BEFORE THE COMMISSIONER OF PUBLIC HEALTH

FOR THE STATE OF IOWA

In the Matter of	
HEARING ON REPORT ON THE WATER POLLUTION INVESTIGATION OF THE TRIBUTARY TO THE MIDDLE FORK LITTLE MAQUOKETA RIVER BELOW THE HOLY CROSS COOPERATIVE CREAMERY ASSOCIATION IN DUBUQUE COUNTY.	TRANSCRIPT

Third Floor Conference Room
State Office Building
Des Moines, Iowa
Thursday, March 1, 1962

The above entitled matter was convened at 10:00 a.m.

BEFORE:

HON. EDMUND G. ZIMMERER, M. D., Commissioner.

A P P E A R A N C E S

PAUL J. HOUSER, Director, Division of Public Health Engineering, Iowa State Department of Health, Des Moines, Iowa.

FRANK D. BIANCO, Assistant Attorney General, State House, Des Moines, Iowa, appearing on behalf of the Department of Health.

JOHN R. SHAY, Public Health Engineer, Iowa State Department of Health, Des Moines, Iowa.

JACK L. DEGNAN, Attorney at Law, Guttenberg, Iowa, appearing on behalf of the Offenders Holy Cross Cooperative Creamery Association.

I N D E X

E X H I B I T S

P R O C E E D I N G S

THE COMMISSIONER: The purpose of this hearing as you all know is to establish the sources and the extent of the pollution said to exist on the tributary to the Middle Fork Little Maquoketa River below the Holy Cross Cooperative Creamery Association, and to determine whether or not an order should be entered ordering you to desist in any practice found to be the cause of the contamination and pollution.

Have all the attorneys entered their appearances? Your name?

MR. DEGNAN: Jack Degnan, D-E-G-N-A-N, Guttenberg.

THE COMMISSIONER: You are from?

MR. DEGNAN: I am from Guttenberg.

THE COMMISSIONER: And representing?

MR. DEGNAN: I represent the Holy Cross Creamery.

MR. BIANCO: The Assistant Attorney General, Mr. Bianco, representing the State.

THE COMMISSIONER: Mr. Bianco, do you have any opening statement that you would like to make?

MR. BIANCO: Well, I think, Mr. Commissioner, you have covered the problem here. All I can add is the reason the hearing was initiated is because of a letter of complaint and a petition of 25 residents in the area requesting this investigation. Of course, under the statutes, the Department is required to make this investigation, and I think reports have been furnished to

all of the interested parties of the investigation.

THE COMMISSIONER: Do the respondents care to make a statement at this time?

MR. DEGNAN: Well, Dr. Zimmerer, I would like to state, of course, that this creamery has received your notice, that they are here in response to that, and they have brought for further evidence men who live on this tributary, and also have the consulting engineer who has been employed by this creamery to look into the same question. This is Mr. McMahan, of Bartels & McMahan, of Dubuque. The manager of this creamery is here, Mr. Cleitus Osterhaus; the chairman of the Board of Directors, Mr. Al Pfeiler; and a Mr. Vincent Schieltz; and Mr. Mat Heiderscheit; and Mr. Nick LeGrand; and Bernard Kluesner, who is also a member of the Board. The other three gentlemen I mentioned, Schieltz, Heiderscheit, and LeGrand are people who live right on this stream and --

THE COMMISSIONER: They all will be given an opportunity, of course, to testify.

MR. DEGNAN: Thank you.

THE COMMISSIONER: Mr. Bianco, do you have a witness?

MR: BIANCO: We would like to first call Mr. Houser.

PAUL HOUSER

was called as a witness on behalf of the State, and being first duly sworn by the Commissioner, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Bianco:

Q State your full name, please?

A Paul J. Houser.

Q And your occupation?

A Director of the Division of Public Health Engineering, Iowa State Department of Health.

Q Please state what your duties are?

A One of my duties is to administer the State Water Pollution Law. This involves making investigations of alleged pollution conditions and following the procedure as set up in Chapter 135, Code of Iowa, relative to preparing a report and submitting it to the Commissioner, and the procedure that follows relative to hearings and issuing of orders.

Q Will you state your experience and academic background briefly, please?

A I have a Bachelor of Science degree from the State University of Iowa, College of Engineering; Master of Science Degree from Harvard University; professional registered under the Iowa registration laws of professional engineer. I have been with the State Department of Health since 1929, and made director of the Division in 1949.

Q Now, Mr. Houser, did you receive a letter complaining about an alleged condition of pollution in the tributary to the Middle Fork Little Maquoketa Riber on or about August 19, 1961?

A Yes.

(State's Exhibit 1 marked for identification)

Q I will hand you what has been marked state's exhibit 1 and ask you if that is the letter you received?

A Yes, this is the letter dated August 19, 1961, from Frank Simon. He mentions that, complaining about the dumping of wastes from the Holy Cross Creamery into a stream. And he goes on to state that"it has killed all the fish for a mile down the stream and my livestock will not drink the water. This stream has supplied the cattle with water for many years, and now it isn't fit to drink." And then he gives the location of his farm.

Q Did you also receive a petition from the residents in the area of LeGrande and Concord Townships, Dubuque County, on or about September 21, 1961?

A Yes.

(State's Exhibit 2 marked for identification)

Q Now I hand you what has been marked State's Exhibit 2, and ask you if that is the petition you received?

A Yes, sir. May I --

Q Pardon?

A May I say, Mr. Bianco, that our reply to the letter marked exhibit 1 we wrote Mr. Simon and called his attention to

the fact that the water pollution control law, if we were required to make an investigation, he should submit a petition as stated in the law. Subsequently, I did receive this petition which was September 21, 1961, received in our office.

Q Then after receipt of the petition, what action, if any, did you take?

A I assigned the investigation of the alleged condition of pollution to Mr. Shay, who is on the staff of the Division of Public Health Engineering.

Q And did he conduct an investigation?

A Yes, sir.

Q Was there a report made of the investigation?

A Yes.

(State's Exhibit 3 marked for identification)

Q Now, I will hand you what has been marked State's Exhibit Number 3, and ask you if that is a copy of the report made?

A Yes. This is entitled Report on the Water Pollution Investigation of the Tributary to the Middle Fork Little Maquoketa River Below the Holy Cross Cooperative Creamery Association in Dubuque, Iowa, dated February, 1962. The first page is a letter signed by me transmitting the report to Dr. Zimmerer, Commissioner of Public Health.

Q And is that report, was that report composed by Mr. J. R.

Shay, Public Health Engineer?

A Yes, sir.

Q And did he sign the report?

A Yes.

Q As a result of the report, what next step did you take, if any?

A The next step was taken by Dr. Zimmerer, who entered an order fixing a time and place of hearing on this matter of alleged pollution of this stream.

(State's Exhibit 4 marked for identification)

Q I will hand you what has been marked State's Exhibit Number 4 and ask you if that is a copy of the order, if you know?

A Yes.

Q Do you know Dr. Zimmerer's signature, do you?

A Yes.

Q And that is his signature?

A Signed by Dr. Zimmerer.

Q Was there a notice served then by reason of this order setting a time for hearing?

A Yes.

(State's Exhibit 5 marked for identification)

Q I will hand you what has been marked State's Exhibit 5 and ask you if this is the original notice setting the time of hearing?

A Yes, this was sent to the sheriff of Dubuque County and the notice bears the return of service signed by Frank Spielman, sheriff, Dubuque County, Iowa.

Q Do you have that, Mr. Degnan?

MR. DEGNAN: Yes.

MR. BIANCO: The State now offers exhibits 1 through 5, inclusive, as identified by the witness.

THE COMMISSIONER: Any objections?

MR. DEGNAN: No objections.

THE COMMISSIONER: They will be accepted.

MR. BIANCO: That is all.

THE COMMISSIONER: Do you want to cross examine, sir?

MR. DEGNAN: No cross examination.

THE COMMISSIONER: Thank you.

(Witness excused.)

MR. BIANCO: I will call Mr. Shay, please, to the stand.

JOHN R. SHAY

was called as a witness on behalf of the State, and being first duly sworn by the Commissioner, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Bianco:

Q Your full name, please?

A John R. Shay.

Q And your occupation?

A Public Health Engineer, Iowa State Health Department, Engineering Division.

Q How long have you been acting as such?

A Well, a total of approximately ten years, but there has been a lapse in there -- since 1957.

Q I mean for the department?

A Well, --

Q About ten years?

A It's about ten years total.

Q Briefly state your experience and academic background as a public health engineer?

A I am a graduate of the State University of Iowa, Engineering College, with a BS degree, registered under the engineering laws as a professional engineer, and have worked with the department for approximately ten years in the Engineering Division, and was connected with the local health department as administrator and public health engineer for a period of a couple of years, and was with a consulting private-practice engineer for a period of about 19, 19 months.

THE COMMISSIONER: Speak a little louder. Did you hear

all that?

MR. DEGNAN: Yes, I heard it, thank you.

Q (By Mr. Bianco) Now, Mr. Shay, were you assigned to make an investigation of the tributary to the Little -- Middle Fork Little Maquoketa River? That is quite a name.

A Yes.

Q On or about -- I will get the date here.

A You are looking for the date, Mr. Bianco? I want to call attention to the fact that there is no date of survey mentioned in this report and this is an oversight. The date of this investigation is based on a survey that was conducted on November 30, 1961, by myself.

Q All right. And as a result of that investigation, did you compile a report to Mr. Houser, the Director?

A Yes.

Q And I hand you here exhibit 3, is that the report you complied and submitted?

A Yes.

Q Now, I notice on the blackboard behind you there what appears to be a plat or sketch which is denoted "Reach of Stream Below Holy Cross Cooperative Creamery," and I call your attention to Figure 1, Page 9 of exhibit 3 and ask you if those two plats, the one in exhibit 3 and the one on the blackboard are approximately the same?

A Yes.

Q Now, in your investigation and in your report, I notice some technical terms and I think it would be, of course, of interest to the people present if we had an explanation of the abbreviations as used in the report, starting with on page 3 "Temperature (^{o}C)". Would you explain the meaning of that?

A Yes. That is temperature in degrees Centigrade as compared to Farenheit. And it actually is lower. If you take a Farenheit reading, it -- let's take the Centigrade. It is 9/5 of C, plus 32 degrees equals Farenheit.

Q That, of course, is for determining what in your investigation?

A Well, temperature is a physical determination, of course, and reflects -- is of importance in the matter of solubility of oxygen in stream pollution work and also denotes influence of say, a waste material of a certain nature merely from the physical standpoint of perhaps heat. So that it is useful in both ways. But in stream pollution work, primarily as it is associated with oxygen solubility.

Q Now, will you explain the meaning of the abbreviation pH?

A Well, actually, it stands for the hydrogen ion concentration and it reflects the -- it is a measurement of the relative acidity or alkalinity of a water and has no units. It merely is -- a pH is such and such and its value, a value of

7 is neutral, and over 7 being on the alkaline side and under 7 denoting an acid condition.

Q Now the meaning of the abbreviation DO or dissolved oxygen?

A Well, dissolved oxygen in a stream, of course, is important from several aspects. One thing is that in the absence of dissolved oxygen, the water has a capability of having free dissolved oxygen in it, and it is replenished through riffles from through the interface of the water and the atmosphere, and the presence of oxygen that a normal stream has, that is, a stream with no pollutional material in it, will have a dissolved oxygen value of a certain value, depending again on this matter of temperature. The water can only hold so much oxygen, depending upon the temperature; and the absence of oxygen is of importance in stream pollution work from the standpoint that you get aerobic as long as you have oxygen available in the water. You have an aerobic condition, and under aerobic conditions you do not have odors, obnoxious odor conditions. In the absence of oxygen, you go over to anaerobic decomposition, different type of organisms take over and you have then foul odors, complex odors, hydrogen sulphide being one of them in anaerobic decomposition.

Of course, another important part, factor, of dissolved oxygen is the fish and aquatic life, and in the absence of oxygen, of course, fish cannot live; and in the

absence of oxygen, you modify your biota, your biological aquatic life in the stream so that you tend to degrade it.

Q Now, will you explain the meaning of the abbreviation BOD or 5-day biochemical oxygen demand?

A Well, this is a measure again relating back to oxygen. It is the measure of the amount of oxygen required over a period of five days at 20 degrees Centigrade temperature to stabilize this material. In other words, to oxidize this material. You have organisms in there that require oxygen; and utilization of this oxygen then is interpreted in dissolution and is computed based on a depletion of the oxygen over this period of time into BOD. Actually, it is an oxygen relationship. It is the amount of oxygen required of a given water to stablize or to oxidize the organic material in the sample.

Q Now, will you explain the abbreviation MPN as relates to coliform bacteria?

A Well, the measure of coliform bacteria, of course, -- they inhabit the intestinal tract of warm-blooded animals, including man, and thereby are an indicator organism indicating the presence of sewage-borne wastes. And it is actually the most probable number, the number most likely statistically to occur in a given sample at the time of collection; and it is a specific test for pollution inasmuch as the organism does inhabit the intestinal tract of the warm-blooded animals, including man. Also these bacteria are of the coliform group.

The coliform group of bacteria are also found in the soil, too, and in certain industrial wastes.

Q Now, does fungus growth have some relationship to pollution?

A Well, here again, yes. The fungus growth is demonstrated by the presence of organic material being discharged into a stream. And they are significant from a, you might say an indicator, from an indicating standpoint that there are wastes of a nutritional nature being discharged into a stream at a given point. They are also significant from the standpoint, of course, of covering, in effect, much the same as a sludge blanket of solids actually, settling out in a stream. You get a profuse fungus growth in the bottom of a stream and you modify the stream biota, the bottom life, the organisms that serve in the overall balance of the biology of a stream, so that you actually get a covering, in effect. You can on occasion have fungus.

Q Now, will you briefly state the route of your investigation as shown by the sketch figure on page 9 of exhibit 3 and you can refer to the blackboard in your explanatory statement?

A All right. Well, during the course of this survey which was conducted on November 30, 1961, the stream was observed at points as indicated on the sketch and on the report, in the report. At the same time in connection with this

observation of the stream, a visit was made to the Holy Cross Creamery and a conference was held with the manager and the president of the cooperative board to determine the character and the nature of the discharge of sewage and wastes into this particular reach of stream. So I might say first of all that it was, we might say that it was determined that the Holy Cross Cooperative Creamery Association is engaged in the receiving and other operations connected with milk receiving and processing with the ultimate production of cottage cheese. The creameryhas a whey storage facility which was incorporated into the overall planning to be used, in other words, for whey to be taken from cheese vats and placed in the tank. Sanitary wastes from it are discharged into the septic tank and then sent into the drain line, so that the Holy Cross is located here and denoted by "X" in the square and is served by an outlet generally in this direction to the receiving stream. And this line carries processing wastes from the handling of milk and the processing of the milk and sanitary sewage, septic tank effluent from the sanitary sewage of employees.

The arrangement of the plant, the physical plant, is such that whey may be taken or may be discharged either way. In other words, whey can be stored or whey can be admitted directly to this line and also it can be entered into this line, as I recall, through overflow from the vat storage area. So that Station No. 1, of course, is above the discharge of the

creamery outlet. Actually, the creamery outlet discharges some approximately 100 feet, thereabouts, from the stream, actually, and the flow discharges from a pipe that -- and flows over ground, over an outcropping of stone and thence into the river.

At Station 1 the stream was observed during a survey and, of course, at this point, there was very little flow. However, there was flow at 1, in other words, above the creamery outlet. This flow was very clear and sparkling clean. The bottom was clean and indicated a very satisfactory condition. Here again, in terms of the point that we discussed just a moment ago, BOD value was 1 part per million, which is very low, very low for a stream, and a BOD value of 11.3, which is quite high, which is satisfactory, is good.

Q Are those figures shown in Table 2 of Page 10 of exhibit 3?

A Yes, tabulation of the chemical and bacteriological results are given in Table 2 on Page 10. The physical observations as well as the analyses conducted on a sample collected here on Station 1 indicate a stream of good quality. At Station -- or at CO, actually the creamery outlet, the wastes at the time of collection, which was late in the afternoon, as I recall, had an appearance of diluted milk, white in color, and actually I would interpret the appearance as diluted milk appearance, white. At the time of collection, it did not appear

that there was any whey being discharged at this particular moment. The BOD again, measure of the strength of the sewage, was 450 parts per million; and whereas, this may be somewhat low for there -- but you understand this is a grab sample, but this is in a range and higher, actually, that you might expect from milk processing wastes to run. As a means of comparison, actually, domestic sewage from a municipality, the domestic sewage will run, say 200 parts per million, BOD. Here at this particular time we had 450.

Now, MPN value at this particular moment, time of sampling was 60,000. This is considered to be low, actually, in view of the fact that there is -- it is known that there are sanitary wastes being discharged here, and one would expect, and you would believe that this MPN would be normally higher, or would be higher at times.

Now, at Station 2 approximately 100 feet below the -- below station, or below the entrance of sewage and wastes from the creamery, the stream water was very white in color. And here again, the stream bed, bottom, was covered with a very heavy profuse growth of fungus. Near quiet waters, in back waters behind some obstructions there was black septic conditions indicating in that smaller area that the wastes were undergoing anaerobic decomposition in that small pool area. The BOD of the sample collected here at Station 2 was 75, of course, which is high. And I refer back to Station 1, which is,

actually, in this case considered as the control sample, so to speak, 75 parts per million at Station 2.

At Station 3, approximately a quarter-mile below the discharge of creamery and process wastes and sewage, the stream was observed actually earlier in the day than at any of the other stations. In other words, I had access to Station 3 actually, I believe, in the morning; and at that time the stream had a definite physical appearance. The stream was somewhat yellowish in color, yellowish-green, and was very strongly indicative that whey had been discharged sometime prior to this observation. This also accounts for the fact that whereas a 75 parts per million BOD was observed at Station 2, and Station 3 there was a 200 parts per million. So the difference lies in, of course, the time of sampling and also the physical appearance of the stream. Here again, I think it can be brought out that the milk, discharge from milk processing wastes is a very veritable thing, depending on the operation. It is far from being a constant type of discharge or a discharge like from a municipality, from carrying strictly domestic sewage. Another thing I want to bring out at this point because it has to do with the fungus growth and that is that this stream is on a rather steep slope, actually being in this part of the state, and has numerous riffles and the velocity is very high, and actually this velocity and the character of the stream has something to do

also with the fungus, the fact that you have got a very high velocity, and it tends to provide more food for the fungus growth because of this velocity, so that you have -- and on the other hand, it is a very good characteristic, too, from the standpoint of oxygen. But it is a very fast flowing stream and there are numerous riffles that were noted in the stream.

At Station 4 approximately two miles below the creamery outlet the stream was observed to be recovering from the effects of the discharge. The stream flow was clear, clearer, and the stream bottom was much different here than up in this reach. There was, however, profuse fungus growth of more of an isolated nature at various places, on obstructions or on rocks, very, very profuse large bulb-type fungus growth indicating, of course, that the nutrients actually for this fungus growth as reflected by this discharge of this waste was influencing the condition of the stream at this point to that extent.

The stream water itself was clear, and the BOD value of this sample had reduced to 3 parts per million, or was three parts per million. Here again, due to the intermittent nature of the discharge, you can't necessarily put significance between 3 parts per million at 4, and 2 parts per million at 3.

An approximately 800 feet below this station here again indicating that in the immediate area of 4, Station 4, approximately Station 4, that you still were having a very

general profuse fungus growth.

Now, the stream at Station 5 continued to show improvement. The water was clear and the bottom was -- and the bottom could be observed in several feet of water. I actually saw several fish, larger in type, and some smaller ones through a bridge abutment in this area. The DO, of course, was 11.2 here which is satisfactory, and a low BOD of 1 part per million. So that that is the review of the data.

Q Are there some springs down in the area of 4, Stations 4 and 5?

A Well, it was reported to me, and I did not take the opportunity at that time to further investigate it. It is indicated, apparent in observing the stream, Mr. Bianco, that when you get into this reach in here, I would estimate --

Q At 5, you mean?

A At 5, that there is a magnitude of well, 15 to 20 cubic feet per second of flow. It is quite a pronounced flow realizing that you start here in this tributary at approximately less than 1, well, say it's 1 cubic feet per second, and in here it's 15 to 20. And it was reported to me that there are several spring fed tributaries in this, in this reach in here of the tributary.

Q That would be below Station 3?

A Yes, as I recall that. Yes, that's right. It would be below Station 3 that these were reported as occurring, spring-fed

tributaries, and as you move down stream, actually on the tributary, it is quite apparent there again that there is supplemental flow to this tributary somewhere.

Q What is the significance of the oxygen balance and coliform bacteria as shown on Table 2 at Stations 2 and 3?

A Well, actually the oxygen balance is merely a mathematical relationship here measuring the oxygen, you might say, that is available.In the dissolved oxygen table here take Station 3, or 2, 8.7 dissolved oxygen. That is the resources, you might say, of the stream at that particular point or moment of sampling. The demand at this particular time at this point was 75 so that you have a negative oxygen balance in that particular area. However, this doesn't indicate that you have -- you do have oxygen at that particular moment. It isn't a depleted oxygen condition. The same is true at Station 4 only you have a larger mathematical difference.

Now, the coliform, as I pointed out, the coliform as noted in the table actually, as I said earlier, the coliform here you would normally expect to be higher because you are discharging sanitary wastes, and we know that there are coliform organism in the septic tank and we know further that there are times very little removal of the coliform organism takes place through a septic tank. So there are occasions when you start out with certain coliform prior to the septic tank and you may have the same number coming out so that this was lower, as I

say than would normally be expected.

The control, actually I don't know whether I mentioned that or not, but the control of 70,000, of course, was higher than is expected for a stream, agricultural stream. Now we have to take into account again on the basis of this was one survey. These were -- this is a set of samples collected at this particular time. As I pointed out earlier, the significance of coliform -- coliform are found in the soil, in other words, too, so that -- and you have agricultural run-off in your agricultural streams, so whereas this 70,000 is considered high. It is not an improbable situation or it is not unlikely that you could get 70,000, depending on the time whether you have cattle watering. It is quite frequent that we find cattle watering above a point. I question if there is any cattle watering here on my limited observation. I just didn't see this.

But as you move down in here at Station 2, again to interpret between the outlet and Station 2, it can be seen that, of course, at Station 2, there are 620,000 MPN, which, of course obviously is higher than both the control and in this case the creamery discharge which was at 60,000. But there again, I would believe that the 620,000 is very possible in view of the nature of the discharge from the creamery because of the sanitary wastes.

And at Station 3, of course, you do get -- it is less, it is 130,000 and then by the time you get to Station 5 here, the

coliform has reduced to 600 in that reach of the stream.

Q Now on page 5 of Exhibit 3, you set out the definition of the statute, Code of Iowa, defining pollution. Based upon this definition and your investigation that you have just testified to, what is your opinion as to whether or not the stream in question is polluted?

A Well, it is my opinion that the stream is polluted based on the -- based on the definition of pollution as taken from the Code of Iowa. The stream as it was observed with the fungus, profuse fungus growth is, would constitute and does constitute a nuisance to riparian owners. This can be in the form of odors, where as there was no particular objectional odor observed at this time, the fact remains that this material in dying and in the cycle does create a demand and can create an objectionable odor condition on decompostion. And I think further, referring to Table 2 again, it can be -- it is shown here, whereas the dissolved oxygen of the stream was found to, at this time, was found to contain oxygen sufficient generally to sustain fish and aquatic life, however, it can be shown here from the Station 1 which had an 11.3 parts per million dissolved oxygen to Station 3 where it was 4.7. Now, this demonstrates the effect, this demonstrates what is happening in that reach of stream as a result of the creamery wastes as far as the oxygen resources are concerned.

Q And there again depending on the type of flow, with lower

stream flows, and again, depending on the amount of wastes being discharged at different times, the oxygen in this stream can be, can be seriously lowered to a point that it is not acceptable for fish and aquatic life. In other words, actually 5 parts per million is generally recognized. Three to five, but more on the higher side is generally recognized as being necessary to sustain and develop fish and aquatic life. But as you would deplete this oxygen below these values and, as I say here, we have 4.7 at this particular time, whereas it is not a critical level, but it is clearly demonstrating the effect of these wastes and it is obvious that depending on stream flow and the character of the wastes discharged the strength that this oxygen level could be reduced.

Q As a result of your investigation and -- or findings, and your opinion as to the condition of pollution and the condition of nuisance, as you have testified, what were your recommendations?

A Well, recommendation number 1, it is recommended that the Holy Cross Cooperative Creamery Association discontinue the practice of discharging whey into the receiving stream.

Number 2, it is further recommended that the sewage and waste treatment facilities, that sewage and waste treatment facilities adequate to abate and prevent the recurrence of the pollution condition in the receiving stream be installed by the Creamery.

MR. BIANCO: You may cross examine.

CROSS EXAMINATION

By Mr. Degnan:

Q Mr. Shay, the plat that you have on the blackboard has on its surface and on the figure 1 in your sketch, lines indicating land sections, is that correct?

A Yes, those are sections, that's right.

Q Did you measure the distance from the mouth or the origination of this stream in Section 20 down to the control station at which you took grab samples?

A Yes, well, it was taken from a, from a county map reference. I didn't measure this with a pedometer or anything. I merely measured these relative distances from available information that we have of the area.

Q Based on the information that you have and you say your reference was a map, was that map fairly recent?

A Yes.

Q What you referred to?

A Well, yes, probably, I don't know what year it was, but 1959 possible.

Q Well, what would you say as distance in feet approximately would it be from the control station to the origination of this stream?

A To the head of the stream, you mean?

Q Yes?

A Well, I would say somewhere in excess of two and one-half miles.

Q Now, did you make an investigation to determine whether there were any livestock and farmyards along that stream to the north of the control point?

A Farmyards or stock?

Q Stock feeding and that or any other wastes being deposited?

A No.

Q You did not?

A No.

Q Now, will you explain to me what a grab sample is?

A Well, it is merely a sample taken at this moment or a given moment, sample of the stream water, or a sample of the outlet.

Q You catch it in a bottle, or --

A Well, depending on the character of the stream, we have for stream work, we have a sampler, weighted sampler, actually, a metal sampler, or weighted sampler into which we can place two approximately 300 millileter bottles which have entrance ducts at the top and in which we -- of which we completely submerge this. As a matter of fact at, I believe 4 and 5, as I recall, the sampler was used here. At some of the other parts of the stream, due to depth and not being able to utilize a sampler, then the sampler was not used. It was merely a matter

of collecting a sample in a bottle.

Q I see. Now, this whole survey that you report was made on one given date, as I understand?

A That's right.

Q And you made grab sampling at the control station which you have identified as Number 1, at 2, 3, 4, and 5, and you took two other samples between 3 and 4, is that correct, or did I misunderstand you?

A No, I think you misunderstood me.

Q Now, going from the control point again toward the north, did you notice any aquatic life in there like fish?

A No, I didn't.

Q Did you notice whether there were any, whether there was any plant life in there of any particular variety or kind?

A No -- well, yes, I did, as a matter of fact. In observing the physical condition of the stream, the stream, as I pointed out was clear, and the bottom was clean, and actually there was very little indication of any biological life that was visible to the eye. That is as far as, say algae or other type of plant life in a stream. It was actually clear, water was clean, and I did not observe any plant life of any particular type, no.

Q Is the bed of this stream generally from what you observed a rock bottom?

A Well, it at the control, as I recall, it was more of a

sandy bottom. It is a very, very small stream, you understand, but as I moved downstream, or in the area actually of the outlet, as I mentioned, there is this outcropping of stone in which this waste flows over, and then actually from about that point on down, rather large rocks, rocky bottom, and as I mentioned riffles created by these large rocks, relatively large rocks, and a very fast-flow stream.

Q Now, what about the depth of this stream, is it shallow or --

A Well, my observations would classify it as being shallow, relatively, even in the pools behind these riffles. Now, however, in the stream at Station 5, it was a much different type of stream again. Of course, it was much wider and whereas, I did not measure the depth, but it had all the characteristics of being much deeper.

Q Well, as I visualize Station 5, that is the point at which the Middle Fork Little Maquoketa River has been joined by this tributary apparently another stream, or whatever this line is that runs through 27 and 34?

A Yes, I think that happens to be a roadway, I think, is what this is intended to show.

Q But at Station 5 you have an accumulation of water from both this tributary and the Middle Little Fork River?

A That's correct.

Q Now, that depth of this stream, as I understand it, is

very shallow. In other words, I would say a foot would be maybe the average depth of the water that you observed at Stations 1, 2, 3, 1, 2, and 3?

A Well, yes, that would be on the strong side, I think probably.

Q That would be quite strong?

A Yes.

Q Now, you referred to back water behind obstructions at Station 2, I believe -- or 3?

A Yes.

Q And it indicated that there was some darkening of the river bed there which would in part, at least, contribute to your findings as to the bacteria and so on which you have referred to?

A Well, yes, not totally and wholly as significant because these points were not in the main body of the stream, you understand. There was some obstructions here and actually in the areas of the rock, behind the rocks on the upstream side of the rock, there was decomposition. In other words, no doubt fungus growth that was in a state of decomposition and this was black appearing. However, this doesn't mean too imply that there -- that this was in the width of the stream indicating a septic condition of pollution at this particular point. It was merely in the other, over side, you might say, you might say, or actually, it was on the right bank of the stream.

Q Now, you have described the discharge from the creamery outlet that had flowed over a rocky bank or outcropping into the stream. How much distance is there from the opening of the pipe to the stream approximately there, is that?

A I think I referred in my testimony approximately 100 feet, perhaps.

Q That it runs over rocky soil and then into the creek?

A Yes, it actually discharged from a line very near the ground surface, actually, and meanders over some flat ground, flatter ground and then merely drains off of this rock or outcropping.

Q Now, did you walk down this stream, as you made these samplings, or how did you get there?

A Yes, I was at Station 1, actually access to Station 2 and 1 was -- access was made from the creamery following our conference with the management and walked into the general direction of the outlet, not knowing exactly where it was. But Station 2 and 1 was observed and samples collected at accesses from that point.

Q Now, at that time, did you observe the old creamery site?

A I observed what I presume was the old creamery site on Highway --

Q 52?

A Yes.

Q On 52 and 3?

A Yes, that's right.

Q I see you have 3?

A That' right.

Q Now, did you notice or can you tell us whether the point of entry of this creamery product, from the old creamery and from the new creamery was in about the same general vicinity, down where the old creamery emptied into this stream?

A I presume it would be upstream further.

Q You think it was north of the control outlet?

A I presume it would be upstream further due to the typography of the area. The outlet for the Holy Cross Cooperative Creamery now is discharged on very much higher ground than what I assume the old creamery would be on the right bank, on the same bank of the stream.

Q We are agreed that the old creamery is across to the east, across this creek between the highway and the tributary creek whereas the present creamery is west of this?

A It is my understanding that the old creamery site sits here approximately (indicating), but no -- excuse me, here (indicating). This is my understanding. As far as the old creamery, I don't know anything about the old creamery as far as that goes. I just merely observed a building here and based on information, it was my understanding that the creamery was moved from one site to another site, and that in observing, in

making observations just generally, I happened to observe a building that I assume is the old creamery. I don't know, maybe it isn't the creamery.

Q You weren't concerned about the number of years, let's say that deposits have been put into this creek which you examined that day?

A No.

Q Would you be surprised to know that the old creamery was dumping this material into this same stream, let's say for 25 or 30 years prior to that date?

A No, that wouldn't surprise me a whole lot.

Q Would that have any effect on your finding, would you expect to find this growth that you describe or fungus growth on these rocks and so forth?

A I don't know what the old creamery was discharging, so I have no way of knowing what the condition of pollution may or may not have been prior to my investigation. I merely investigated the sewage and waste outlet from the existing creamery.

Q And what you found on that date could have been contributed from the old creamery and from the new creamery?

A No, I don't -- I don't hardly believe so, not from the timing involved. This new plant went in in April of, I think, April of '61, went into operation. I don't know how long the old creamery operated. Now, the point is that a condition of

pollution was, I mean, the fungus existed in the stream below this outlet, not above the outlet, and what, what character, I don't know the character of the waste discharged. I don't know whether it was butter or cheese. I don't have any idea. I am not in a position, actually, to have any opinion as to what the character of the former wastes were.

Q I think you stated that the end product of this operation here was cheese?

A Yes.

Q And I presume that you know that there was a butter manufacturing there as a primary enterprise of this business?

A --

Q You knew, too, that they manufactured butter at this particular creamery, did you not?

A At the new plant?

Q Yes?

A I perhaps have that, I don't know, I guess maybe I do.

Q And I would like to ask you another question, Mr. Shay. The distance between Station 3 and 4 seems to be considerable and I am wondering why no additional grab samples or testing was made for that distance, if you could tell me?

A Well, one reason is time, and another reason is northeast Iowa is not conducive to access, ready access to a stream. In observing this condition or in the making of

observations, I observed the stream at Station 3, I merely observed it at Station 4 to see what I found here. I found fungus; I found that the water was clarified, much clearer, actually, so I based on that and the difficulty in getting to this area, I feel that there was no reason to be in between. The point below is, I know what the condition is immediately below, and I know what the condition is some distance downstream. In between, the stream has to flow in its water course.

Q Do you know whether any of the stations at which you sampled were on the land of the complainant, Frank Simon?

A Station 3 was on Mr. Ellerbach's property.

Q Mr. Ellerbach, as I understand, signed the petition, he hadn't sent the letter, this letter is signed only by Mr. Frank Simon?

A That's correct, but the letter -- here again, the petition is the significant part of the basis of the investigation.

Q Yes.

A And it is required under statute.

Q Mr. Ellerbach is one of those signers?

A Mr. Ellerbach was a signatory, yes.

Q And did you notice whether he had any livestock there at that time?

A Yes.

Q And this is a pasture, is it?

A Yes, I would say probably. I think it was referred to

actually as kind of a permanent pasture. What do you term this, meadow. The character of the valley is such, I don't think it is used for possibly much more than pasture ground.

Q Did you observe at that point any spring emptying into this tributary?

A I didn't observe any and none was pointed out to me at this particular reach, no.

Q Well, who was with you at that time, you say "pointed out," was someone --

A Well, I went through the Ellerbach farm, the residence -- not the residence, but I went through the property of the Ellerbach -- of Ellerbach and in so doing, Mr. Ellerbach was there and I felt it appropriate to gain access through his property for this purpose.

Q He didn't point out to you any spring that fed into this tributary through his pasture? Or any additional water that cattle could be drinking?

A Not as I recall. However, during the course of this investigation, I was informed of, that there were streams. It was reported to me that there were one or two spring-fed tributaries, well, the best I could say, I think it was between 3 and 4, and here again at Station 3 it had very much the same characteristics as at Station 2, that is volume-wise, or in as far as I could tell in this manner, but so that I was merely informed during the course of this in conferring with several

people; but, as I say, I don't recall now just exactly who. It might well have been Mr. Ellerbach who pointed out spring-fed tributaries, that I don't know. I don't recall who pointed this particular, well, this -- who made this statement.

Q Well, at that point, what would you attribute your statement that this created a nuisance, the deposit that was in that stream at Mr. Ellerbach's farm, what was there that you would say was a nuisance?

A Well, the presence of fungus growth would constitute as a nuisance from a -- from a utilization standpoint, an interference there of a stream use. The physical appearance of it would be classified as a nuisance. A further point, at this time, temperatures were low, lower than there is at times, and there has been reported odors on the stream, and there is no question but what under conditions of warmer temperature that you are going to get breakdown of, that is degradation of this fungus material; it is going to sluff off and will tend to decompose and under these conditions, you will have an odor condition.

Q Would this fungus material also flush away in times of run-off or heavy rains?

A Yes, as your velocity of your stream increased.

Q And if it were gone, it wouldn!t be there to smell in case of -- or when the warm weather came, as you suggested it and the bed of the river, I presume gets narrower and so on and

so that this stuff would be out in the heat of the sun, and would bake, you might as well state, at least, I would, and that would cause the odor, but at the same time --

A There was no serious odor, what I would classify as an objectionable odor.

Q You are just presuming this on a reasonable expectation of what conditions would be in hot weather and no run-off to take this with it?

A This is based on experience.

Q Now, would some of this vegetation be actuallywhat we know as watercress?

A I don't believe it would be.

Q You observed no water cress at this point?

A I did not.

Q Did you at any point?

A Well, now, which point are we talking about?

Q At any other point?

A I didn't observe any. I'm not a biologist; I am not so sure I would recognize water cress, but I have an understanding it is green, I am quite sure I know what it looks like, but there was no water cress in the stream at that time that I observed.

Q You say there was no water cress in this stream?

A I observed none.

Q Now, you didn't make any sampling on any of the abutting

land or the riparian land of the complainant, Mr. Frank Simon, is that correct?

A I did not, no. No, as I understand, Mr. Simon's land is in the general vicinity, I think of Section 29 here. It sets back from the road and is somewhat removed from the creek or the stream. Station 3, actually was in the Ellerbach area. This was actually what I would call northwest of Mr. -- I think Mr. LeGrand's land at, at actually kind of a line so that I didn't sample in Mr. Simon's area.

Q Any particular reason?

A No.

Q Mr. Simon seems it complains or alleges that this is the only place his cattle have to drink in this particular pasture, and I presume that would also be an allegation of Mr. Ellerbach. Have these facts, or those facts, been substantiated by you in your investigation in any way at all?

A Yes. In conferring with the complainant and these two gentlemen, as I pointed out in the report, the stream is used for livestock watering purposes --

Q But you did not investigate to determine whether there are any additional spring waters running through these same pastures that they are complaining of, I think Mr. Simon states that he had to furnish water to his animals from a well?

A That is what I was informed.

Q You didn't make an on-the-spot investigation to verify

that fact, did you?

A No.

Q Did you receiving any report during your investigation that cattle had become sick or that there were any results of that kind? Your report is silent as to that, and I wondered whether you made such investigation, and if you did, what it was?

A No, there was no report, as I recall of sick cattle or lost cattle.

Q There wasn't any tangible injury to any of this land except for the outcropping of some fungus growth that you have described?

A There was very profuse fungus growth observed in the stream, and there was -- there was influence indicating depressed oxygen condition in the stream, and there was coliform discharging in the stream.

Q The oxygen conditions are those that you mentioned in your report as to the amount that you found on these various places comparing it with the control point?

A That's right, the effect of the discharge.

Q And did you observe any aquatic life, talking about fish, anywhere above Station 5?

A I did not observe any fish above station 5.

Q I would like to pin down, if I could, Mr. Shay, what you say constituted the nuisance to Mr. Simon and Mr. Ellerbach who live along this stream, is it this? And I think

this is what you stated, that the growth of this fungus or plant life, which you attribute to the fact that the deposits from the creamery have been entered into the stream, and that this plant life has a possibility in the summertime of being exposed to the sun in a dry bed, partially dry anyway, and thereby cause an odor and also that this plant life being present there in your opinion might have some effect on whether the cattle are going to drink out of this water, am I correctly stating your summarizing, your position on that? You made the statement that --

A I made the statement that it is my opinion that the presence of this profuse fungus growth constitutes a nuisance in the stream, and further that -- that there is further nuisance by the fact that it is organic in nature and subject to breakdown and would support that odors, objectionable odors from this stream can result.

Q Let me ask you whether when you say profuse growth, you mean that this stream is covered over with growth?

A The whole bottom of the stream was covered with growth.

Q But the water is above the growth?

A Well, yes.

Q It is not choked off is what I am getting at?

A Yes, I would hope not, but the stream bottom was literally covered in the reach from about Station 2 down through

3, and in the area of 4. There were very profuse growths in the stream, but not of such wide-spread distribution, but the entire stream bed was absolutely covered.

Q Talking about theareas closer to the creamery which are to say, which seem to be the affected areas, there is plentyof room for a cow or other animal to take a drink of water out of this stream if it wanted to take it, there would be no interference in that way?

A The stream is accessible in the areas that I saw for livestock watering and there is no reason that a cow couldn't take of this water.

Q Did you, in fact, notice an animal drinking the water while you made this investigation out of this stream?

A I did not.

Q But you did see animals pastured along the Ellerbach farm?

A That's correct.

Q Now, I don't know whether you go into any of the signers on the petition, do you determine who they are or what their interest might be, or was there any work done like that?

A I conferred with Mr. Ellerbach and Mr. Simon and made an attempt to talk with a couple others, which I was not able to do. The petition is duly submitted. It is 25 residents or more of the State of Iowa, and that is sufficient to require

an investigation.

Q I agree with that, but earlier I am sure, you said these were interested people, and I wondered --

A I did not make that statement.

Q Maybe you didn't. I picked it up somewhere here this morning. Someone said, signed by 25 interested people, and I wondered whether you investigated any of these people other than Mr. Simon and Mr. Ellerbach?

A I interviewed Mr. Simon and Mr. Ellerbach.

Q And that is all?

A That is all.

Q As far as the rest of these people are concerned, you only know they are in Iowa because they state so, Farley, Independence, and Cascade, and so on?

A I want to make this point. I did contact another gentleman, Mr. Heiderscheit. I don't know, it would be over here someplace where you turn off the school and meander back through a lane, and I did contact a Mr. Heiderscheit.

Q Do you know whether there is any requirement as to the age of the people who sign this petition?

A Twenty-five residents of the State of Iowa is what the law provides.

MR. DEGNAN: I have no further questions.

THE COMMISSIONER: Any redirect?

MR. BIANCO: No.

(Whereupon, at 11:15 a.m., a short recess was had; and hearing was resumed at 11:30 a.m.)

THE COMMISSIONER: You were through, were you, Mr. Degman?

MR. DEGNAN: Yes, thank you.

THE COMMISSIONER: Frank, did you have any redirect?

MR. BIANCO: I believe Mr. Houser wanted to ask some questions.

REDIRECT EXAMINATION

By Mr. Houser:

Q Mr. Shay, you explained how the 5-day -- or the significance of the 5-day BOD tests, and will you explain how this test is made, what is the -- just briefly how is the BOD test made?

A Well, actually it is made on the dilution basis -- in other words, a portion of the sample is placed in a, about a 300 millileter bottle with a glass stopper top secured so that air cannot gain access or leave the bottle. These are incubated, these portions, these samples then are incubated with a water seal for a period of five days at 20 degrees Centigrade, and then the samples are taken and dissolved oxygen measurements are made. In other words, at the beginning here you have an oxygen concentration; and at the end of five days, depending on the demand, you have a lesser oxygen so that the utilization of the oxygen occurs, and then based on what dilution

factor you have involved here of the material that you are referring the -- running the BOD on. That is a mechanical computation for "X" BOD.

Q In other words, you measured the dissolved oxygen content of the sample of water as you take it from the stream?

A Yes.

Q Then you set aside another sample of that same stream water and, in a stoppered bottle so that it has no opportunity to pick up oxygen from the air, and at the end of five days, you will again measure the dissolved oxygen, and the difference is the BOD, that is the amount of oxygen absorbed in a close stoppered bottle?

A Yes.

Q Now, in your table of data, page 10, you show the dissolved oxygen content under stream water under DO, and you also show the BOD. where you show a DO of 4.7 parts per million at Station 3 and a BOD of greater than 200 parts per million. If this sample of water was under ice coverage, for example in the stream where there was no opportunity for re-aeration, what would you expect the dissolved oxygen in that stream to be?

A Zero.

Q Zero?

A Yes.

Q In the absence -- that means that there is no dissolved oxygen?

A Yes.

Q Now, in the absence of dissolved oxygen in the stream, you mentioned that it takes a certain amount to support fish life?

A Correct.

Q So that if there wasn't any, the fish would suffocate or smother?

A Yes.

Q Also you mentioned that in the absence of dissolved oxygen in the stream water that you get putrefaction of the waste materials that are discharged which would include creamery wastes and whey and so on, isn't that right?

A Yes.

Q Now, when you get putrefaction, isn't it true that you get very offensive obnoxious odors?

A Yes.

Q Wouldn't it be quite likely that cattle that used this stream for drinking purposes and a farmer pastures them because the stream was there, that these cattle, these animals would refuse to drink this water because of the obnoxious odors?

A This is possible.

Q And you have -- you know that as a qualified sanitary engineer becsuse of the conditions that we are talking about, the putrefaction of the waste products in this water that create these objectionable odors?

A Yes.

Q You made investigations of stream pollution conditions in other parts of the state?

A That is correct.

Q Have you observed conditions similar to this and then also where you have these obnoxious odors present?

A Very definitely.

Q And you have been informed by the same basis of complaint, that farmers say, well, their cattle refuse to drink the water?

A That's right.

Q I want to clarify this thing because I don't think it was only the fungus that was causing this condition, it was also the putrefaction of the solid material present in the wastes that would cause these objectionable odors?

A That is correct, yes.

Q And the absence of dissolved oxygen?

A Yes.

RECROSS EXAMINATION

By Mr. Degnan:

Q Mr. Shay, if in fact cattle are and have been constantly drinking this water out of this very stream, does that disprove the factual findings that you have on Table 2?

A Does it disprove?

Q Yes?

A There is no conclusions drawn there from that standpoint.

Q Let me ask this question so my position is clear here: It seems to me that you have said as a sanitary engineer, studied and specialized in this particular field, that under the conditions that you find, cattle will not drink this water because of the putrefaction present?

A Conditions as may exist in the absence of oxygen.

Q Would this be existing at the time that you tested this, made this survey?

A Well, the Table indicates that there was oxygen.

Q There was oxygen. Are we saying that we have to have a complete absence of oxygen for putrefaction, to substantiate the answer you made that cattle will not drink this water because of putrefaction?

A This is a factor, I believe, in perhaps not drinking the water from the standpoint of again, quality, and associated odors or associated odors with the water.

Q Now, to go back to my original question here, if it is a fact that livestock does drink the water out of this stream, what does that mean to you as an engineer who has made this survey?

A Well, they may not be as particular a cattle, as far as I know.

Q All right, but some cattle -- I don't want to seem

facetious, but some cattle aren't more particular than other cattle about what kind of water they are drinking, are they?

A I wouldn't suspect so. However, I have no reason to know what the cattle are thinking. of as far as consuming the water.

Q I think we both agree to that. And now, I think you also stated that this conclusion that you have drawn is not only based on your survey here, but on questions propounded to you by Mr.Houser, it is based on other surveys that you have made around the state?

A Well, thisconclusion is based on the findings made at this time.

Q Table 2 on page 10 are?

A Well, that merely is supplemental data that we merely, that is in the report.

Q That is the result of your particular survey?

A Yes, observations and interpretations of this data is a conclusion upon which this is based, and further they are based on experience of investigations in the other areas. The conclusions, however, are not specifically drawn from some other stream, but to this stream. The conclusions relate to the stream under investigation.

Q In fact, you are trying to put into this record that in addition to what you said prior to our coffee-break, that in addition to the fact that there was fungus growing in this water,

cattle, also, in your opinion would not drink it because of putrefaction?

A This could be.

Q This could be, but you won't say that it is a fact from your survey of this stream? This is the result of your education and experience about other surveys?

A Yes, and the character of the waste discharged.

Q In other surveys as well as this one?

A Well, based on the character of the waste and the nature of the waste being discharged into this stream, and such characteristics being capable of exerting a demand and being capable of depleting the oxygen resources.

Q Now, you are also basing this answer on the fact that there would be a complete absence of oxygen?

A This is very likely that this could happen, yes.

Q Isn't it true also that the plant life, the aquatic life that you refer to comes into being from the lack of oxygen in the water, that caused the plant life to grow?

A The fungus?

Q Yes?

A No.

Q It does not?

A As a matter of fact, it requires a certain amount of oxygen in the water, not an optimum amount, actually, but what they term sewage fungus.

MR. DEGNAN: No additional questions.

MR. BIANCO: That is all, thank you.

(Witness excused)

HARLAN FRANKL

was called as a witness on behalf of the State, and being first duly sworn by the Commissioner, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Bianco:

Q State your full name, please?

A Harlan J. Frankl.

Q Where do you live, Mr. Frankl?

A Guttenberg, Iowa.

Q What is your occupation?

A State conservation officer.

Q How long have you been a state conversation officer?

A Approximately ten years in the state of Iowa.

Q I assume you have heard the testimony given this morning?

A Yes.

Q Were you at one time stationed in the district in which is contained the area shown on this plat?

A Yes, sir, I was stationed there from 1954 until late 1957.

Q Then have you had occasion to observe this reach of stream that has been talked about this morning?

A Yes, many times.

Q What have you observed in your experience there as to fish life in the stream in question, or other aquatic life?

A May I use the chart here?

Q Yes.

A At the time that I was in this area --

Q There is a pointer right back in the corner there if you want to point --

A That's all right, I can use it here.

I would say approximately, it's a little hard to tell from a map like this, but in approximately where the 28 is in this particular section, from there on down, the fish life, aquatic life was present and in some areas in great numbers. Now, this entire area from my knowledge of several years ago was a favorite place for minnow dealers, as an example, to seine chubs, shiners, and so forth. Also there were some small-mouth bass from here on down, from number 5 on down, and smaller fish like minnows, chubs and shiners from there on up.

Q Now, how far up would you say from Station 5 upstream did you notice minnows?

A I would say almost a mile. Now, most of those observations were in the fall of the year, primarily during trapping season when I would have occasion to walk the stream as

it narrows on down and gets that size. Normally we are not fishing, we are not looking for fish in an area like that.

Q Was it last year you were there, you say?

A 1957.

Q '57?

A Yes.

Q And your experience -- from your experience as a conservation officer, what conditions are conducive to the spawning and growth of fish life?

A Well, primarily clean water, clean bottoms, preferably sand. Of course, that will vary to some extent with the species of fish involved. The species we are talking about here primarily is minnows, chubs, suckers, and so forth, like sandy bottoms, both submergent and some immergent aquatic vegetation.

Q Now, in your observations of the stream, what was the condition of the bottom of the stream during the time you were stationed there?

A Well, as near as I can recall, in fact I know that the water in the neighborhood of this 28 was clear. The water itself was clear from there clear on down the river. The bottom in some areas was rocky. There was some siltation, as I recall in this general area where this Middle Fork comes in. There was some sediment there. This wasn't a clear rock bottom, but the bulk of that is a sandy, rocky bottom.

Q Now, you heard Mr. Shay testify that he had observed this stream from the head of the stream down to Station 5 and that approximately the entire bed of the stream was covered with fungus growth. Tell us in your opinion, from your experience, what effect this fungus growth would have upon fish or aquatic life?

A I don't know as I am really qualified on that. From my experience, I will say that the streams that I have observed with a fungus-covered bottom, fish are simply not present.

CROSS EXAMINATION

By Mr. Degnan:

Q Mr. Frankl, were you in this area for purposes of observing the bed of the creek and the aquatic life anytime since '59, '60?

A No, sir.

Q And this number 28 that you refer to is apparently a stream or spring shown entering into this tributary we are talking about in Section 28, is that correct?

A No.

Q On the map?

A Let me tell you, I am not referring to this tributary stream, that one I don't recall. I am judging from the distance up the road and where these other lines go in, which is about the only way of estimating the distance. If you have ever walked that valley --

Q Now, you were here during all of this hearing this morning, were you not?

A Yes.

Q And did you in fact hear Mr. Shay say that he walked the entire distance and observed the bed, this river bed filled with vegetation and growth, did you?

MR. BIANCO: I have to object to that question. I don't think he testified he walked the entire distance because of difficulties of access. He went in at Stations4 and 3, and the reaches between 3 and 4 were too rugged, I guess to walk to.

MR. SHAY: Just merely not being familiar with the area, they weren't conducive to access, let me put it that way.

MR. DEGNAN: Let me say that is exactly the way I understood Mr. Shay's testimony, but I understood your question to be a little broader, Mr. Bianco, and Mr. Frankl stated "yes." He denoted that --

A What was that I stated?

Q (By Mr. Degnan) You stated in an affirmative answer to the question which was based on the fact that Mr. Shay made a full investigation of this stream.

A My answer was not yes. I didn't answer that question.

Q In other words, that would not be true?

A I didn't say that either. I don't recall him making that statement, Iwill put it that way.

Q What would you say -- let's straighten it out here.

A I will put it this way. I don't recall Mr. Shay making the statement that he did walk that whole area.

Q Well, as to any of the area, you haven't been in there in the last couple of years, have you?

A No.

Q You don't know now whether there are fish there or not?

A No.

Q You don't know anything about these complaints that the farmers have made as to whether their cattle drink this or not?

A No.

MR. DEGNAN: I have no further questions. That is all, thank you.

MR. BIANCO: That is all, thank you, sir.

(Witness excused.)

ROBERT D. FAGERLAND

was called as a witness on behalf of the State, and being first duly sworn by the Commissioner, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Bianco:

Q Would you state your full name, please?

A Robert D. Fagerland.

Q What is your occupation?

A I am the conservation officer in Dubuque County.

Q How long have you been stationed there?

A Since January of 1958.

Q Have you had occasion to observe the stream that has been discussed here this morning as shown on the plat behind you?

A As a part of my work, I tour through that area and on occasion, yes.

Q What have you observed as a condition of the water, if you recall?

A Would you clarify that question? What do you mean, the condition of the water?

Q Just state your observation as to the appearance and condition of that stream from the head waters there down to Station 5 as shown on the plat?

A Well, again, because of the rather narrowness of the stream, and in the upper area, generally, the part that I work would be only perhaps a mile up from Station 5. In other words, the area farther up normally I don't patrol unless I have a complaint on trapping or something because as far as pole-line fishing, the water is too restricted to provide any fishing in that area. But as far as the lower area is concerned, as far as the character of the water is concerned, the appearance, I can make no statement that it is any different than

any other creek. In other words, I observed no discoloration outside of any normal discoloration from rains and so forth and so on.

Q Did you notice the bottom of the stream at all?

A Well, again, not being a biologist -- I have noticed that the rocks have different growths on them. I couldn't state as to what those growths are.

Q But you did notice them covered with growths?

A That's correct, yes.

Q Do you know what the character and nature of the growth is?

A No, sir, I do not.

Q You are not familiar with that?

A No, sir. I could tell you the color, probably depending on the season of the year. It usually seems rather a brownish.

Q Brownish?

A Brownish color.

Q Now, is there a park in the area there around, let's say Station 4?

A Yes, sir, the County Conservation Board in Dubuque County bought a park in the area of 4 and down through 5 of something over 100 acres that they bought from a Mr. Schieltz, commonly known as the English mill area, that they bought, I think back in about '57 or '58.

Q What, if you know, is the plan of the County Conservation

Commission with reference to that park?

A The County Conservation Board is presently having a person from Iowa, University of Iowa, investigating the feasibility of impounding water there, the idea being because of the limestone outcroppings and fractured stone in that area, that they wanted to make a thorough study before they did any work to see if it would hold water and so forth.

Q Assuming that they can build -- did you mention building a dam?

A Yes, sir, I say they are going to try to build a dam and impound about 20 or 30 acres of water.

Q And what would be the purpose of this small lake that you are speaking of?

A Well, it would -- it would serve several purposes. The more important from my standpoint would be that they would attempt to stock fish in the area and utilize the fish that are native to that region and try to provide fishing for the sportsmen of the county in that part of the state.

Q Would they also be interested in having what would be termed a spawning area above the lake?

A Certainly. That would go into it. Small-mouth bass, in the last several years, we have stocked approximately 500 small-mouth bass around area 5 and 4 as a supplemental aid. A small-mouth bass are a rather finicky fish. In other words, their spawning habits are such that they spawn in that season of the

year when the water is quite high and often the spawn is lost, so we try to supplement the natural reproduction with fry, and they have a tendency to ascend streams to spawn. They go up into very restricted areas such as you get into when you get up past this one fork here.

Q In Section 28.

A Yes. They will go up into those areas and spawn and then descend the streams again and the spawn will generally stay in those areas until they reach three or four inches, finger-length size, and then will drop into the lower part of the stream. That upper part doesn't provide holes and so forth that are conducive to larger fish living in, but provides a nursery-type atmosphere for the protection and growth of smaller fishes.

Q And, of course, there is a corrola to that, the area in which they spawn must be clear water and proper bottom on which they can feed and proper vegetation on which they can feed?

A That's right. They are more susceptible to mortality when they are smaller, of course, when they are first hatched out, and that part of the stream does have the gravel and sand that would be conducive to spawning.

Q But if the environment wasn't proper, then it would be detrimental to it, it would be of no value?

A That's correct, yes.

MR. BIANCO: You may cross examine.

CROSS EXAMINATION

By Mr. Degnan:

Q Mr. --

A Fagerland, F-a-g-e-r-l-a-n-d.

Q Did you also plant some fry in the Middle Fork Little Maquoketa further up from Station 5 at any time since you have been the conservation officer of Dubuque County?

A No, sir. I have usually planted them in either 4 or 5, in that area. I could tell you the reason why.

MR. BIANCO: Go ahead.

A Because we receive these fry in usually the latter part of August or early September, a rather warm part of the year, where mortality is quite high with the trout and small-mouth and so forth, we can't carry them too far without losing a certain amount of them through -- because the oxygen is lower. We carry them in buckets and so on and so forth, so that we usually stock them in those accessible areas. It isn't altogether that we are lazy, a lot of it is through we feel that we can get more of them put into the stream that way and have them live.

Q Can you tell me when you made the last stocking?

A Yes, it was either last August or last September.

Q Sometime at the end of last summer?

A Yes.

Q And in your opinion, that was a good place to put these

fry, small-mouth at this time?

A Yes.

Q Now, you go in and out of this area at undetermined times, you couldn't fix a date other than the dates that you stock these fish about which the time you referred to?

A That is -- you mean, you want the exact dates that I stocked them. I could get that for you because they came from the Decorah hatchery and they keep a record of this, when they came and went.

Q But you know that it was late last summer?

A Yes, it was in the August, September area, and they would be very happy to give you that information if you would like to have it.

Q Thank you, I wouldn't request that. I am satisfied with your answer.

A Okay.

MR. DEGNAN: That is all.

REDIRECT EXAMINATION

By Mr. Houser:

Q I would like to get this exactly straight, Mr. Fagerland, now where is the proposed location of the dam? Is that at the tributary or on the Little Maquoketa, could you point to it and say --

A It's approximately in this area. This land rather encompasses an area something like this, and the proposed area for

the dam -- this is a proposed site, hinging upon the recommendations, I believe it's the hydraulics engineer down at the University of Iowa, that this is in sort of the downstream end of this property -- like that (indicating) where they felt they would gain the most area without running into a problem. As you know, when you dam up any current or body, you have to have the permission of the Water Resources Council, and so forth, to do that, to dam up a stream, so they will have to make sure that they don't have back water on to someone else's property, and so forth and so on. It will have to be studied quite thoroughly. There is quite a few springs in this area right down in here.

Q (By Mr. Bianco) That is right near Station 5?

A Below Station 5.

Q Below Station 5?

A The lake itself would be contained below Station 5, but it is a little over 100 acres. You can see that it wouldn't be, --

Q That is in the corner there, in the corner where Sections 33 and 34 join, the southeast corner, is that correct?

A Yes, it would be approximately.

Q Approximately there?

A If I had a Dubuque County map, I could give you a much --

Q That is close enough.

MR. BIANCO: That is all.

RECROSS EXAMINATION

By Mr. Degnan:

Q In your experience as a conservation officer, how far away would you say this proposal is to becoming a real thing, in years?

A I would, I can only tell you what the Board's hopes are.

Q I would rather have your opinion?

A I would say that -- this is '62, I would say that it will be in if it is feasible -- now, I couldn't say that they are going to do this. They have to get these recommendations from this engineer, but his preliminary recommendations have been quite good because he felt the volume of water is such that it will off set any seepage that they have through the hill and through the dam, but I think there is no doubt that it will be in by next fall. I am speaking of next year -- it will be the September of '63 that it will be in if the recommendations from Iowa City are such that it sounds like it would be feasible. Now, what they have to do as soon as they get a good report, they will have to submit those plans to the State Conservation Commission for their approval. The County Conservation Board can do nothing without the State's approval. That might take a certain time, but they hope to get started this summer, but I would say it would be started for sure by the fall of '63.

Q All these if's? If they are --

A Well, if they find that, of course there is no guarantee that it will hold water, but they will attempt it if they get a good report.

Q Now, you have drawn your line just short of the point of entrance of this tributary of the Middle Fork Little Maquoketa River?

A Yes. This is approximately.

Q Approximately?

A Yes.

MR. DEGNAN: No further questions.

MR. BIANCO: That is all.

(Witness excused.)

MR. BIANCO: That is all we have at the present time, Mr. Commissioner. It is after -- a quarter after twelve.

THE COMMISSIONER: What is your pleasure, have you got a lot of witnesses?

MR. DEGNAN: We have four men that we would like to call, and I don't believe any of them will take any considerable amount of time, Doctor.

THE COMMISSIONER: Would you rather go ahead or stop now for lunch?

MR. DEGNAN: In view of the weather, I believe we would like to go ahead.

(Discussion off the record)

AL PFEILER

was called as a witness on behalf of the Offenders, and being first duly sworn by the Commissioner, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Degnan:

Q Mr. Pfeiler, you are the chairman of the Board of Directors of the Holy Cross Creamery Association?

A I am.

Q And you have been since the beginning of this creamery as a co-op?

A Since it become a cooperative, yes.

Q And how long -- do you know how long the Holy Cross Creamery has been dumping the milk products into the tributary we are talking about this morning?

A According to the plat, that creamery has been in existence since about 1893.

Q And do you know whether there has ever been any complaint from anyone during the time of your memory?

A I don't -- no.

Q And how long a time have you served in one capacity or another on this creamery board?

A Since 1957.

Q And prior to that time did you live in this immediate vicinity?

A I have been living on the same farm that I am on now for almost, well, to be exact, 29 years.

Q And you had this notice served on you by the Dubuque County Sheriff?

A Not on me personally. It was left at the office of the plant.

Q But you are here today in response to that notice?

A That's right.

Q Mr. Pfeiler, do you know whether you have in your employ a consulting engineering firm?

A I do.

Q And is that the firm of Bartels and McMahon in Dubuque?

A Yes, sir.

Q And have you, in fact, engaged this firm to make a study of conditions concerning the waste products from your creamery?

A We have, yes.

Q And have you advised this engineer to file such study with the Department of Health?

A Yes.

Q And has he, in fact, filed it?

A I understand that he has.

Q And then is there a program in the future to do something about the waste products coming from this creamery as your business increases?

A Yes. That was in the plan. However, at the present time, due to the financial conditions, it is almost impossible.

Offenders' Exhibit A marked for identification

Q I hand you, Mr. Pfeiler, exhibit A and ask you if that is a financial statement for the Holy Cross Creamery for the year 1961?

A That is correct.

Q And does it show the total volumeof business, the number of pounds of butterfat handled, and so forth?

A Yes, it does.

Q What is the total volume in dollars?

A $965,765.

Q And how many patrons do you have at that creamery, do you know?

A It is something over 200.

Q And do you know whether or not Mr. Ellerbach is a patron of this creamery?

A The Ellerbach on this petition is not.

Q And do you know whether or not Mr. Frank Simon is a patron of this creamery?

A I know that he is not.

Q And have these gentlemen ever made any complaint to this creamery at any time in writing or otherwise concerning the

conditions along this stream?

A Not to my knowledge, they haven't.

Q Has any farmer along this stream ever complained to you or the Board at any time about the detrimental effects of this water on their cattle or that their cattle don't drink it, or that the odors are foul or anything of that nature?

A Not to my knowledge. There hasn't been anyone approach me.

Q Do you know of anybody ever using this as a fishing area? I am talking about the point now, from what has been designated as Station 4 on the map, there on the blackboard, up to the place that you dump into this creek?

A No, I wouldn't know because I don't live along or close enough that I would be able to observe anyone.

Q Do you know the approximate distance of the farm buildings of Mr. Ellerbach to the stream or the creek bed that we are speaking of here this morning?

A Not exactly, not right to the foot.

Q Give us your approximate guess?

A Oh, I would say at least a quarter of a mile.

Q Just a guess?

A Just a guess.

Q And would that be off as it is a guess -- would you state about how much you think you might miss that one way or another?

A I could miss it another 40 or a quarter of a mile.

Q Another 40 acres?

A Quarter of a mile

Q Now, as to Mr. Frank Simon's buildings, how far are they from this tributary?

A I couldn't answer that because I have never traveled from his buildings to -- I have been to his buildings, but I have never been from his buildings to the stream. But I -- I am assuming that it is quite some distance.

Q And will you state to this body what your product is that is produced at this creamery?

A Well, we receive the whole milk and, of course, put it through the process to remove the fats from the milk and turn it into butter. And most of the skim milk then is processed into cottage cheese.

Q And in fact, is the product that you put in this stream then simply diluted milk, the milk which has had these fats taken from it?

A That's right.

MR. DEGNAN: I have no further questions.

CROSS EXAMINATION

By Mr. Bianco:

Q When you speak of diluted milk, do you mean whey?

A Well, we have a tank, a 17,000 gallon tank on the side of the building where this whey is put into, and farmers are

hauling it for hog-feeding purposes. It was most of the -- last summer we had such a mad scramble there, we had, almost had to stand out there with an officer and police the traffic in order to keep them from fighting for it. We had to put some restrictions on it, certain times of the day that they could come in and get it, or they would be standing there waiting for whey all the time.

Q Now, how long has this present plant been in the location where it is now?

A Well, it has been in operation since about April 15, of '61.

Q April 15 of '61?

A I believe. It was somewhere around that date that it started operation. However, operations were going at the old plant just below it prior to that.

Q The old plant is on the west side of the stream, also is that right?

A Yes.

Q Now, then, all of the whey that hasn't been taken by farmers for hog feed, then that has been dumped into the stream, is that correct?

A I imagine there is some of it had to go down there.

Q Now, what other wastes go into the stream from the plant besides the whey?

A Well, --

Q Toilet wastes?

A Yes.

Q Sanitary?

A Yes, wastes.

Q Floor washings?

A Floor washings, that would be it.

Q All that goes into the stream?

A Yes.

MR. BIANCO: That is all.

Q (By Mr. Houser) I would like to ask one question. When did you start manufacturing cottage cheese, is that when the new plant went in, or was the old plant, too?

A No, we weren't manufacturing cottage cheese in the old plant. That was the reason we built the new plant because we didn't have room in the old plant.

Q So that there was no whey produced prior to the new plant?

A No.

MR. HOUSER: That is all.

REDIRECT EXAMINATION

By Mr. Degnan:

Q There was cottage cheese produced almost from the very beginning that the new plant was opened, is that right.

A Oh, yes.

Q That was in April, was it?

A Yes.

Q And the amount of whey that was, had been dumped in the stream would probably be a normal amount that would go into it generally speaking at any time through the operation of this plant?

A That's right, yes.

Q And it's just the whey that escapes getting onto this tank where the farmers pick it up?

A That's right.

Q Which is a very, very small amount?

A Small amount.

Q Now, a question has been brought to you concerning toilet wastes, you I presume have the usual septic tank arrangements, and so forth?

A That's right.

MR. DEGNAN: No further questions.

MR. BIANCO: I have nothing further.

(Witness excused.)

MR. DEGNAN: I would like to call Mr. Heiderscheit. We will offer this exhibit.

MR. BIANCO: No objections.

THE COMMISSIONER: It will be admitted.

MAT HEIDERSCHEIT

was called as a witness on behalf of the offenders, and being first duly sworn by the Commissioner, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Degnan:

Q Your name is Mat Heiderscheit?

A That is right.

Q You are a farmer living on this stream that we are talking about here today?

A My land is on this stream, yes.

Q And you are in fact --

A This stream runs through my land, yes.

Q And you are in fact the farmer that Mr. Shay indicated he had talked to this morning by the name of Heiderscheit, are you not?

A That is right.

Q Do you remember speaking with him at the time that he was making this survey of this creek?

A I do.

Q Now, Mr. Heiderscheit, approximately where on that map does this stream traverse your property?

A I believe it runs in this way. (indicating) It would run about in here. I have a set of buildings --

MR. BIANCO: What sections are those?

MR. DEGNAN: 29.

A This is 28, and then on down further, then there is a 40-acre length of land there, and then it runs through mine again. That would be up in here because there is another stream coming in just above this stream where I have 20 acres of land, just above this stream, I have 20 acres of land in there.

MR. DEGNAN: Let the record show that all of this area is north of the drawing showing a stream entering the creek, the subject of which we are talking this morning and on up to the south section line of Section 20.

Q (By Mr. Degnan) Mr. Heiderscheit, your land is south of Mr. Ellerbach's land? You join Mr. Ellerbach on the north, is that correct?

A Well, there is a farm in between. I don't join Mr. Ellerbach's land right across. There is a three acre length in between there.

Q You join Mr. Schieltz' land?

A That's right.

Q Now, the first farm owner from the point of where this waste is dumped into the creek is Mr. Schieltz, isn't that correct?

A That's right.

Q Now, and then Mr. Ellerbach's land is traversed by a bend in this stream?

A That's right.

Q And then it comes through your land?

A That's right.

Q And then Mr. Simon's land as another curve in this stream traverses a part of his land?

A That's right.

Q And then it goes back into your land?

A That's right.

Q And then again through a smaller part of Simon's land?

A That's right.

Q And then into a farmer named Nick LeGrand's land?

A That's right.

Q Now, that is the general picture?

A That's right.

Q Now, do you have any pasture land down on this creek or stream or tributary?

A It is all pasture through that area in there, it's rough.

Q Is it good pasture land?

A Well, it isn't a good pasture land, but there is grass there, and we have young stock and dry milk cows. When their milk starts to dry, we turn them into this pasture.

Q Is the reason for that that this land is so far from your buildings that you don't consider it good pasture to keep your milking herd in?

A Well, it's not a good pasture for a milk cow when she is

milking and it's unhandy for us to get to.

Q Do you know whether or not your cattle drink out of this stream?

A Yes, they drink out of this stream.

Q Have you observed them drinking out of this stream?

A Yes, I have observed them drinking out of the stream.

Q Has there been any bad effects to your cattle or to your milking herd because drinking out of this stream?

A Not to my knowledge, there hasn't been.

Q Have you had any sickness in your cattle attributable to this water?

A No, we haven't.

Q And have your cattle been drinking out of this stream since April when the new plant, the Holy Cross Creamery plant started dumping into this stream?

A Yes. On the other farm the barn where the cattle are is about 20 feet from the creek where they drink out of.

Q I will ask you, Mr. Heiderscheit, if you are familiar, have personal knowledge of most of this distance traversed by this stream?

A Yes.

Q Were you born and raised right in this area?

A Well, I was born about a quarter of a mile east of Holy Cross, but I have lived down in this area for 25 years, 26 years, I guess.

Q And, you, of course, know Mr. Ellerbach and Mr. Simon?

A Yes, I do.

Q And are you familiar with their land, have you personally been on their land?

A Yes, I have been on it.

Q This stream that I am talking about?

A That's right.

Q And do you know as a matter of fact that there are springs on their land in their pasture land?

A Yes, there is springs on it.

Q And is there springs?

A Yes, there is springs in that area.

Q And I have been talking about Mr. Ellerbach and Mr. Simon's land?

A That's right. There is springs on both of these men's land.

Q And is the water readily available to cattle in this pasture land from these springs you have just spoke about?

A Yes, there is.

Q And this is also true of Mr. Simon's land -- or cattle, whom he alleges to have to be fed from a well, had to be given water from a well, there is a definite spring in his land, is there not?

A That's right.

Q And isn't it a fact that you have drank water from this

from this spring, from these springs in the summer as you were working there in that field?

A Yes.

Q And why?

A Why, because there is a good spring there, and I was dry.

Q This is good spring water, this isn't something you tried to do because you knew about this hearing, is it?

A No, it is not.

Q This is something that you recall having done many years as you were down in that vicinity?

A That's right.

Q And have you observed cattle of Mr. Simon's and Mr. Ellerbach's actually drinking out of this tributary?

A No, I don't believe I ever have. I have seen the cattle in the pasture, but I haven't seen them drinking there. I have been through there when they was in there.

Q Do you recall if this stream is all grown over with vegetation?

A Well, you mean --

Q Is it full of weeds or any variety of weeds?

(Discussion off the record)

THE COMMISSIONER: Do you recall that question?

A There was weeds until the flood went and tore them all down.

Q And there is quite an area of water run-off, isn't there? There is a rough, hilly place which drains into this creek from some distance back on each side, isn't that correct?

A Yes, there is a lot of water goes through when it rains.

Q When you get any kind of a rain, you would get a pretty good run-off of water down through that area, isn't that right?

A That's right.

CROSS EXAMINATION

By Mr. Bianco:

Q Mr. Heiderscheit, how many acres are there in your farm?

A We have 270 acres.

THE COMMISSIONER: Louder.

A 270 acres.

Q Is that all in one piece?

A No, there is -- there is a 20 acre tract over in a, well, taken off of the Simon farm.

Q Now, I think you have told me your farm is located in this area of Section 28, where this small stream joins the tributary we are talking about, is that right?

A Well, this is Highway 52, and there is a school house up in here where it comes down in here. I will join just exactly--

Q Is there -- this is a whole section here, you understand? This is 640 acres.

A This isn't square down in here.

Q It isn't square down in that country?

A I don't think so. Our land runs for, I think -- this is hilly ground down in there. Our land runs for, I think it's a mile down this way, and over and back up, and then up an 80 and so -- and up in here is where there is a "V", 20 acres that is cut in a "V". This is 80 acres cut through there.

Q Okay.

A And then this stream runs through different places.

Q Now, tell me this: Is the LeGrand farm north or south of your land?

A South.

Q South. All right. Is the Simon farm north or south of your land?

A Well, it's south and in between I suppose you would call it. We have land and then he has some and then we have some. His is on the south side, that's right.

Q Now, this tributary runs through the Simon farm and your farm and the LeGrand farm, doesn't it?

A That's right.

Q Now, is the Ellerbach farm north of your land?

A It's south.

Q What?

A Oh, it's north, yes, that's right.

Q North?

A Northwest, I guess you would call it.

Q Now, where is this you said you drank this water our of the stream?

A Well, just after the creek leaves our land, it goes down about 100 feet, maybe a little more, and there is a spring coming out of the hillside running into this stream.

Q You drank the spring water, not the stream water?

A Yes, spring water.

Q You didn't drink the water in this stream?

A No, I didn't drink no water in the stream, I drank out of the spring.

MR. BIANCO: That is all.

MR. DEGNAN: That is all, thank you.

(Witness excused.)

VINCENT SCHIELTZ

creamery

was called as a witness on behalf of the (State,) and being first duly sworn by the Commissioner, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Degnan:

Q Would you state your name, please?

A Vincent Schieltz.

Q Mr. Schieltz, you have a farm along this tributary we are speaking about this morning?

A Yes.

THE COMMISSIONER: You said yes?

A Yes.

THE COMMISSIONER: You had better talk up pretty good here, please.

Q (By Mr. Degnan) And is it a fact then that the creamery bought a piece of your land in order to construct a new creamery?

A That's right.

Q So your land is the first land right adjacent to the creamery, is that right?

A Yes.

Q And you have a dairy herd?

A Yes.

Q And does any of your cows drink out of this stream as it goes through your land?

A Yes.

Q And didyou also have cattle which could drink out of this stream during the time that the old creamery was in operation?

A Yes.

Q And do you know, Mr. Schieltz, whether or not there is other water in the pasture land of the complainants, Mr. Simon and Mr. Ellerbach, other than the stream?

A Yes.

Q Other than this tributary?

A There is springs in there.

Q And how long have you lived in that vicinity, Mr. Schieltz?

A Since 1934.

Q And are you familiar with the land generally, at least the north half of this area we are talking about this morning?

A Yes.

Q How far would you say the buildings of Mr. Ellerbach's are from this tributary?

A Oh, I would say 1,000 or eleven hundred feet.

Q And do you know about how far the buildings of Mr. Simon's are from this tributary?

A That is about the same.

Q About the same?

A Yes.

MR. DEGNAN: I have no further questions.

CROSS EXAMINATION

By Mr. Bianco:

Q Mr. Schieltz, your farm is in Section 28, part of it?

A Yes.

Q Where is the rest?

A In 20 and 21.

Q 20 and 21?

A Yes, it's up here, and then it comes down this way, my farm, just the corner, just like that (indicating). Just the

corner of it hits the stream.

Q Just the corner of it hits the stream?

A Yes.

Q I see. So your cattle when theydrink out of the stream, it is below Station 3 up there, is that correct.

A Yes. That's right.

Q It would be about, let's see, that is a Section -- about half a mile below Station 3 or a little more than a half of mile below Station 3?

A Approximately, yes.

Q (By Mr. Houser) Are there any springs on your land that the cattle could drink from other than the tributaries, the stream we are talking about?

A No.

Q No springs at all?

A No.

REDIRECT EXAMINATION

By Mr. Degnan:

Q Mr. Schieltz, then in order that we keep the location of the people straight that own land on the tributary, is it true that below this point where your land joins the stream, on the boundary between Section 28 and 29, that this again, the neighboring farm which is owned by Mr. Ellerbach, he is south of you?

A Well, east and south, we say.

Q And his cattle couldn't possibly get to this stream unless it was below the point which you indicated is the intersecting place where your land joins the stream?

A Yes.

MR. DEGNAN: No further questions.

RECROSS EXAMINATION

By Mr. Bianco:

Q You don't drink out of that stream, do you, Mr. Schieltz?

A No, only a spring.

(Witness excused.)

NICK LeGRAND

was called as a witness on behalf of the Offenders, and being first duly sworn by the Commissioner, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Degnan:

Q You are Mr. Nick LeGrand?

A Yes.

Q You also live on this tributary we are speaking about this morning?

A Yes.

Q And Mr. LeGrand, do you live south of Mr. Simon?

A Yes, I live south.

Q And do you have a dairy herd?

A Yes, that's where mine all drink out of.

Q And it's also true that you do not patronize the creamery that is here in question this morning?

A No.

Q And is it true that you were asked to sign this petition or a similar petition?

A Yes.

Q And you refused to sign this?

A I refused to sign it.

THE COMMISSIONER: Speak louder, please.

Q Mr. LeGrand, you say you have a dairy herd?

A Yes.

Q And do your cows drink out of this tributary?

A That is the only water they got in the daytime in that pasture.

Q And have you had any ill effects to your herd because of the fact that they drink from this tributary?

A Well, not that I know of. I never had no veterinary out or nothing.

Q And isn't it a fact that for one reason or another, your dairy herd produced better this past summer than it had previously?

A Yes, they done pretty good, anyway.

Q They did better than they had been doing?

A Yes.

Q And you aren't saying that this is because they drink this water?

A Well, they have to drink that water. That is the only water they got.

Q That is the water they were drinking?

A Yes. Yes, in the daytime.

Q Now, do you know the approximate distance of Mr. Simon's dwelling and farm buildings from this tributary?

A No, I never walked down that lane. I really don't know.

MR. DEGNAN: No further questions.

CROSS EXAMINATION

By Mr. Bianco:

Q Just one question, Mr. LeGrand. I just kind of what to get the location of your farm a little clearer. This is the Section line here between 28 and 33. Now, just where is your farm in reference to Section 28?

A Well, mine is 33, it must be in here.

Q Is part of your land in Section 33?

A I think most of it is.

Q Most of it?

A I think most all of it is.

Q I see. So you are down here between Station 4 and the Section line between Sections 28 and 33, is that correct?

A Yes.

REDIRECT EXAMINATION

By Mr. Degnan:

Q Do you know whether, Mr. LeGrand, your neighbor, Mr. Schieltz, to the southeast of you, --

A Yes.

Q Whether he sold land to the Dubuque Conservation Commission for some kind of a proposed park?

A No, that is a different Schieltz.

Q This is a different Schieltz?

A This fellow here, Carl Schieltz, he just bought this farm not too long ago.

Q Then this is a farm still further south which has been purchased?

A Yes, Carl Schieltz is next to me, and then the park.

MR. DEGNAN: No further questions.

MR. BIANCO: Nothing further.

(Witness excused.)

MR. DEGNAN: We have no further witnesses, Dr. Zimmerer, in view of the time and all, we are not going to call our engineer. He submitted his report, and I think that will be sufficient. He couldn't add anything to that.

THE COMMISSIONER: Do you have any closing statement?

MR. BIANCO: No.

THE COMMISSIONER: Do you, Mr. Degman?

MR. DEGNAN: All we wish to say is that it is the

feeling of the people that represent this creamery that this has been brought about as a mild prejudice on the part of the people who have made this complaint. We don't think that it is based on fact, and we don't think that they can substantitate their allegations that this has been a nuisance, and been detrimental to them in any way. It is kind of a crank thing in our opinion. That is all.

THE COMMISSIONER: Any rebuttal.

MR. BIANCO: No.

THE COMMISSIONER: After I have reviewed the transcript and given this more consideration, I will be ready to give an order if I find that it is indicated. In the meantime, I will hold it in abeyance and we will stand adjourned.

MR. DEGNAN: Dr. Zimmerer, would it be appropriate to submit briefs?

THE COMMISSIONER: Yes, you may.

MR. DEGNAN: Thank you.

(Whereupon, at 12:45 a.m., the meeting is adjourned)

C E R T I F I C A T E

I, Kathleen Tyler, a Certified Shorthand Reporter of the State of Iowa, do hereby certify that at the time and place shown on the title page hereof I was present and took down in shorthand the testimony and all other proceedings had; that my shorthand notes so taken were subsequently extended into typewriting by me, and that the foregoing 87 pages constitute a full, true and correct transcript of the said shorthand notes.

Dated at Des Moines, Iowa, this 10th day of March, 1962.

Kathleen Tyler

CERTIFIED SHORTHAND REPORTER