going into too much detail because you know I realize that we're dealing with plants that haven't been built, but those plants did involve construction of additional cells and vastly increasing the size of finishing the lagoon, right?

A. Yeah, the cell size was going to increase, yes.

Q. Now, would your opinion with regard to the disinfectant exemption change if the cell size were not changed?

A. No. I don't think that -- there's nothing -- the only thing that is happening here is that bacteria, potentially pathogens, but the measuring bacteria is fecal coliform can enter the stream, and the numbers were run at 5,000 PE or 500,000 gallons per day, if you will.

Therefore, what we're saying is that discharging levels of those kinds of fecal coliform in the stream, the stream can assimilate those before it reaches anything down stream that that would have a negative impact on. And that really means where it can come in contact, human contact, parks, recreation areas, that sort of thing. So that particular part of the treatment system I wouldn't see being impacted by increased flows.

Q. When a sewer backs up into a residence --

MR. GREENE: I'm sorry. I didn't hear what you said.

BY MR. LARSON:

Q. When a sewer backs up into a residence, okay, the material that's received in the residence, what does it consist of generally?

A. It's sewage. That's what's in the line.

Q. When the -- and that would contain

basically all the materials, the BOD, the TSS, all the things that are in the sewage that's going to be treated by the plant?

A. It depends -- I mean, at some level, yes.

Q. And it's also going to contain storm water, isn't it?

A. Not necessarily storm water unless storm water has entered the system.

Q. So when there is a sewage backup in the system, what impact are those materials in the sewage backup going to have on the residents in the home if you know?

A. Well, that's certainly not a good situation. The whole point of our collection system and treatment is to carry that away and not let it come back into the basement. The material can cause water damage, if you have a carpet or anything that's susceptible to water damage and can certainly -- that material has human waste and can have organisms that can be detrimental to the health of the individuals.

Q. As a matter of fact, the facility plan that you've been discussing, there are photographs in the front of it that show basements in Durand with sewage effluent backed up into it?

A. That document was not the facility plan, but it was the grant application that we made to the Department of Commerce and Community Affairs.

Q. I'm going to hand you a document which has been labeled as Exhibit 9 and ask you to identify that, please.

A. Yes. This is the grant application.

Q. Now, with regard to the grant application, there are photographs in the beginning of that grant application that show sewage backup in residences in Durand; isn't that correct?

A. Yes, there are. Yes.

Q. Now, the DCCA Grant that was applied for -- DCCA being the Department of Commerce and Community Affairs in the state of Illinois?

A. Correct.

Q. The DCCA Grant that that application was prepared for do you know what happened to that application?

A. Yes. The first pass around, that application was denied, but the village was given the opportunity to leave their name on the list for the next round, and in the next round, that money, $400,000 was awarded to the village.

Q. And that $400,000 is part of what's being used to complete the repairs in the Durand system?

A. Yes. That money is all going towards the 1999 construction project.

Q. Does that cover the entire cost of the 1999 construction project?

A. No, it doesn't.

Q. What percentage, if you know, of the cost of that project is being paid by the taxpayers of Durand?

A. Just -- actually 25 -- in fact, exactly 25 percent.

Q. So the whole cost of the project is roughly $500,000?

A. Yes, roughly 500.

Q. And $100,000 is being paid by the taxpayers of Durand?

A. Approximately, yes.

MR. LARSON: I have nothing further of this witness. Thank you.

HEARING OFFICER KNITTLE: Mr. Greene, do you have cross-examination?

MR. GREENE: No. I don't have any questions.

HEARING OFFICER KNITTLE: Sir, you can step down. Thank you very much for your time.

Mr. Larson, do you want to call another witness at this time, or do you want to take a recess?

MR. LARSON: If the court wants to take a recess. I have one more witness today. It's going to take about an hour.

HEARING OFFICER KNITTLE: Yeah, let's take a ten minute recess.

(Recess taken.)

MR. LARSON: At this point I'd like to move the admission of Exhibits 1 through 9.

HEARING OFFICER KNITTLE: Let's take them one by one.

Do you have any objection to Exhibit Number 1, Mr. Greene?

MR. GREENE: No.

HEARING OFFICER KNITTLE: Number 1 will be admitted. Exhibit Number 2?

MR. GREENE: No.

HEARING OFFICER KNITTLE: That's admitted. Exhibit Number 3?

MR. GREENE: Which one was 3?

HEARING OFFICER KNITTLE: The schematic of the treatment facility.

MR. GREENE: No.

HEARING OFFICER KNITTLE: That's admitted. Exhibit Number 4 were some notes by Mr. Toerber.

MR. GREENE: No objection.

HEARING OFFICER KNITTLE: That will be admitted. Exhibit 5?

MR. GREENE: I would just ask Mr. Larson is this a complete set of all of the copies that --

MR. LARSON: It's a complete set.

MR. GREENE: No objection.

HEARING OFFICER KNITTLE: That will be admitted. Exhibit 6?

MR. GREENE: Same question.

MR. LARSON: Same answer.

MR. GREENE: No objection.

HEARING OFFICER KNITTLE: Admitted. Exhibit 7, the DMR reports?

MR. GREENE: Same question.

MR. LARSON: Same answer.

MR. GREENE: No objection.

HEARING OFFICER KNITTLE: That, too, will be admitted.

HEARING OFFICER KNITTLE: Exhibit Number 8?

MR. GREENE: No objection.

HEARING OFFICER KNITTLE: Admitted. And Exhibit 9 which I don't have?

MR. LARSON: That's the DCCA Grant.

HEARING OFFICER KNITTLE: It's a grant application?

MR. LARSON: Yes. It's the thick one.

HEARING OFFICER KNITTLE: I hadn't written it on my exhibit list yet.

MR. GREENE: I have no objection.

HEARING OFFICER KNITTLE: That will be admitted as well.

MR. LARSON: I call David Mulvain.

HEARING OFFICER KNITTLE: Mr. Mulvain, you can stay there if you want, if you feel more comfortable. Any objection to that?

MR. GREENE: I'd prefer so I could at least get a side view of his face.

HEARING OFFICER KNITTLE: Mr. Mulvain, if you will then.

Could you swear him in, please?

DAVID MULVAIN,

having been first duly sworn, was examined and

testified as follows:

DIRECT EXAMINATION

HEARING OFFICER KNITTLE: It's your witness, Mr. Larson.

BY MR. LARSON:

Q. Would you state your name and residence address, please?

A. My name is David Mulvain. I live at 410 Laona Street in Durand, Illinois.

Q. What's your current occupation?

A. I'm a Shaklee distributor and a nutritional consultant.

Q. And what's your educational background?

A. I have about 60 hours in engineering at the University of Illinois. I have a BS and a Masters from Northern Illinois in dietetics and nutrition and a few scattered hours at various universities in miscellaneous things.

Q. Do you currently hold elected office?

A. Yes, I do.

Q. What office is that?

A. I'm trustee in the village of Durand.

Q. And how long have you been a trustee of the village of Durand?

A. We're sworn in in May of 1997.

Q. What knowledge do you have concerning the capabilities and capacity of the Durand sewage treatment system?

A. I have two file boxes full of information on the system. I feel that I understand it pretty well.

Q. And how did you come by that knowledge?

A. Well, the information is information that's been made available through the village through Fehr-Graham, through Erwin Toerber and, of course, I have talked extensively with Mike Sweet, Ken Gibler who's here. I talked with Mr. Toerber about the problem and other engineers from other agencies and anybody that I can find that knows anything about it.

Q. Over what period of time have you engaged in this process of obtaining knowledge?

A. Probably started in late 1995 early '96. It really got pretty intense late 1996.

Q. That was before you held elective office. What led you to make these investigations at that time?

A. I think the first thing -- there's so many things that happened. I think the first thing that

really caused the alarms to go off is that there was a proposal to expand the capacity of the sewer plant and also to replace Mulvain Street.

At that time, I was quite in favor of replacing Mulvain Street. It was a major problem in our sewer collection system, but I did some calculations on our long-term growth based on our long-term growth, and we've had an accelerated rate of growth for the past nine years based on census data and statics that are available from the planning department of Winnebago County, and based on those numbers, I see that at our present rate of growth over the past nine years, we have enough capacity in our sewer plant to handle all the growth we'll have basing it on the PE numbers that have been given today in testimony for about 40 years from now.

And on our long-term growth pattern we have enough capacity to take us into a little over 100 years. And I thought that with the problems that the people in Durand are having with sewer backup problems, I thought it was reckless to spend over half a million dollars expanding the capacity of the plant when it didn't need it. I was really looking for them to put the money into repairing the system.

Q. Are you familiar with the collection system of the Durand sewage treatment system?

A. I'm reasonably familiar with it, yes.

Q. How did you become familiar with it?

A. Well, it goes way back. I mean, my father was on the board when they put it in and I can remember him talking about the problems even as it was being installed, but from that point we jump up to my first sewer backup I suppose in '63.

My interest began to really generate. I just went out and gathered information. Did I answer -- isn't that the first question I answered how did I become familiar with?

Q. How did you become familiar with the collection system?

A. By gathering and reading all the information, by talking to people and by observing.

Q. Did you ever hold an elective office that related to the collection system?

A. Yes.

Q. What office was that?

A. I have been on the sewer and water committee since I took office.

Q. And the sewer and water committee does that

have jurisdiction within the village of Durand over the sewage treatment system?

A. Technically the grant sanitary district has jurisdiction and the committee can only advise. The whole board has to make decisions.

Q. Does the committee then have an oversight function?

A. Yes -- well, yes, one of several entities that has an oversight function, yes.

Q. Are you familiar with the treatment system itself?

A. Yes, I am.

Q. And did you become familiar with the treatment center, the system, in the same way you became familiar with everything else?

A. That was -- just after we were elected, I asked Mr. Sweet if he would give all the newly elected officers a tour of the treatment system, and that was a beginning. Since then, I've collected information on it and read everything I can get my hands on.

Q. Are you currently a customer of the Durand sewage treatment system?

A. Yes, I am.

Q. And that means I suppose that you own a residence in the village of Durand. Do you own anything else that's hooked up to the system?

A. I own two houses, one I live in and one next door.

Q. Have you ever at any time had sewage backup in your basement?

A. Yes.

Q. Have you had any sewage backup in your basement since January 1st of 1997?

A. Yes.

Q. And how many occasions?

A. May I refer to my notes here? I wrote these down.

Q. You have notes that you brought with you and you're referring to those to refresh your memory; is that correct?

A. That is correct.

MR. LARSON: I don't intend to mark these as an exhibit unless there's an objection.

MR. GREENE: Not at this point.

BY THE WITNESS:

A. I had one sewer backup in 1997.

MR. GREENE: Do you have a date?

BY THE WITNESS:

A. June 16 and 17, one sewer backup in 1998, June 26, two in 1999, April 23rd and April 27th.

BY MR. LARSON:

Q. With regard to each one of these, could you describe the circumstances -- after 1997 could you describe the circumstances in which you had sewage backup in your basement, what happened and what you did?

A. Well, these are all following very heavy rains in excess of four or five inches, a big excess in some cases. I believe by June 16th of '97 I had already installed a back flow valve.

Q. What's a back flow valve?

A. Well, I use it very simply. It's a valve that allows the liquid to flow one way, but when it starts flowing backwards in the line, the valve closes. I have a very simple valve. It's in any floor drain. It's simply an insert that screws in that's got a ball that's floats when the level comes up and a ball fits into a socket and in theory should stop the backflow. But it's not 100 percent efficient. It does slow the flow to the point where I can keep it pumped. So by 1997 I had the backflow

valve in the drain and I had a sump pump sitting over the floor drain and with the mechanism that turns the sump pump on, I was able to control sewer backup levels to about three inches, so they were just barely getting into my furnace and hot water heater.

Q. Let me backup and say what you're saying then is that you had backup into your basement in 1997?

A. Yes.

Q. And this was in June of 1997?

A. Yes.

Q. And how deep was it?

A. Well, I was able to control it because -- I didn't have the pit at that time and so I was able to control it at about three inches.

Q. So you had three inches of water in your basement. How did you know that that came from the sewer?

A. Well, the backflow valve fails and there's enough hydraulic pressure on that it shoots like a fountain of about ten inches and it did at that time. It can be that high or higher.

Q. Did you personally observe water coming out of your floor drain?

A. Walked down in the basement in the dark with no glasses and stepped into it. You bet. I did examine it to make sure that everything was working.

Q. That floor drain is connected to the sewer system?

A. Yes, it is.

Q. And how long in duration was this backup?

A. Let me check my notes for that. Approximately 12 hours.

Q. When you say approximately 12 hours, how did you decide when it started and when it stopped?

A. I took notes. My note says I have been pumping from 12:10 a.m. to about noon. I wrote that down sometime shortly after I stopped. I watched it frequently. I kept very good records. In fact, I have more detailed records that tell at what levels the rain came.

Q. Let me ask you to move on then to the next incident of sewer backup that you can recall.

A. I'm sorry. I just gave you the details of June 26, 1998 not the 1997.

Q. So the details that you gave relate to 1998 rather than 1997?

A. No, just the comments from my notes. The

other comments were the 1997. By June 1998 I had put a sump basket in about 12 inches away from the floor drain, so I had a different situation. So when that backup occurred, the sewage comes up in puddles in the low area where the drain is and then runs pretty directly in the sump basket and I pump it out.

Q. Where do you pump it out to?

A. In my yard.

Q. So in 1997 you did not have a pump?

A. Yes, I had the pump, but it wasn't sitting in the sump basket. It was sitting on top of the floor.

Q. So that's two incidences of sewer backup. Were there any others?

A. Yes. In 1999, this year, I had sewer backups on April 23rd and April 27th.

Q. Now, with regard to the 1997 and 1998, did you report those to anybody?

A. Yes. 1997 I don't recall. 1998 I did report.

Q. Who did you report it to?

A. I believe I reported the 1997, but I can't be sure of that. I reported it to Mike Sweet, and I also wrote letters to the EPA, Jack Adams at the EPA

at least three of them probably all four.

Q. Now, getting back to the 1999 sewer backups, did you report the 1999 sewer backup?

A. Yes.

Q. Who did you report it to?

A. Mike Sweet.

Q. In what form did that report take?

A. It was oral.

MR. GREENE: Pardon?

THE WITNESS: Oral.

BY MR. LARSON:

Q. Did you meet him on the street or something?

A. Yes, basically.

Q. What happened at the time of this sewer backup in 1998 -- 1999, I'm sorry?

A. Well, as I just described, those were not as intense because I already had all kinds of apparatus in place to take care of it. So the sewage comes in and goes into the sump basket and goes out again.

Q. How could you tell that there had been a sewer backup?

A. Well, I went down and examined it in every

case, and again the plume of sewage coming up because this was less pressure. This was around two inches of rain in each case so much less rain than I ever had a sewer backup with before, so the plume that came up was only an inch to an inch and a half above the water level around the drain.

Q. Now, you're saying that in 1999 the rain that was associated with your sewer backup was less?

A. Yes.

Q. Now, in 1999 -- we're talking about April of 1999?

A. Yes, and in both cases, I should point out, I checked the house that I own next door, and the house next door had 26 -- 24 to 26 inches on April 23rd which was about two-thirds of the furnace. And on April 27th I saw the water line about eight inches, but when I got over there it was at about three inches and in fact, both these instances I took photographs.

Q. Now, when you say the water line, what do you mean exactly?

A. Well, there was a -- the base of the inside of the cellar was wet up very consistently to a level of about eight inches on the wall.

Q. Now, did you have an occasion to check this house out in 1997 and 1998?

A. I bought the house in the late summer or August or September of '98, and when I went into the basement, the basement was full of stored clothing furniture, wedding pictures. A lot of things were abandoned. It was very apparent that there had been sewage in there of a level of at least two feet.

Q. What led you to conclude that?

A. The residue that was left in the wedding pictures and the photos and the cardboard boxes and everything else. There was actually some residue.

Q. Did you have any way of knowing when that residue had accumulated?

A. Not any firsthand knowledge from seeing it, no.

Q. Now, you said there was a second backup in 1999. What happened then?

A. Almost identical. It bubbled up through the backflow valve, ran into the sump basket and it was pumped out into my yard.

Q. Now, I want you to take a moment and refer if you would to what's previously been marked as Exhibit Number 1, and could you locate your house on

that map?

A. Yes. My house would be right here.

Q. And that's on what street?

A. That would be on the corner of West Main and Laona.

Q. And that's on the western edge of the village; is that correct?

A. Well, it's very close to the center of the village actually. It's very close to the main -- it's one block from the main north and south street.

Q. But the bulk of the village itself is to the east of your house; is that correct?

A. Yes.

Q. And what sewer line if you know serves your house?

A. There's a sewer line, the Laona Street sewer line, and it runs down to a line. It's been changed now, but it did run into an alley one half block to the north of me for a half block then north to the North Street line and north then to -- along the North Street line through the North Street line to the Mulvain Street line and back over to manhole 2 and 2A.

Q. Are you close to a manhole that's

identified on the map?

A. I'm close to manhole -- it's identified as manhole -- I can't read this. It looks like it's 20 something, but I can't read it.

Q. Would it be 25?

A. It looks like -- I really can't read it. It looks like 24, but this is 24A, 24B. It looks like 24, but I can't be sure.

Q. Looking at Exhibit Number 2, does that help you at all?

A. No. It looks like 2C actually, but I'm sure that's not correct. I think it's 24. In fact, it makes sense that it's 24 because as I go up the street it's 24A, 24B, 24C, 24D, 24E.

Q. Have you ever identified a break or an obstruction in that sewer line?

A. Yes. Mr. Sweet testified that I went with him and I believe -- I don't remember whether it was '97 or '98. I believe it was '97. I'm not sure. No, it had to be '98. I went with Mr. Sweet and we went out and pried off the downstream manholes along North Street until we located -- we could see which ones had elevated levels of effluent of sewage in them and then we found one that was working properly.

So we identified the length of pipe that had the obstruction.

Q. North Street according to the testimony of Mike Sweet has been repaired. Have you had any sewage backup in your basement since the North Street line was repaired?

A. No, but that was less than two weeks ago when they completed their work.

Q. Now, do you hear in the performance of your official duties and as part of your duties on the sewage -- water and sewer committee of the village of Durand when there have been sewer backups in the village?

A. I probably hear as much about that as anybody except Mike Sweet because my interest is pretty well known in the community.

Q. Would it be fair to say that people tell you when they -- people tell you about sewer backups when they have them?

A. Sometimes.

Q. Are you aware of any sewer backups after the period January 1st, 1997, that were not testified to by Mr. Sweet?

A. In June of '98, and I can't say that there

were sewer backups, but I observed pipes pushing liquid out of basements in the area where I live and in a couple of houses. I did not ask anybody whether it was sewage or whether even they had a floor drain, so I can't say whether it was sewage backup. More recently this year I talked with four of my neighbors. Two of them reported that they had had two or three inches.

MR. GREENE: I would object based on hearsay.

THE WITNESS: Sorry?

MR. GREENE: I would object based on hearsay.

MR. LARSON: Your Honor, it's repeated he's referring to reports that he received in an official capacity. They're not written reports. They're not business records, but they do reflect reports that he received in an official capacity.

MR. GREENE: It sounds like informal conversations he's having with neighbors as opposed to some official report that was made to him as a member of the sewer and water committee.

HEARING OFFICER KNITTLE: The objection is sustained. You can rephrase and try to get to it in

a different way.

BY MR. LARSON:

Q. Do you know a gentlemen by the name of T. Butler?

A. I know him.

Q. Did you ever come to have knowledge concerning a sewer backup involving T. Butler?

A. Mr. Sweet --

MR. GREENE: Objection to the leading form of the question.

HEARING OFFICER KNITTLE: Anything?

MR. LARSON: The question is did he ever become aware of a sewer backup involving T. Butler. I don't think that's leading.

HEARING OFFICER KNITTLE: Overruled.

BY THE WITNESS:

A. Mr. Sweet told me that T. Butler had had a sewer backup.

MR. GREENE: Objection, hearsay.

HEARING OFFICER KNITTLE: Sustained.

BY MR. LARSON:

Q. What do you understand the term I and I to mean?

A. Infiltration and inflow.

Q. And how did you become familiar with this term?

A. Reading the documents like a facility plan and DCCA Grant application.

Q. You filed a formal complaint with the Pollution Control Board alleging there was excessive I and I in the Durand system. What did you base this allegation upon?

A. Well, other than the obvious consequence of sewer backup throughout the village, I based it largely on information in the DCCA Grant ap. and influent records that Mr. Sweet keeps on the daily performance or the daily influent intake at the plant.

Q. And you have also in your formal complaint alleged that there was sewer backup in the village of Durand, and what did you base that allegation on?

A. Well, the best documentation came from the DCCA Grant application.

Q. When you say the DCCA Grant application, that's the document that's previously been identified and admitted into evidence as Exhibit 9; is that correct?

A. Right.

Q. Are you familiar with plans of the village of Durand to expand its residential population?

A. Yes.

Q. How did you become familiar with those plans?

A. The first subdivision I just read about in the paper and that was back in an annexation that occurred in 1993.

Q. And what subdivision was that if you know?

A. That was Otter Creek -- is Otter Creek.

Q. And has that subdivision been completed and built out to your knowledge?

A. No. There hasn't been much activity. There are 20-some homes probably approaching 25 homes, but less than 25 homes.

Q. Do you know of your own direct knowledge whether any of those 25 homes are connected to the Durand sewer system?

A. I believe one is.

Q. How do the others take care of their sewage?

A. They have septic systems.

Q. Now, is there any other potential expansion of the population of the village of Durand that

you're familiar with?

A. Yeah, there's another phase to Otter Creek that will have sewer lines to it and on the other side of town there's Twin Creeks subdivision proposed.

Q. And to your knowledge, the additional phase of Otter Creek, is that planned to connect up to the Durand sewer system?

A. Yes, there's already a sewer line in place.

Q. And how about Twin Creeks?

A. That's I would say proposed at that point. I think that there are lots of challenges to that subdivision.

Q. Is it your -- Strike that.

Do you know whether or not it's anticipated that if it's built, Twin Creeks will connect to the Durand sewer system?

A. Yes, it will.

Q. Now, you heard the testimony of Mr. Erwin Toerber today concerning additional population of the village using that additional population as the basis for plans to improve and expand the sewage treatment plant in Durand.

Do you know if those plans relate to Otter

Creek Phase 3 and Twin Creeks?

A. I heard, as we heard today, Mr. Toerber say that we needed it for future growth, and I have also read in the paper and I've had meetings where he said that we had the capacity to handle both subdivisions, so I really don't know if the expansion -- I don't believe that the -- if we look at the three months dry flow, I don't believe that we would need to expand the sewer plant to handle the two subdivisions even if they were built.

If we look at the growth projections that the facility plan was based on, we wouldn't need it, but those growth projections are exaggerated by a factor of about four times.

Q. Now, with respect to the formal complaint that you filed in this case, are you asking for any specific relief from the Pollution Control Board?

A. Yes, I am.

Q. And what relief are you asking for?

A. I would like the Pollution Control Board to prohibit the hook up of any additional subdivisions of any size to our sewer system until such time as we can resolve the excess I and I problem and put an end to sewer backups.

Q. Do you believe that increasing the number of residences using the Durand sewer system will have an effect on the system?

A. Absolutely.

Q. What effect do you think it will have?

A. Well, it contributes to the solid load, and it actually contributes to every load that there is. Even if there is no I and I, it adds solids to the load that puts additional load on the plant itself that increases the -- or decreased the dilution of sewer backup when it occurs and adds to just the volume load that causes the backup problem to begin with. It's just more volume in the pipes.

Q. Now, to your knowledge, were there at any time plans to increase the capacity of the Durand plant?

A. Yes.

Q. Were those plans presented to anyone for approval?

A. Yes. They were approved by the village board in either very late 1996 or early 1997.

Q. What happened then?

A. They were defeated in a referendum.

Q. At that point then, the plans for expansion

of the plant as far as you know were put on hold?

A. The probability of expanding or the possibility of expanding was raised again in February of this year, but no action has been taken.

Q. Based on your experiences as an elected official and your knowledge of the Durand sewer system, based on the knowledge that you accumulated and the reading that you've done and the conversations you had with various involved people, to your knowledge, are there ways to correct the excessive I and I problem?

A. No. I don't have -- I don't see that there's a solution. Obviously, there's a solution that is financially impractical and that's -- Mr. Toerber describes a situation where they went through a system and changed everything including service lines. I think that there are things that we can do to make it better, but I don't think that we can totally stop the I and I.

Q. Now, certain repairs have been effected in the village of Durand and they've been testified to by Mr. Sweet and Mr. Toerber.

Based again on your experience as an elected official and your knowledge of the Durand

sewer system as you testified to before, have those repairs had the effect of remedying the I and I problem?

A. Quite predictably they have not.

Q. And what do you base that on?

A. Well, when they started the repairs, I was there to observe a little bit, and they make about a ten to 12 foot wide trench and fill the entire thing up with gravel and so when the water runs off the street, it hits the gravel, goes right into the ground.

When we have heavy rains, many of the culverts in town don't take flow of heavy rains, so the ditches backup. It's a temporary situation. They would drain in an hour or two hours or three hours, but once the ditches come up and the water is not flowing rapidly, it also goes into that gravel bed and it's free to travel throughout all of the sewer system where there is a gravel bed like that which at this point is quite a bit. It's quite a volume of water that gets in the system.

Q. Do you have any reason to believe that the fact that you just testified to impacts the I and I situation in the system at all?

A. When they started it with the Mulvain Street repairs and I saw what they were doing, my comment to several people was that infiltration would not be decreased and would possibly be increased, and I'm satisfied now that it's been increased.

Q. Based on your knowledge and experience then, did it surprise you that the highest influent flow to the Durand sewage treatment plant since 1997 took place in April of 1999?

A. No, it does not.

Q. Why doesn't that surprise you if these repairs have been done?

A. Because these repairs -- and they're needed because they removed obstructions as well as points of infiltration, but these repairs as I pointed out have made conduit for the water to travel freely throughout blocks and blocks of system until they can find a break in a part of the system that's not repaired or in the service line or somewhere else.

Q. And what happens to that water once it gets into the system if you know?

A. Once it gets in the system, it goes by gravity or, in this case, I think it would -- and force main to the pumping station at the plant. And

if there isn't more than the pumps can handle or the lines for pumps to the first lagoon can handle, it's pumped through.

If the ground water infiltration exceeds the ability of the pumps to get it through those pipes, then we have initially a backup in the collection lines and then it continues to backup into basements.

Q. Based on your knowledge and experiences as an elected official and also your knowledge of the Durand sewer system, do you anticipate that the repairs that have been done so far are sufficient to eliminate the problem of sewage backup in the village of Durand?

A. No. I think that they will have -- what they've done is shifted the problem from probably two-thirds of the village to the lower end of the village, but I think that they may have even magnified the problems at the lower end of the collection system.

MR. LARSON: I have nothing further of this witness.

HEARING OFFICER KNITTLE: Mr. Greene?

CROSS-EXAMINATION

by Mr. Green

Q. Mr. Mulvain, prior to your becoming a village trustee in May of '97, you attended some of the board meetings when they were making discussions of and considering an expansion of the sewer system?

A. Yes, I did.

Q. And at that time is it correct to say that you were opposed to, in fact, I think you alluded to that this afternoon that it was not all right with you for them to expand the treatment plant?

A. That's correct.

Q. And why were you opposed to an expansion of the treatment plant?

A. Well, as I said based on actual growth patterns that we're experiencing, we will need to have that capacity for at least 40 years. And I think that it's -- it does a great disservice to the taxpayers of Durand to have them pay for services for future residents.

I think that the future residents should pay for those services themselves and since we have a limited amount of money then that money would be money that couldn't be borrowed or used to address the problems that the people of Durand are already

having with the sewer system.

Q. Your complaint is charging that there was excess infiltration. The questions that counsel has been asking has inferred that there is possible damage to the receiving stream, that there is excess solids that are not treated that are going into the environment. If there had been expansion of the lagoon, would that not have --

A. I didn't hear the first part of your question about how you got into the fluid from the -- would you repeat that, please?

Q. Your complaint, in part, is charging that there is violations because of excess influent?

A. Influent, correct.

Q. And the questions that your counsel has asked of you and of other witnesses is implying that because of it that there may be solids that are not being properly treated and TSSs and BODs that are being released into the downstream or the receiving stream or into the environment because of it.

If the lagoon had been increased, wouldn't that have decreased the possibility that that effect might have?

A. I can't comment. That question would be

better addressed to Mr. Toerber. I believe he's already addressed that.

Q. Even with all of the experience that you've had and the people that you talked to?

A. I have focused on the problems that have the greatest impact on the people in Durand and that's the problem of sewer backup and the problems that lead to sewer backup. And while I haven't looked at BOD and TSS, I haven't gone into the kind of study that I would need to do to answer your question.

Q. Would it be correct to say that you do not know of your own knowledge that there is any harmful effect of environment because of the I and I?

A. Oh, I know that there is. I'm pumping sewage right out in my yard and into the ditch. I've seen it bubble out of manholes on the street, and I've seen if pumped the fire truck or auxiliary pumps down in ditches directly in the creek let alone what goes out the other end of the plant.

Q. With regard to what goes out the other end of the plant, is it correct to say that you don't have any independent knowledge that it has any adverse effect on the environment?

A. Well, I've been down there and looked at it and the effluent coming out is green, which is algae. I wouldn't say that that's necessarily harmful, but I think it's -- there is documentation in this grant again that talks about the pathogenic effect of excess BOD especially.

Q. You're referring to this document, what document?

A. I'm sorry. I'm referring to the DCCA Grant application Exhibit 9, and so I have --

Q. DCCA Grant Exhibit 9. Isn't Exhibit 9 suggesting that if the sewage plant was expanded, that it would eliminate the possibility of that effect?

A. No, that's --

MR. LARSON: Objection -- excuse me. Excuse me. Objection. The question has already been asked and answered with regard to the witness' knowledge of the effects of BOD and untreated tolerants through the sewage system.

Mr. Mulvain has already answered that he does not have expertise in that area and is not qualified to answer questions with regard to that. I think having that question been asked and answered at

this point for counsel to continue on this line of questioning is pointless.

HEARING OFFICER KNITTLE: Anything further?

MR. GREENE: The question has nothing to do with the effect on the environment. The question has to do with whether or not an expansion of the system would alleviate that possibility of there being an effect on the environment.

HEARING OFFICER KNITTLE: Follow-up?

MR. LARSON: Again, the question goes to the effect on the environment, and the witness has already testified that he doesn't have knowledge or expertise that would qualify him to answer that question.

HEARING OFFICER KNITTLE: It's sustained. I think he has already stated that he doesn't know whether it would have an effect, Mr. Greene.

BY MR. GREENE:

Q. With regard to Twin Creeks, is that a development that you're opposed to?

A. Under the circumstances that it was presented to us, yes.

Q. And have you indicated on previous occasions that you would like to see them go away,

that that development just cease?

A. Having worked with --

Q. That's a yes or no question, Mr. Mulvain.

A. Yes, I would.

Q. And you were opposed to the annexation of Twin Creeks; is that right?

A. Yes.

Q. Are you opposed to expansion?

A. No.

Q. Are you opposed to expansion via Twin Creeks and Otter Creek?

A. No. I'm not opposed to expansion. I'm opposed to the conditions under which we are expanding Twin Creeks.

Q. And what are those?

A. The entire bill for the infrastructure will be footed by a special service area that puts the burden -- the ordinary cost of doing business on taxpayers and --

MR. LARSON: I'm going to object to these questions and ask that the responses and questions be stricken as irrelevant to the question for the board.

MR. GREENE: It's cross-examination.

HEARING OFFICER KNITTLE: Why is it

relevant though, Mr. Greene?

MR. GREENE: I think the relevance has to do with the credibility of his testimony that eventually gets to backups.

HEARING OFFICER KNITTLE: Overruled.

BY THE WITNESS:

A. Well, there's more. This all began because every time we put in a large subdivision, whether I like it or not, it increases the load on our collection system or the pumps or the plant. And my focus from the very beginning here is to solve problems for the people who live in the village of Durand really focusing on this sewer system and sewer backup which is a result of I and I and not spend that money for people who don't live there yet and make it impossible for them to generate funds to resolve these serious problems that we already have.

BY MR. GREENE:

Q. Well you've indicated that you were opposed to expansion of the lagoon, but that you were in favor of repairs and replacements of the collection system?

A. Yes.

Q. But then you were critical of the manner in

which it was repaired or replaced?

A. No. I'm not critical at all. I just -- I'm not critical of the way it was done. I don't know a better way to do it. I think we should continue with repairing those lines. I just don't expect that to solve the I and I sewer backup problem. I think we have to approach this from other directions as well.

Q. What do you see as the solution to the sewer backup problem?

A. I don't see a solution, but I see things to make it much better. I have worked to get the board to initiate a range project on the one corner of town. I was able to bring a proposal to the board to get our village engineer to do a comprehensive drainage study.

Last night I proposed a grant application to put in curb and gutter and storm sewers in one of the streets with the idea that we continue with that kind of grant for at least four of the main streets, the lower part of the town. That proposal was defeated unfortunately.

I proposed -- and I don't know if this is a good idea or not, I'd be happy to run it by an

engineer. I proposed dry wells into this gravel bed that we have. Now, I'm not going to take that to the board to propose it, but I propose that to engineers and that may be a possibility to literally pump ground water out when it reaches a certain level to keep that water from then going into our sewer system and pumping it into a holding area that would be created from a wetlands area that we have.

Q. You've indicated that the remedies that you're seeking or the result that you would like to occur as a result of these hearings is to force the village to discontinue allowing any further expansion or extensions to the sewer system?

MR. LARSON: Objection. That's not his testimony, Your Honor.

BY MR. GREENE:

Q. Is that incorrect?

HEARING OFFICER KNITTLE: Hold on a second. Can you respond to his objection before.

MR. GREENE: Well, I think that is what his testimony was.

HEARING OFFICER KNITTLE: Can you read it back.

(Record read as requested.)

BY MR. GREENE:

Q. Is that a correct statement?

HEARING OFFICER KNITTLE: I'll sustain the objection so far as I don't think that's his testimony, but you could ask him if he thinks that is a correct statement.

BY THE WITNESS:

A. Would you repeat that Mr. Greene?

BY MR. GREENE:

Q. Is the question that she read back -- it's actually a request -- is this your testimony.

THE WITNESS: Would you read it back?

(Record read as requested.)

BY THE WITNESS:

A. I don't want a complete moratorium on building, but, yes, I do not want to see substantial increases in population that put additional burden on our sewer system.

BY MR. GREENE:

Q. Isn't it correct that you testified that you want the Pollution Control Board to have us discontinue any further connections?

MR. LARSON: Same objection, Your Honor.

MR. GREENE: This is cross-examination.

HEARING OFFICER KNITTLE: Overruled.

BY THE WITNESS:

A. No, it's not accurate.

BY MR. GREENE:

Q. What is it then that you want the Pollution Control Board to do as a result of these hearings?

A. I would be willing to allow connections that are close in the older part of the village. I don't want to see a complete moratorium on building because I don't believe we're going to get the I and I and sewer backup problems solved for decades.

And so I would like to see -- there's a limited amount of room for growth in the areas of Durand that have least impact. Phase 1 of Otter Creek doesn't hook up to our system. There is a few areas left in the core of the village where people can build and they're close to sewer lines.

I think that there are so few houses that could be built there that it's not going to have a tremendous impact, but I would like to prevent the major impact of large subdivisions.

Q. Specifically Twin Creeks?

A. And Otter Creek, if you'll remember, I objected to the hook up of Otter Creek as well.

Q. Isn't there some agreement in the annexation agreement with Otter Creek that eventually those houses that have septic systems are to be hooked up to the sewer system?

A. Yes. When the septic systems fail, they'll have to hook up to -- they'll have to put in a line to hook up to our system.

Q. So those are in Phase 1 that presently have a septic system ultimately are going to be hooked up to the sewer system?

A. We're looking at decades there again, too, so perhaps we're looking at a long time in the future.

Q. You stated that you have had it, looks like, four backups since January of 1997?

A. That's correct.

Q. One on June 16 dash 17 of 1997?

A. Yes.

Q. And you stated that you don't remember if you reported that or not?

A. I could check my notes and see if I made a note of that. I don't have detailed notes on that particular backup.

Q. And this backup that you stated was June 25

or 26 of '98, that was on --

A. June 26, 1998.

Q. You stated that you reported that to Mr. Sweet orally?

A. Yes.

Q. And was that on the same day?

A. Yeah. If my memory serves me correctly, it was -- that's the day we went out and checked the manholes.

Q. And you stated you also reported that to the EPA?

A. Yes.

Q. When did you report it to the EPA?

A. I was a little -- two or three weeks later I wrote a letter to the EPA. I can give you exact dates if you want. It was --

Q. Let me help you, Mr. Mulvain, isn't it a fact that you waited five months to report it in November of 1998?

A. I don't have a copy of that letter. That may be correct. I don't recall.

Q. Do you recall if that was reported shortly after we filed an affidavit with a motion for summary judgment stating that we had no other information of

any other sewer backups that you reported this June backup in November?

A. I didn't keep a record of that letter, so I can't comment.

Q. You don't recall?

A. I don't recall.

Q. The backup that you state that you had on April 23 of '99, the report was an oral report to Mike Sweet?

A. Yes.

Q. On the same or next day?

A. Yes, very soon after.

Q. Very soon. And is that the same for April 27th --

A. Yes.

Q. -- of '99 an oral report to Mike Sweet on or about the same or shortly thereafter?

A. Yeah.

Q. Is there anyone else that you reported it to like at the village, any official, the mayor, the secretary?

A. Not in an official capacity, no. I mentioned it in conversation, but I did not report it to anyone else except Mike Sweet and the letter, of

course, to Jack Adams at the EPA.

Q. So Jack should have a letter regarding the April 23 and 27 backups?

A. I know I wrote him in both cases. I have a letter from -- wrote April 27th, 1999, and that was on the April 23rd backup and May 4th I wrote a letter to Jack Adams pertaining to the April 27th backup.

Q. Now, on the June 26th occasion 1998, you stated that that was sewage backup; is that right?

A. Absolutely.

Q. And there was no question in your mind that it was a sewage backup and not water runoff?

A. Well, I happen to be very sure of that since I could actually see a plume coming up from the floor drain. I also took a sample in a glass jar that I was going to have tested and I never did and it was discolored.

Q. So your testimony is yes you're sure that that that was sewage backup --

A. Absolutely.

Q. -- and not water runoff?

A. Yes. I don't have water runoff. I have never had water -- I have a cellar not a basement. It's not very deep, and I have never had surface

water enter the basement.

Q. Have you ever told anyone that on June 26th, 1998, your problem was a water runoff problem?

A. No.

Q. You're quite sure of that?

A. Yes, absolutely.

Q. And on each of these occasions you stated that it followed very heavy rains?

A. No. The last two occasions, the rains were much lighter than I would have expected to cause a sewer backup problem.

Q. And do you wish to change your -- what I wrote down of your testimony was that all of these followed very heavy rains of four inches to five inches?

A. Yes. We had in both cases two inches of heavy rain, but it usually takes four or five inches or more to cause a sewer backup. So while we did have some heavy rain -- not all -- heavy rains have to be at a certain level usually to cause sewer backup, and they were less than they usually are.

Q. You were looking through your folders before you could answer the question of whether or

not you reported the April 23 and 27 '99 backups to Mr. Adams, and apparently you found letters or copies of letters?

A. Yes, I found copies of letters.

Q. Can I see them, please?

A. Sure.

Q. When was the sewer that was replaced -- that goes by your houses replaced?

A. The one right in front of my house?

Q. Right.

A. I don't recall whether they did the 400 block or the 500 block of Laona first. I believe that they did the 400 block first. They did -- it was the end of April when that was repaired.

Q. There was some reference that you made at the end of your testimony on have you experienced any sewer backup since the completion of the repairs, and I think your answer was something like it was just repaired a few weeks ago. Were you referring to the repairs in or around your house?

A. No, the entire project.

Q. So were these two backups in April prior to the completion of the repairs or replacements of sewers in front of your house?

A. One of the repairs, the first backup --

Q. April 23?

A. The repairs had not yet reached my house. They were upstream and with the second backup the repairs were downstream.

Q. Were they still in the process of repairing the pipe in the direction of the plant?

A. Yes.

Q. At the time of the second backup --

A. Yes.

Q. -- that you referred to? How long ago was that completed?

A. I don't understand what you're asking me.

Q. How long was it completed that the section of sewer that goes by your house reached the completion point in the direction of the plant?

A. Well, right in front of my house was completed before the second backup, but if you take the entire Laona to North, that would have been completed in the very last part of July.

Q. Last month?

A. Yes. Yes, end of the month. In fact, it was completed either on the 28th -- right around the 28th or 29th in front of my house, the 28th, 29th or

30th of July.

MR. GREENE: Could we take about a two minute break?

HEARING OFFICER KNITTLE: Yes.

(Recess taken.)

HEARING OFFICER KNITTLE: Back on the record. You can continue with your cross-examination.

BY MR. GREENE:

Q. Just a couple more questions. Mr. Mulvain, again, directing your attention to the alleged sewer backups on April the 23rd and 27th of '99 as to the first one, April 23, '99, can you recall specifically under what circumstances and what time the day it was or anything specific as to when you notified Mr. Sweet of that backup?

A. I'll see if that's in my notes. April 23rd?

Q. Correct.

A. No, there isn't.

Q. Can you recall without looking at your notes whether it was -- the time of day or the place that you were at, whether it was face to face, over the telephone?

A. No. I ran into Mike someplace because I was out throughout the night and the next morning driving around town taking notes on drainage problems, and I ran into him in the course of that trip, but I don't remember when or where.

Q. Was it daylight?

A. Yes.

Q. So it was the next day?

A. Yes, the 23rd. It wasn't the next day. The rain occurred the night of the 22nd and the morning of the 23rd. In fact, I can be more specific if you'd like.

Q. No. That's fine. So you're talking about sometime during the daylight hours of the 23rd?

A. Yes.

Q. You ran into Mike someplace?

A. Yes.

Q. In the village?

A. Yes.

Q. On the street?

A. Yes.

Q. In a truck?

A. Yes.

Q. Who was in the truck?

A. Mike and I and we talked about some drainage problems as well. I remember that we talked specifically about Cynthia Court which has a very serious drainage problem, but I don't remember where that took place.

Q. Did Mike offer to investigate?

A. No, he did not. I invited him to investigate. I actually wanted him to look at it.

Q. Did you ask him to?

A. Yes.

Q. And his response was what?

A. He's busy and he had --

Q. Is that a whole sentence?

A. Yes, he was busy.

Q. 4/27/99, can you be as specific as you can on how and when you notified Mr. Sweet at that time?

A. No, I don't have anything in here about when I ran into Mr. Sweet.

Q. Do you have any recollection?

A. Well, I was looking for -- yeah, I know I made it a point to find him and tell him about it because I wanted him to know it was a matter of record.

Q. This is only a few days after the prior

one?

A. Yes. That's correct. No, I don't have -- my notes on this are much less elaborate.

Q. Did the --

A. I can remember the conversation, however, because on that date they were downstream. The repairs were going on downstream from my house, and I suggested to him that the sewer backup was the result of surface water running into the excavation. And he told me that it was not the case because they had sealed the connection from between the old and the new before they went home. And I don't remember where that took place either. It seems it might have been somewhere between the village hall and my house, but I'm not sure.

Q. During the daylight hours again?

A. Yes.

Q. Would that have been still on the 27th?

A. No, that would have been on the 28th.

Q. Do you know if it was before or after noon?

A. No, I don't.

Q. It would probably be after 10:30?

A. Absolutely. No, actually, that night I was up a good share of the night again looking at

drainage, but that was no different than the ones before.

Q. Is it your testimony that on both of those occasions you noticed people pumping water out of their houses?

A. No. The only time I noticed that was in the one residence that I mentioned. I think that was the 1996 incident, I believe. Other than that, I just haven't paid any attention.

What I did is my feeling on that is that we had a pocket of the community that had a problem because of the obstructed area that Mike and I found in North Street, and it just seemed to be rather unusual that I would be the only one to have sewer backup in that area, so I systematically talked to some of the neighbors about it.

MR. GREENE: I have no further questions.

HEARING OFFICER KNITTLE: Mr. Larson?

REDIRECT EXAMINATION

by Mr. Larson

Q. Mr. Mulvain, what's your motivation in filing this formal complaint to prevent the completion of the Twin Creeks development?

A. This complaint was originally filed against

Rockford Blacktop Otter Creek development. My intention in filing this complaint is to not aggravate an existing serious sewer backup problem.

Q. So you don't have any specific intention to block a particular development by filing this complaint?

A. No.

MR. LARSON: Nothing further.

HEARING OFFICER KNITTLE: Recross?

MR. GREENE: No recross.

HEARING OFFICER KNITTLE: Thank you, sir. You can step down.

MR. LARSON: I have nothing further.

HEARING OFFICER KNITTLE: Do you wish to close your case in chief?

MR. LARSON: Yes, sir.

HEARING OFFICER KNITTLE: Let's go off the record for a second.

(Discussion had off the record.)

HEARING OFFICER KNITTLE: Pursuant to the off-the-record discussion, Mr. Greene is going to start his case in chief -- I should say the respondent is going to start his case in chief tomorrow. Complainant has no objection to that, so

we will meet back here at 9 o'clock tomorrow morning.

MR. LARSON: Thank you.

MR. GREENE: Thank you.

(End of proceeding.)

STATE OF ILLINOIS)
) SS:
COUNTY OF DUPAGE)

I, Michele J. Losurdo, Certified Shorthand Reporter of the State of Illinois, do hereby certify that I reported in shorthand the proceedings had at the taking of said hearing, and that the foregoing is a true, complete, and accurate transcript of the proceedings at said hearing as appears from my stenographic notes so taken and transcribed under my personal direction and signed this 20th day of August, 1999.

Michele J. Losurdo

Notary Public, DuPage County, Illinois
CSR No. 084-004285- Expiration Date: May 31, 2001.

SUBSCRIBED AND SWORN TO
before me this 20th day
of August, A.D., 1999.

Tamara L. Bailey
Notary Public

"OFFICIAL SEAL"
TAMARA L. BAILEY
Notary Public, State of Illinois
My Commission Expires 06/04/03