CIWC EXHIBIT NO. 2.0

CONSUMERS ILLINOIS WATER COMPANY

DIRECT TESTIMONY
OF
CRAIG M. CUMMINGS

WITNESS IDENTIFICATION AND BACKGROUND

Q. Please state your name and business address.

A. Craig M. Cummings, 322 North Gilbert Street, Danville, Illinois 61834.

Q. By whom are you employed and in what capacity?

A. I am Executive Vice President and General Manager of Consumers Illinois Water Company ("CIWC" or "Company").

Q. Please state your educational, professional and business background and experience leading up to your current position.

A. I graduated from Eastern Illinois University, Charleston, Illinois in May 1980, receiving a Bachelor of Science Degree in Environmental Biology. My professional affiliations include the Illinois Section of American Water Works Association, in which I serve as the Section's Chair and also sit on the Education and Emergency Planning Committees. Other professional affiliations include the National Association of Water Companies and the Illinois Potable Water Supply Operators Association of which I served as President in 1998. I hold a Class A Water Operators Certification from the State of Illinois. I also serve as a certified laboratory analyst and Laboratory Director for the Company's Illinois Department of Public Health ("IDPH") regulated laboratory. Additionally, I am the Responsible Operator in Charge for the Division's distribution system.

My 20 years of water utility experience includes employment in 1979 as a summer university intern at Kankakee Water Company (now Consumers Illinois Water Company) in which I

worked in all phases of production and maintenance at the Kankakee treatment plant. Following my graduation from college in 1980, I worked as a laboratory analyst/operator for the City of DeKalb, Illinois, a deep well groundwater supply. During my employment with DeKalb, I was involved with the day-to-day maintenance and operation of the deep wells. I also attained top Illinois Environmental Protection Agency ("IEPA") certification as a water plant operator and was also certified by the IDPH to work in a water quality laboratory. In May 1983, I assumed the position of Treatment Technician/Laboratory Director with the City of Decatur, Illinois. In this position, I supervised the City's two treatment plants, including all operations and laboratory personnel. In May 1989, I assumed the position of Production Manager for Inter-State Water ("ISW") Company (now Consumers Illinois Water Company), in which I was responsible for the operations in the Production Department. My duties included, among other things, preparing yearly and long-term capital and operating budgets, personnel supervision, planning and design input for the construction of the new ISW treatment facility and the operation and maintenance of the Company's dam and source of supply, Lake Vermilion. I was promoted to my current position of Executive Vice President and General Manager in February 1994.

Q. What are your responsibilities as Executive Vice President and General Manager of CIWC?

A. I have overall responsibility of the day-to-day operations of the Vermilion County Division. I also assist the Company President and other officers in developing goals and objectives for the Company and in administering policies and procedures as approved by the Board of Directors of the Company. It is my responsibility to ensure that these goals and objectives are achieved. I, along with other Company officers, represent the Company before governmental and regulatory agencies. I, along with others, formulate financial objectives and budgets and provide the direction necessary to meet those objectives while remaining within budgetary guidelines. I am part of the management team, which establishes employee levels, working conditions, and safety requirements within guidelines established by the Board of Directors and the President of the Company. My responsibilities include establishing guidelines for negotiation of labor contracts with the union representing employees in the Vermilion County Division, as well as other special contracts. I have the responsibilities associated with providing excellent customer

service, developing and controlling the Company's operating and maintenance and capital budgets, as well as providing direction in the areas of construction, purchases or other acquisitions, operation, maintenance and protection of all property, facilities and equipment required to maintain water quality standards and continuity of service.

Q. Have you previously testified in regulatory matters?

A. Yes. I testified before this Commission in Consumers Illinois Water Company, Docket 95-0237, which addressed the need for land rights to conduct groundwater testing; Docket 97-0351, a rate proceeding; Docket 98-0265, a certificate case; and most recently in Docket 99-0449, a financing case.

Q. Are you familiar with the property, business and operations of the Vermilion County Division?

A. Yes, I am.

INTRODUCTION

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide background information regarding the rate filing for the Vermilion County Division. I will discuss the facilities and operations of the Vermilion County Division, and certain matters related to the capital projection developed for that Division. Finally, I will discuss business risks facing the Vermilion County Division.

Q. Are you sponsoring any exhibits in this proceeding?

A. Yes. I sponsor the E-Schedules of the Standard Information Requirements, which are set forth in CIWC Exhibit 12.0 for the Vermilion County Division. I also sponsor CIWC Exhibits 2.1 through 2.2. These Exhibits were prepared by me or under my supervision and direction.

VERMILION COUNTY DIVISION

Q. Please further describe the service area and facilities of the Vermilion County Division.

A. The Vermilion County Division provides residential, commercial, industrial and municipal water service, including fire protection, to customers located in Vermilion County, Illinois. The Division provides retail service to its customers in the City of Danville, Village of Tilton and adjacent areas in Vermilion County. The Division also provides wholesale service to the Villages of Catlin and Westville, respectively. The Company serves approximately 17,000 retail customers directly and through service provided by its wholesale customers, provides water service to a population of approximately 55,000.

The Division obtains its water supply from the North Fork of the Vermilion River on which there are two dams. The upper dam, built in 1925, forms an artificial reservoir known as Lake Vermilion. The second dam, located at the purification and pumping plants, creates an impoundage from which the raw water pumps take suction. There are four submersible, flood-proof raw water pumps ranging in size from 35 to 150 HP and capacities from 2 to 9 million gallons per day which lift untreated raw water to the treatment plant where it is treated with ferric chloride, lime, carbon dioxide, polymers, chlorine, hydrofluosilicic acid and powdered activated carbon. The water is mixed with these chemicals, allowed to settle and then filtered; it is chlorinated and stored in a 1.25 million-gallon clearwell before being pumped to the distribution system.

Four vertical turbine pumps ranging in size from 250 to 600 HP and capacities from 2 to 9 million gallons per day can be used to pump water to the distribution system. A 1,000 kW diesel-powered, electric generator provides emergency electric service to the water treatment plant and raw water pumping station in case of failure of the public power supply. The lime softening treatment process includes four Eimco Reactor Clarifiers; six dual-media filers and state-of-the-art instrumentation featuring distributed programmable logic controllers and personal computer control with graphics and report capabilities. The facilities are controlled and monitored by highly trained personnel.

The facility includes laboratory capabilities for process and quality control to assure customers the highest water quality. The distribution system is made up of 276 miles of mains

ranging in size form 1" to 24", on which there are 17,783 meters and 1,428 public fire hydrants. The total Distribution Storage capacity is 7.8 million gallons. The bulk of the storage consists of two 3.0 million-gallon standpipes, and three elevated tanks that have a capacities of 1,000,000; 500,000; and 300,000 gallons. The 300,000-gallon elevated tank and an associated booster station serves a pressure zone that is located in the northern part of the service area. The 1,000,000-gallon water spheroid was constructed and placed in service on August 1, 1982. The Division purchased the 500,000 gallon elevated tank from the City of Danville in 1997. This tank serves the Eastgate Industrial Park.

In the twelve months ending December 31, 1999, the Division delivered to its distribution system approximately 2.975 billion gallons for a daily average of 8.150 million gallons. The maximum day occurred on July 16, 1999 with approximately 10.623 million gallons delivered. The peak pumpage per hour of .556 million gallons occurred on July 9, 1999.

PROPOSED RATE INCREASE

Q. Mr. Cummings, what is the percentage rate increase being sought by the Vermilion County Division in this proceeding?

A. The proposed new rates will increase the Division's annual operating revenue by approximately 21.75%.

Q. What are the primary reasons for proposing this increase in revenues?

A. As previously discussed, the last rate Order for the Vermilion County Division was issued in Docket 97-0351 (June 3, 1998). The rates established in that case were based on an adjusted 1996 test year. The adjusted test year levels of operating expenses and rate base have increased significantly since that time. For the 2001 test year, the rate of return on common equity capital for the Division has declined to 5.24 % at present rates. As will be discussed in more detail below, and in Mr. Winegard's testimony, the most significant factor affecting the need for increased revenue for the Vermilion County Division is the investment of approximately $6,000,000 in new facilities needed for compliance with nitrate and other environmental regulations ("Regulatory Compliance Facilities"). The Regulatory Compliance Facilities will begin operation in late 2000. The Company has reflected the cost of the Regulatory Compliance Facilities, and other necessary plant additions in the test year forecast. In addition, to properly recover the investment in plant, the Division has proposed new depreciation rates based on a study presented by Mr. Guastella. Additional factors affecting the need for increased revenues have been an overall decline in the Vermilion County Division's customer base and average consumption, as well as continued significant investment in aging infrastructure. Several businesses or business units have ceased operations since the last rate order. SMF, the Hyster customer service unit, APAC Telemarketing Services and Victory Beauty Supply have all ceased operations in the Vermilion County Division. Lastly, the Division continues to invest significant capital to correct multiple requirements in the distribution system as well as to replace aged infrastructure that has exceeded its useful life expectancy.

Q. Please discuss the E-Schedules of CIWC Exhibit 12.

A. Schedule E-1 is a copy all current tariff sheets for the Division. Schedule E-2 is a copy of the proposed tariff sheets. Schedule E-3 is a copy of the present tariff sheets which shows, in strikeout form, all existing rates and tariff language which the Company proposes to remove and shows, in underline form, all new rates and tariff language which the Company proposes to add. Schedule E-4 provides a narrative rationale for the proposed tariff changes. Schedule E-5 provides the billing units, which make up test year revenue for each designated rate. Schedule E-6 provides calculations showing the derivation of jurisdictional revenues from each current

rate schedule and each new rate schedule proposed by the Company. Schedule E-9 consists of bill comparisons by rate schedule and classification for each rate schedule.

PLANT INVESTMENT

Q. Have you prepared information showing the additions to plant from the time of the Division's last rate case through December 31, 1999?

R. Yes. This information is provided in CIWC Exhibit 2.1.

Q. Do you have an exhibit which shows the items included in the capital projection for the Vermilion County Division in 2000 and 2001?

R. Yes, these items are shown on CIWC Exhibit 2.2. As indicated, the largest category is Regulatory Compliance Facilities.

Q. Please further discuss the investment in Regulatory Compliance Facilities.

A. The Regulatory Compliance Facilities are necessary to comply with environmental law and regulations. The largest component of the Regulatory Compliance Facilities is for nitrate abatement. As I will discuss, however, the Regulatory Compliance Facilities also include a carbon slurry system, new river intakes, filter improvements, changes in the form of disinfectant and upgrades to the Supervisory Control and Data Acquisition ("SCADA") system.

Q. Has the Commission previously reviewed the Company's plan to construct the Regulatory Compliance Facilities?

A. Yes. The analysis which led to the decision to construct the Regulatory Compliance Facilities and resulting construction plans were reviewed by the Commission in Docket 99-0449, in which financing for the Facilities was approved. In that proceeding, the Commission concluded that the decision to construct the Facilities and associated use of funds is reasonable and appropriate. Docket 99-0449; Order, p. 10.

Q. Has there been any change of circumstances related to the Regulatory Compliance Facilities since issuance of the Order in Docket 99-0449?

A. No. The information discussed below and by Mr. Winegard is essentially the same as that reviewed by the Commission in Docket 99-0449 in concluding that construction of the Facilities is reasonable and appropriate.

Q. Why is it necessary to expend funds for the control of nitrates in the Vermilion County Division?

A. CIWC is subject to all applicable regulations related to the Environmental Protection Act, the 1974 Safe Drinking Water Act ("SDWA"), the 1986 Amendments to the Safe Drinking Water Act, and the National Pollutant Discharge Elimination System ("NPDES"). CIWC draws its water from Lake Vermilion ("Lake"). Nitrates, a common fertilizer component, are washed into the Lake as a result of run-off from the 300 square mile agricultural area surrounding the Lake. The IEPA has determined that, at times, the nitrate levels in the water of Lake Vermilion exceed the federal nitrate primary drinking water standard of 10 mg/l. Specifically, since the Company began compliance testing in 1978, there have been 23 separate nitrate violations, lasting in duration from 7 days to 184 days. The highest level recorded by the IEPA was 15.6 mg/l which occurred on May 4, 1992.

To bring CIWC into compliance with the federal nitrate primary drinking water standard ("Standard"), the IEPA required CIWC to execute a Letter of Commitment (the "Commitment") in the summer of 1992. Under the Commitment, CIWC was required to bring the nitrate levels in the water it supplies to customers to levels in compliance with the Standard by April 1, 1997. The Standard is an absolute maximum permitted concentration which must be adhered to at all times. Due to the method of IEPA compliance testing, which occurs once per week, it is important that a reasonable safety margin (*i.e.*, concentration level below the maximum, which prompts corrective action) is taken into consideration. The Commitment required CIWC to notify its customers of nitrate levels at or above 8.5 mg/l and to offer bottled water for infants who are most at risk from elevated nitrate levels. Infants six months of age or younger are vulnerable to nitrate-induced methemglobinemia, commonly called blue baby syndrome. Although 8.5 mg/l is not in violation of the Standard of 10 mg/l, IEPA determined that notifying

customers and offering bottled water as nitrates were trending toward the Standard provided the best protection to the vulnerable population. The Company was required to continue offering bottled water until the water supply experienced four consecutive weeks below 8.5 mg/l.

Furthermore, the Company is in negotiations with the IEPA concerning an Agency referral to the Illinois Attorney General's office, which will result in a consent decree, compelling the Division to complete the nitrate abatement facilities within a negotiated timeframe.

Q. Please discuss the steps taken by CIWC to address nitrate abatement.

A. CIWC has conducted an evaluation of various means of reducing the level of nitrates contained in the water supply. All recognized methods of nitrate reduction were evaluated. These include (i) side-channel storage; (ii) biodenitrification; (iii) reverse osmosis ("RO"); (iv) aquifer storage and recovery; (v) ion exchange; (vi) nanofiltration; and (vii) groundwater dilution. The analysis of these options was addressed in Docket 99-0449.

Q. Would you discuss the evaluation of these options?

A. Yes. In conducting the evaluation, the Company initially examined data for the period from 1978, when nitrate monitoring commenced, to 1992, the year in which the Commitment was signed. During this period, the nitrate problem had become progressively more serious. The five-year period from 1988 through 1992 had the worst nitrate compliance record for any period since the commencement of monitoring efforts. As indicated above, the highest nitrate concentration during the period, 15.6 mg/l occurred in 1992. The number of violations determined by IEPA, the duration of such violations and number of days above a 9.0 mg/l safety margin were as follows:

TABLE 1

	No. of Violations	Days of Duration Violation(s)	No. of Days At or Above 9.0 mg/l
1978	0	0	0
1979	2	12	56
1980	0	0	49
1981	1	46	133
1982	0	0	14
1983	0	0	35
1984	2	15	49
1985	2	77	126
1986	0	0	35
1987	2	42	112
1988	1	21	91
1989	1	167	168
1990	4	102	196
1991	2	20	98
1992	2	186	189

In consultation with IEPA, the Company determined that, at a minimum, the analysis of alternatives should assume that the option selected would be required to treat a nitrate

concentration of 15.6 mg/l. The Company further assumed that treatment would be required when the concentration was at the level of 9.0 mg/l and above (and, therefore, approaching the 10 mg/l standard). Lastly, again in consultation with IEPA, the analysis assumed that treatment would be required for 186 days per year, the length of the nitrate violation in 1992.

Q. In the evaluation, were any options ruled out on operational grounds?

A. As discussed in Docket 99-0449, four of the options: Side Channel Storage, Biodenitrification, Aquifer Storage and Recovery and Nanofiltration were initially ruled out on operational grounds.

Q. Did the other methods prove feasible from an operational standpoint?

A. Yes. The Company determined that the remaining three methodologies should be analyzed to determine the cost-effectiveness of each. With respect to RO, it was determined from calculations of the industry average capital and operating costs that the method would be prohibitively expensive. There were also concerns over fouling the expensive membranes, and the amount of water that would be wasted in frequent flushing of the membranes as well as waste disposal. For these reasons, RO was withdrawn from further consideration.

Ion exchange was investigated through the use of an ion exchange pilot plant that was operated in the summer of 1994. A University of Illinois graduate student ran this project with oversight by Dr. Vernon Snoeyink, a respected water researcher. The pilot plant program, which resulted in a comprehensive report, indicated that from a unit process standpoint, ion exchange was a feasible method. Subsequent to the pilot study, the Company continued with evaluation by studying the issue of wastewater disposal. This evaluation indicated a concern with the volume of wastewater produced, and the desire or ability for that matter, of the Danville Sanitary District to accept the waste stream. Using the design criteria previously discussed, the ion exchange process would have potentially created a wastewater stream of 36,000 gallons per day, or 6.6 gallons over the 186-day operating period. Due to the volume of wastewater produced, major upgrades to the wastewater collection system and a related lift station would have been necessary in the vicinity of the plant. This included a flow-equalizing basin, an upsized pump station and wastewater line upgrades at an estimated cost of $ 225,000. Due to

the 186 day operating period, it was also determined that operating costs would be high. Additionally, ion exchange would not produce offsetting cost reductions (e.g. savings on less chemical treatment) because 100% of the plant flow would still be treated by the conventional treatment processes, with a portion then being directed into the ion exchange units for additional treatment. Therefore, ion exchange was feasible. Early indications, however, were that costs would be prohibitive.

The remaining method analyzed was the use of low nitrate groundwater for blending with high nitrate water from Lake Vermilion. From industry experience and discussions with other groundwater supplies in the area, it was known that operating costs, except the electricity to pump the water, should be low. The groundwater would be minimally treated because it would be processed while being blended with the surface water. The location and quantity of the groundwater needed to be determined in order to develop capital costs for the project. Since the groundwater would be transported via transmission main to the existing treatment facility for blending, it was critical to determine the location of a sufficient supply of groundwater. Large diameter transmission main would be laid to the groundwater wells. The length of this pipeline (the diameter was already determined) and the location and number of individual wells (which would all be connected to the transmission main) would be the major determination of the overall capital cost for the project.

Q. Would you further discuss the preliminary cost analysis for the ion exchange and groundwater approaches?

A. Yes. At this stage of the analysis, there was insufficient data available to reach a firm conclusion regarding the capital and operating costs associated with either methodology. It was possible, however, to develop estimated potential cost ranges. The available data indicated that, depending on the associated capital cost, groundwater blending could be the least-cost option. Also, at the time, other potential benefits of the groundwater approach were identified. These included: (i) an increased source of supply, (ii) a less vulnerable source of supply and (iii) a source of supply which would facilitate efforts to comply with SDWA amendments which were known to clearly target surface water supplies with the Enhanced Surface Water Treatment

Rule ("ESWTR"), Disinfection and Disinfection By-Products ("D/DBP"). The approach also could reduce the level of organic contaminants in the water supply. For these reasons, the Company determined to proceed with a study of groundwater in Vermilion County.

Q. What did the Company do to determine the location and quantity of groundwater?

A. Since groundwater appeared to be a viable option, a study similar to that conducted for ion exchange was initiated. The Company consulted with the Illinois State Water Survey ("ISWS") concerning the location of large, sustainable groundwater sources in the vicinity of Danville. Since decades of hydrogeologic study by the ISWS had shown that the groundwater resources in and around Danville were extremely limited, the ISWS directed the Company northwest of Danville. In the area selected, it was thought that an extension of the Teays-Mahomet Bedrock Valley, which was known to traverse Vermilion County near Hoopeston, would possibly extend southward toward Danville. As I have previously stated in my testimony, the location of the groundwater supply was critical to developing capital costs for the project, as the majority of costs would be the result of pipeline construction.

The Company retained Northern Environmental, Inc. to coordinate seismic refraction studies within public right-of-ways in the target area. This was completed in June 1993. The seismic refraction data indicated possible water bearing formations near the Village of Henning. The Company began negotiating with landowners in the area to conduct groundwater testing to determine the physical attributes of the aquifer, quantity and quality of water as well as the safe yield of the aquifer. The Company was not successful in its attempts to negotiate with landowners to obtain the land rights needed for testing and, therefore, requested and was granted the authority to condemn temporary easements to five parcels of land in ICC Docket 95-0237. The Commission's Order, however, was appealed with the result that the testing of sites in the target groundwater area was delayed.

While Court proceedings continued, the Company was successful in locating one landowner, CSX Transportation, Inc., willing to allow testing on its property. Groundwater test holes were drilled at seven different locations along the CSX railroad right-of-way. These test holes, although within the test area, were aligned in a narrow linear fashion. In and of

themselves, they provided useful data. Because of the location of the tests, however, the data was not sufficient to fully assess the area resources.

Q. Was the Company successful in obtaining the land rights needed to conduct further groundwater tests?

A. Yes. The Appellate Court ultimately upheld the Commission's Order. The landowners sought review of the Appellate Court's opinion in the Supreme Court, but the Supreme Court refused to hear the appeal. The Company also was successful in resolving the condemnation proceeding filed against the landowners in circuit court (which also was appealed).

Q. Were additional groundwater tests conducted?

A. No. While the litigation regarding groundwater tests was pending, the Company continued its consideration of data and alternatives. Based on this consideration, it was determined that, although authorized, the groundwater tests should not go forward.

Q. Please discuss the information that was developed.

A. As explained above, the Company assumed in its preliminary analysis (based on the data available at the time) that the nitrate treatment process would be required to operate 186 days each year. This assumption had a significant affect on the cost analysis. With regard to ion exchange, which has higher daily operating cost but lower capital cost as compared to groundwater option, the assumed duration of operation (186 days) raised the overall cost and Present Value Revenue Requirement ("PVRR") for the approach. Groundwater blending, on the other hand, has a high fixed cost component, and is not as greatly affected by the assumption regarding the number of days of operation. Accordingly, an increase in the number of days of operation in the analysis tends to raise the relative cost of ion exchange as compared to the groundwater approach. As new data became available, the Company determined that the initial assumption with regard to the number of required days of operation should be reduced. For the reasons discussed, this change reduced the relative cost of ion exchange as compared to groundwater blending.

Q. Were there other considerations affecting the groundwater study?

A. Yes. Additional data relating to the groundwater option became available in the period of 1997 and 1998. These data concerned the amount of water available in Lake Vermilion (and the potential need for a supplemental source of supply). Also, the amendments to the SDWA became effective in 1996. Following the drought of 1990, the Company sought to determine the exact quantity of water in Lake Vermilion and conducted various "safe yield" calculations based upon drought frequency. To this end, the Company retained the services of the Illinois State Water Survey in 1997 to conduct a safe yield and sedimentation survey of Lake Vermilion. Part of this work, the safe yield survey, was available in late 1997. This report indicated there would be adequate water in Lake Vermilion for the near future (30 years). Additionally, the sedimentation survey became available in early 1999. The survey confirmed the safe yield study. The SDWA amendments indicated that, although there were more stringent standards concerning D/DBPs, the impact of turbidity and microbial contaminants would be less problematic than originally thought. All of these factors indicated a reduced need for a groundwater source of supply.

Q. Please provide recent data regarding the number of nitrate violations, number of days duration of the violations and number of days with nitrate concentrations at or above 9.0 mg/l?

A. That data follows:

TABLE 2

	No. of Violations	Days of Duration Violation(s)	No. of Days At or Above 9.0 mg/l
1993	0	0	0
1994	0	0	0
1995	0	0	6
1996	1	48	63
1997	1	7	21
1998	0	0	56
1999	2	21	91
2000 through March	0	0	0

Q. What do the data indicate?

A. The data shown in Table 1 indicates that two or three years of consecutive low nitrate violation frequency could be expected (*e.g.*, 1982 (0 standard exceedances and 14 days at or above 9.0 mg/l); 1983 (0 standard exceedances and 35 days at or above 9.0 mg/l)). As a result, the favorable data for the years 1993-1995 (0 standard exceedances and six days at or above 9.0 mg/l for the three-year period) in isolation is not significant. The recent data in Table 2 covering 1993 - February 2000, however, clearly demonstrates a long-term decline in the expected frequency and duration of nitrate violations.

Q. Is there an explanation for the change in the observed conditions?

A. Yes. In 1991, the Company was granted a permit from the Illinois Department of Transportation, Division of Dam Safety (now known as the Illinois Department of Natural Resources, Division of Dam Safety), to raise the level of Lake Vermilion by five feet. This was

accomplished in late 1991 and into early 1992. With the raised lake level, nearly 100 acres of wetlands were created at the northern end of Lake Vermilion. A well-known benefit of wetlands is to provide biological removal of nitrates as well as offering numerous other benefits. The Company believes that following the initial acclimation of the newly formed wetlands in 1992, they have worked as efficient nitrate reducers since.

Similarly, in 1993 the Company approached the Vermilion County Farm Bureau about forming a watershed protection group in an attempt to reduce nitrate concentrations in Lake Vermilion. After working through the mission and membership of this group, it was officially launched in early 1995 as the Lake Vermilion Water Quality Coalition ("Coalition"). The work of this group has centered on producer education and modifications to agricultural practices in the watershed. To this end, the Coalition has secured a USEPA 319 Watershed Protection Grant and has planted "test plots" in each of two years to demonstrate reduced nitrogen application does not adversely impact corn yields.

The result of this watershed protection work and the natural "scrubbing" of nitrates by the wetlands have resulted in a less severe nitrate problem in the Lake.

Q. What was the significance of this information with regard to the groundwater study?

A. With modified assumptions, the relative cost of the ion exchange approach was reduced to the point that groundwater blending could not qualify as the least-cost option. Based on updated data, the Company determined that the treatment process could be expected to operate a total of approximately 90 days over a three-year period. On an annualized basis, 30 days of operation (as compared to 186 in the prior analysis) is expected. This change in assumptions reduced the relative cost of the ion exchange approach. An assumption that adequate groundwater for blending would be found at the closest possible location (an assumption which may very well be incorrect) produces the minimum possible cost for the groundwater approach. Even with this assumption (i.e., assuming the least possible cost for groundwater blending), the ion exchange approach has a lower PVRR. For this reason, it became unnecessary to determine whether or not adequate groundwater was, in fact, present at the closest or other identified groundwater test sites and groundwater tests were discontinued.

Q. Please discuss the final analysis of the alternatives.

A. Because the appropriate assumptions with regard to the nitrate problem had changed, the Company re-examined all of the alternatives. Also, as noted above, the SDWA amendments were enacted in 1996. Therefore, in conjunction with the re-examination of alternatives, the Company also reviewed the impact of the 1996 SDWA amendments on the Company's water treatment process. The Company retained Consoer Townsend Envirodyne, Inc. ("CTE"), a consulting engineering firm, to assist with this analysis. This analysis is included in the report sponsored by Mr. Winegard and marked as CIWC Exhibit 10.1.

Q. Were any of the options previously eliminated on operational grounds restored in the final analysis?

A. Yes. Based on the reduction in the number of days of operation, and, thus, a considerably lower amount of storage volume being necessary, Side Channel Storage was no longer ruled out from an operational standpoint.

Q. Please discuss the analysis of Side Channel Storage?

A. In 1998, the Company approached two landowners whose property encompassed strip-mine areas west of Danville. One landowner was unwilling to reasonably negotiate with the Company, while the other landowner was cooperative. Additionally, the Company obtained an option on a third parcel of property to determine the feasibility of constructing a side channel reservoir. The resultant study by a consulting engineering firm, Daily and Associates ("Daily"), indicated that side channel storage at either the location of strip-mine area of the receptive landowner or the area on which the Company had obtained an option were prohibitively expensive. Cost data from Daily's analysis was used by CTE in examining this alternative

Q. Are there some costs which are common to each alternative studied?

A. Yes. Each analysis includes costs incurred to date for the nitrate project. Also, each alternative includes costs for certain improvements to the CIWC system, which are recommended by CTE in their report. These improvements include a carbon slurry system, filter improvements, constructing a new river intake and upgrading the SCADA system. Each of these improvements is required to meet water quality concerns.

Q. Would you further explain the need for the improvements common to the alternatives?

A. Yes. The bulk carbon facility (also referred to as a carbon slurry system) would supplement the existing bagged carbon system. The new bulk carbon facility would take a full truckload of powdered activated carbon ("PAC") and, with the addition of water in a large concrete storage basin, mix the carbon into a slurry solution. This slurry, in roughly a one pound per gallon solution, could then be fed to various points throughout the plant. This system would allow much higher dosages of PAC than are now available with the bag carbon system to be fed to these various points in the plant. This will insure compliance with the D/DPB (Stage I) and Synthetic Organic Chemical ("SOC") regulations. Additionally, should a catastrophic organic chemical contamination occur in Lake Vermilion (such as that which might occur from the spill of agricultural chemicals), the bulk carbon system can apply high doses of PAC to multiple points in the plant, including the filters.

Another improvement common to the alternatives is the addition of raw water intake screens to the treatment facility. Currently, the treatment facility utilizes the original intake (circa 1900) with minimal and inadequate screening. The original intake structure has a rough bar grate with 4-inch centers to keep large debris such as logs from entering the intake structure. This is followed by an intake screen with ½ inch centers. Although the bar grate extends to the top of the intake, the intake screen only extends two feet above the normal river level. Therefore, when river flows are high (which corresponds with the greatest amount of debris in the river), the screens are overtopped and debris can enter the intake and damage pumps or be transported into the treatment facility. Additionally, in either the case of the bar grate or screen, there is no way to backwash debris from these structures. Removal of debris is a time-consuming and difficult manual endeavor.

The new intake screens will consist of parallel 20-inch intake lines extending into the North Fork River and resting on the bottom. The intake lines will each terminate in a tee configuration with each end of the tee further branching into two perpendicular tees with these tees being 18-inch diameter by 57-inch length of ¼ inch slotted stainless steel welded wire intake screen. The screens will be equipped with an air backwash system capable of quickly and completely purging each screen. The new intake screens will draw water from near the

bottom of the river, thus eliminating most floating debris, will be unaffected by high flows and will provide much greater protection from organic materials being drawn into the treatment facility. This will equate to less organic matter in the treatment facility, lowering chlorine demands, reducing the Total Trihalomethane Formation Potential and better protecting pumps, valves and other treatment facility equipment from damage and/or extraordinary maintenance.

The filter improvements include the modification of the filter effluent control system from variable declining rate filters to constant rate. Additionally, state-of-the-art turbidimeters will be added to each effluent line with a particle counter capable of sampling any of the six filters. The filter-to-waste line will have a turbidimeter and control valve added to improve the filter-to-waste capabilities. Lastly, as part of the ion exchange plant addition, a proportioning control valve will be added into the filter effluent header. All of these improvements are to insure compliance with the Enhanced Surface Water Treatment Rule Turbidity Standard of 0.3 NTU and provide improved monitoring and reporting capabilities.

The improvements to the SCADA system include the upgrade of the SCADA software and the addition and replacement of the programmable logic controllers ("PLCs") which will no longer be supported by the manufacturer due to obsolescence. The current SCADA software is extremely limited in its ability to manipulate and archive data. Additionally, the ability to electronically display data, particularly graphically, is likewise limited. Currently, the trending of certain treatment parameters can only be accomplished through the use of thermal strip chart plotters. The plotters are difficult to maintain and the thermal paper provides poor data archiving. The SCADA improvements will provide greater and more meaningful data upon which to control the facility and to readily provide more information to regulators concerning treatment facility operational performance. Additionally, by initiating a migration from the obsolete PLCs to the selected models, plant downtime and maintenance costs can be minimized.

The D/DBP regulations and the need to improve the aesthetic character of the water prompt the change of disinfection methods from breakpoint chlorination to chloramination. Chloramination will prevent the formation of trihalomethanes, a set of regulated substances of which the standard is being lowered from the current 100 micrograms/liter (ug/l) Total

Trihalomethane (TTHM) to 80 ug/l TTHM in Phase I of the D/DBP regulations. Phase II of the regulation is expected to lower this standard to 40 ug/l TTHM in 2004.

Q. What does the analysis discussed in the CTE Report demonstrate?

A. The CTE Report demonstrates that the least-cost feasible approach for addressing the regulatory concerns facing the Vermilion County Division is installation of ion exchange (counter-current regeneration mode) facilities, along with the other treatment facility improvements previously mentioned in my testimony. The PVRR associated with this option is over $6,000,000 below that of the next least-cost alternative, RO.

Q. Would you discuss the ion exchange process?

A. Yes. In simple terms, the process acts as a "filter" to remove nitrates and other substances. In the ion exchange process, water containing nitrate passes through a media bed comprised of a high-capacity anion exchange resin with a final gravel support media. Nitrates, sulfates and alkalinity are exchanged for chlorides on the strongly basic anion resin. The exchange capacity is largely governed by the concentrations of nitrates and sulfates which are retained until breakthrough of unwanted ions occurs. Prior to breakthrough, sometimes called exhaustion, the process is regenerated using a strong chloride solution. Regeneration is generally based upon volume of water treated and is designed to be accomplished before breakthrough occurs. Since there is little indication of exhaustion of the nitrate removal capabilities prior to breakthrough, it is critical that some margin of safety (i.e. 9.0 mg/l blended water) be maintained.

The basic chemical reactions are reversible as follows:

In Service: $RCl + NaNO_3 = RNO_3 + NaCl$

Regeneration: $RNO_3 + NaCl = RCl + NaNO_3$

Where R = anion exchange resin.

The counter-current mode regeneration utilizes an upflow regeneration and slow rinse and a downflow in-service configuration. This results in lower leakage rates through the bed. A disadvantage of this system is that higher capital costs are required to configure the two flow modes. These costs must be compared with the lower operating and maintenance costs and higher effluent quality that the method produces.

The ion exchange process generates a waste stream which contains concentrated nitrates that have been removed and must be disposed of properly. The Danville Sanitary District has indicated that it would accept the nitrate waste level assumed in connection with the study. This method of disposal would require that additional force main be constructed and that the current lift station be expanded or a new one built to effectively transport the waste to the Sanitary District. These costs were included in CTE's cost analysis. Alternatively, the waste stream could be discharged to an alternative point prior to flowing to the receiving stream. These alternative points include the existing sludge lagoons or Horseshoe Pond (the Company's previous sedimentation basin) located west of the plant. Each of these options would require a modification to the existing NPDES permit. At CTE's recommendation, the Company is pursuing such a modification or new permit. However, preliminary correspondence with the IEPA has indicated that the Sanitary District option may be the only permitted discharge point.

Q. How would the ion exchange system be sized?

A. The ion exchange system would be sized to treat a portion of the total plant flow such that the plant would be capable of producing 10 MGD of blended water with a nitrate concentration below 9 mg/l. The ion exchange process also would remove sulfates and 20-40 mg/l of alkalinity in the feed water as they exhibit a strong affinity for the resins. The resins would exchange chlorides for nitrates and sulfates according to the following reaction where R designates the ion exchange resin:

$$RCl + NaNO_3 + Na_2SO_4 = 2NaCl + RNO_3 + RS0_4$$

Therefore, the chloride concentration of the finished water would increase by approximately two times. No Maximum Contaminant Level (MCL) exists for chloride, but the secondary (aesthetic) standard for chloride is 250 mg/l to avoid a salt-water taste. The blended finished water should be well below this standard.

Q. Would you further discuss the requirements for the ion exchange system?

A. Yes. Given average and maximum influent values of 12.7 and 15.6 mg/l, respectively, an effluent nitrate concentration of 2 mg/l is easily achievable using the ion exchange process. For the finished water to meet a goal of 9 mg/l, it would be required to treat only a portion of the influent for nitrate. The balance could be "blended around" this process and the combined water would then safely meet the standard. The overall treatment capacity goal would be 10 MGD of finished water at less than 9 mg/l of nitrate based on average and maximum influent nitrate concentrations of 12.7 and 15.6, respectively. At worst case conditions, this would require a reliable ion exchange capacity of 3,056 gallons per minute (gpm). This capacity could be provided through four treatment vessels, each with a treatment capacity of 764 gpm. The four vessels would provide the required total maximum capacity. At average conditions, the required flow to be treated by the ion exchange system would be 1,821 gpm, which could be provided through 3 treatment vessels with 1 unit out of service for regeneration or maintenance. The ion exchange system would be housed in a pre-engineered steel structure, enclosing an approximate surface area of 3,000 sq. ft. The structure would be located just north of the existing reservoir. The flow configuration would include conventionally filtered water piped toward the existing reservoir with a portion being discharged into the reservoir and the required balanced (based upon nitrate concentrations and water demand) piped to the ion exchange system. The effluent from the ion exchange system would be then discharged into the reservoir.

Q. When will the ion exchange equipment be purchased?

A. The ion exchange equipment has been purchased by the General Contractor in the first quarter of 2000. To expedite the long lead-time process of ordering the ion exchange equipment, the Company solicited bids for this equipment in mid-1999. These bids have already been received

and the low bid was accepted and forwarded to contractors for inclusion in their project bids. The equipment will begin operation prior to December 2000.

Q. Has a contract been executed with a Contractor for the Regulatory Compliance Facilities construction project?

A. Yes. A construction contract has been executed with Bowen Engineering Corporation of Fishers, Indiana as the result of a competitive bidding and selection process.

Q. Will installation of the Regulatory Compliance Facilities result in a change in expense levels?

A. Yes. The resulting change has been reflected in the test year projection. The nitrate facilities alone will increase operating costs (on an annualized basis) by approximately $32,000 per year.

Q. Please describe the plant additions included in the Company's 2000 and 2001 investment projections.

A. A detailed summary of plant additions included as the Company's 2000 and 2001 investment projections is set forth in Exhibit 2.2. In addition to the Regulatory Compliance Facilities previously discussed, major capital projects in both years are necessary to insure system reliability and to comply with the Safe Drinking Water Act as well as Company guidelines to ensure safe drinking water to our customers.

The projects (other than the previously discussed Regulatory Compliance Facilities) scheduled to be completed and placed in service in 2000 include the following:

1. The English Street Transmission Main which will provide a 24" water main toward the Fowler Avenue Booster station to eventually provide additional supply directly to this pump station which supplies Danville's industrial east side. The projected cost is $460,000.

2. The Perrysville Road Main project will provide water service along this road and to the Valley Run Mobile Home Park. The majority of the cost of this project is being funded by a State of Illinois Community Development Assistance

Program ("CDAP") grant. The Company's share in the project is projected to be $130,000.

3. The Marion Street private line replacement project will eliminate several private water lines on the southeast side of Danville and will provide a water main of proper size to this neighborhood. Additionally, fire protection will be added in this area. The projected cost is $28,000.

4. The Daisy Lane water main replacement project will replace an undersized cast iron water main with a new 12" cement lined Ductile Iron Pipe. This will eliminate two dead end water lines and should eliminate the source of ongoing customer complaints in this area as well. The projected cost is $100,000.

5. New and replacement water meters. This project will primarily replace meters that are non-remote reading types that are more than 20 years old. The meter replacements will be remote reading units of either the "Touch-read" or "radio-reading" style. The projected cost is $250,000.

6. Service line installations. This project will provide new service taps and the installation of the Company-owned portion of service lines. This project will also replace existing services due to conflicts with road widening projects, leaks or the replacement of lead service lines. The projected cost is $210,000.

7. Replacement of fire hydrants. This project will replace fire hydrants that are leaking or malfunctioning in some other manner. Additionally, two nozzle hydrants will be replaced with standard three nozzle hydrants (two hose connections and a pumper nozzle) and hydrants that are on 4" water mains will be targeted for replacement. The projected cost is $100,000.

8. Wire rope hoist installation at the Lake Vermilion Dam. The installation of a wire rope hoist at the dam will reduce response times to high flow

and flood events and allow for further automation of the complete control system that regulates the level of the drinking water reservoir, Lake Vermilion. The projected cost is $76,000.

9. Various heavy vehicles need to be replaced. These vehicles will replace equipment that has reached the end of its useful life in terms of run hours, years of service, mileage and /or cost to maintain. The projected cost is $70,000.

In addition, the Company will invest approximately $ 800,000 in 2000 on various smaller projects, tools and equipment.

Plant additions scheduled to be placed in service in 2001 are as follows:

1. The English Street Transmission Main that will complete the installation of a 24" water main to the Fowler Avenue Standpipe and booster station. This project will allow the full volume of the Standpipe to be utilized on a daily basis to meet peak demand flows. The standpipe can then be refilled at night utilizing off-peak pumping at the resultant lower pumping costs. The projected cost is $150,000.

2. Replacement of private lines. This project will replace undersized private lines throughout the service area that offer limited volume and pressure and no fire protection. Properly sized water mains with associated fire hydrants will be installed. The projected cost is $170,000.

3. Replacement of undersized water mains. This project will replace Company owned water lines that range in size from ½ inch through 4" that are located throughout the service area. Many of the customers that are served from these lines suffer with low water pressure and volume and non-existent or low fire flows. In addition, these lines are made of unlined cast iron or galvanized materials

that, through time, leads to the degradation of water quality due to iron discoloring the water. The projected cost is $170,000.

4. New and replacement water meters. This project will primarily replace meters that are non-remote reading types that are more than 20 years old. The meter replacements will be remote reading units of either the "Touch read" or "radio-reading" style. The projected cost is $250,000.

5. Service line installations. This project will provide new service taps and the installation of the Company-owned portion of service lines. This project will also replace existing services due to conflicts with road widening projects, leaks or the replacement of lead service lines. The projected cost is $210,000.

6. Replacement of fire hydrants. This project will replace fire hydrants that are leaking or malfunctioning in some other manner. Additionally, two nozzle hydrants will be replaced with standard three nozzle hydrants (two hose connections and a pumper nozzle) and hydrants that are on 4" water mains will be targeted for replacement. The projected cost is $100,000.

7. Concrete driveway installation at the water treatment facility. A concrete driveway and parking area will be installed to reduce the maintenance required on the existing stone driveway and parking areas. Additionally, this will allow the Company to comply with City of Danville ordinances that require such paving. The projected cost is $100,000.

8. The replacement of a Distribution Crew Truck. This truck will replace a 1994 crew truck that has reached the end of it's useful life in terms of run hours, years of service, mileage and/or cost to maintain. The projected cost is $70,000.

In addition, the Company will invest approximately $200,000 in 2001 on various smaller projects, tools and equipment.

Q. Mr. Rakocy discusses the need for infrastructure investment in coming years. Would you address the specific needs of the Vermilion County Division ("Division") in this regard?

R. The Division has several significant, unique and pressing needs with respect to infrastructure investment in the coming years. Specifically, the replacement of private water lines, the replacement of undersized water mains, the absence of fire hydrants in populated areas, the presence of fire hydrants on undersized water mains and distribution system caused water quality and/or low pressure complaints are all critical issues which must be addressed by the Division.

Q. What are private water lines?

R. Private water lines are the result of the business practices of the owners prior to the Company being purchased by Consumers Water Company in 1986. The previous owners allowed customers desiring service, but not fronted by a water main, to connect to the nearest water main via a long individual service line or a line installed to serve several residences or businesses. This practice avoided any cost to the previous company for a properly sized water main extension. It did, unfortunately, allow for improperly installed water lines of unspecified materials to be connected to the then existing distribution system. Several of these lines are known to traverse private property, alleys, etc. The best estimate of the total lineal footage of these private lines in the Division equates to approximately 27 miles of pipe. This detail is outlined in an in-house report titled Water Main Replacement Prioritization Program ("Program") completed for the Division by Company engineers which addresses the prioritization of water main replacement projects, including the replacement of private water lines.

Q. Why is the Division replacing these private lines?

A. While the previous owners of the Company allowed these privately owned lines to be installed, they also had a long-standing practice of maintaining these lines if there were any leaks which occurred on the lines after their installation. This practice was no longer followed after Consumers Water Company purchased ISW in 1986. As a result, the Company initially refused to repair water lines that were owned by private individuals or businesses and in many cases were located upon private property to which the Company did not have an easement for maintenance. This led to several formal complaints to the Commission by private line owners whose lines were in need of repair. A settlement of these complaints was negotiated that outlined a clear and precise handling of this issue in the future. This settlement requires the Division to maintain private water lines after first having each customer attached to a private water line sign an agreement which specifies the Company's obligation to maintain and eventually replace the line. Also, there was an understanding between the Company and Commission staff that the Company would diligently work to replace all the private water lines with properly sized water mains and properly spaced fire hydrants to provide customers with adequate water volume and pressure, improved water quality and fire protection.

Q. What are the other significant needs associated with the infrastructure investment in coming years?

R. Among the other significant needs outlined in the Program are the replacement of undersized and aged water mains, fire hydrants attached to undersized water mains and distribution system caused water quality and/or low pressure complaints. Additionally, the Division has a large number of lead service lines which require replacement, and several thousand water meters which are non-remote reading and beyond their normal life expectancy. These needs are described as follows:

1. **The replacement of undersized and aged water mains.** This is a significant issue because 34.7 miles of the Company-owned 247 miles of main, or 14% are less than 6" in diameter. As noted in the previous discussion of private water lines, another 27 miles of water lines are extremely undersized private water lines for which the Company has the responsibility for maintenance and eventual

replacement. Additionally, over 100 miles of water main or approximately 40% of the Company-owned distribution system is pre-1940 vintage, and much of this water main is likely to be 80-100 years old. Lastly, over 65% of the water mains in the Division are unlined cast iron pipe which has a much higher breakage frequency than ductile iron pipe, the material used almost exclusively for mains installed in the Division since 1986.

2. **Fire hydrants attached to undersized water mains.** There are 1,428 fire hydrants in the Division and of that total, 51 or 3.6 % are attached to water mains that 4" in diameter. These fire hydrants will be replaced to improve fire flows.

3. **Distribution system caused water quality and/or low-pressure complaints.** Due to the nature of the Division's distribution system, i.e. a large percentage of undersized and unlined cast iron pipe, private water lines, inadequate distribution grid reinforcement and a large number of dead end lines, numerous water quality and/or low pressure complaints are encountered in specific areas of the distribution system. The area west of the North Fork of the Vermilion River is a prime example. This area, which contains a population of approximately 5,000, is supplied by a single 10" transmission water main. The area has numerous private water lines, miles of unlined and undersized cast iron pipe and numerous dead end water mains. This combination results in numerous annual water quality and/or low-pressure complaints. Other areas throughout the distribution system are plagued by the same problems. Capital projects will be completed annually to address these problems.

4. **The replacement of lead service lines.** Lead service lines were not viewed as problematic until the 1986 amendments to the SDWA. These amendments contained the Lead and Copper Rule which set stringent "Action Levels" for the regulation of lead and copper in drinking water. To avoid any potential violations of the Action Levels, the Division has a program to remove lead service lines from the distribution system. It is estimated that approximately 6,000 lead service lines still exist in the Division. The Division replaces approximately 100 lead service lines per year.

5. **The replacement of old and non-remoted water meters.** The Division has approximately 17,800 meters in the system. Of this total, approximately 3,600 of these meters are generator remote meters, non-remote meters or meters over 20 years old. All of these meters need to be replaced with current remote reading technology to insure accurate customer billings and the efficiencies that are derived from remote water meter reading.

These and other significant infrastructure investment must be made to allow the Division to provide safe, reliable water service in the coming years.

MATERIALS AND SUPPLIES

Q. Please discuss the Division's projection of its test year balance of Materials and Supplies inventory as shown on CIWC Exhibit 12.0, Schedule B-8.1, sponsored by Mr. Leppert.

A. Mr. Leppert discusses the method used to compute the inventory balance. In my opinion, the resulting test year balance of Materials and Supplies inventory, as shown in Schedule B-8.1 of CIWC Exhibit 12.0 for the Vermilion County Division, is reasonable and reflects the levels of materials and supplies which the Division must have on hand for normal operations and emergency repairs.

LABOR COSTS

Q. Would you comment on the forecasted level of labor expense for the Vermilion County Division?

A. Labor expense includes the negotiated wage increases as reflected in the Labor Agreement with Local Union No. 51 of the International Brotherhood of Electrical Workers (effective June 1, 1999 through May 31, 2002) which covers non-salaried, non-office employees. Wage increases for non-union personnel have been forecasted to be 4% in 2001.

TANK PAINTING

Q. Please discuss the forecasted level of tank painting cost for the Vermilion County Division.

A. During the third and fourth quarters of 2000, the Division will paint the North Vermilion standpipe and spheroid elevated tanks in the Vermilion County Division. A contract for approximately $550,000 has been signed with a contractor. The contract calls for the full near white blasting of the tank surfaces due to the existence of lead based primers. This will in turn require the placement of a complete enclosure or "shroud" to prevent the migration of lead-containing dust from leaving the work site. The Company proposes to amortize this expense over a ten-year period. As discussed by Mr. Leppert, the unamortized balance of this cost is included in rate base.

BUSINESS RISK

Q. Have the water quality regulations enacted to date affected the Vermilion County Division?

A. Yes. Mr. Rakocy discusses the relationship between business risks and water quality regulations for the Company. The Safe Drinking Water Act regulations have required a significant level of investment in plant improvements to meet applicable water quality standards. The Vermilion County Division will incur costs of approximately $6 million to provide facilities for nitrate reduction and other regulatory compliance needs. In 1996, a $1.3 million clarifier was constructed to insure compliance with more stringent turbidity and microbial standards. In 1991, the Vermilion County Division invested approximately $13.2 million in water treatment facilities to meet standards in existence at that time. Since 1992, the Division has invested a significant amount of capital in service line replacements to meet the lead/copper standards. The Division plans to continue the replacement of all lead service lines which are presently in use.

Operations and maintenance expense has also increased. As a result of water quality regulation, additional laboratory expense is incurred for additional testing and training of personnel. Also, water residual disposal costs have increased.

Q. Are there characteristics of the Vermilion County Division's service area which affect the risks related to water quality regulation?

A. Yes. A large agriculture area (300 square miles) supplies water to Lake Vermilion. The water supply is subject to contamination not only from nitrates but also from new pesticides, herbicides, or heavy use of chemicals not now seen as problematic, urban runoff and inadequate wastewater treatment. The Company must be continuously ready to meet applicable standards and to protect the health of its customers. The watershed is criss-crossed by numerous state, county and township roads as well as several railroad lines. In fact, the main north-south transportation route (IL Route 1) in east central Illinois crosses the North Fork River, the impounded stream forming Lake Vermilion, three times in the watershed. These roads and railroad lines make the Vermilion County Division's water supply extremely vulnerable to spills of hazardous materials. In addition, at the headwaters of Lake Vermilion, a USEPA Superfund Hazardous Waste Site has recently been remediated. Part of the Polychlorinated Biphenyl ("PCB") Contaminated Superfund site actually extended into the North Fork River. Also, the Vermilion County Division was the location of a much-publicized citizen-monitoring report in late 1995. The Environmental Working Group, a Washington, DC-based environmental lobbying firm, released a report, Weed Killers by the Glass, which listed the Vermilion County Division Water Supply as the most herbicide-laden water supply in the continental United States. This report garnered national press coverage, and local confidence in the quality of the water supply was badly shaken. Lastly, the nature of the Vermilion County Division's water source lends itself to inherent risks. Lake Vermilion is a man-made impoundment, which frequently is minimally supplied in the dry weather months. Therefore, should any contamination occur in the impoundment or the North Fork River, the problem is not easily corrected by dilution or switching to an alternate water supply. Lake Vermilion is the sole supply for 55,000 residents in Vermilion County. All of these issues frame the unique risks surrounding the Vermilion County Division's water supply.

Q. Please discuss the history of the Large General Service rate.

A. The Large General Service Tariff ("LGST") was first approved in Docket 91-0176. Since that time, the only customer served under the LGST has been Devro-Teepak, Inc. ("Teepak"), the Division's largest customer. In each of the last two rate proceedings for the Vermilion County

Division (Dockets 94-0270 and 97-0351), the Company (or its predecessor, Inter-State Water Company), proposed in the initial filing that rates applicable to Teepak be increased by a percentage amount which was higher than the overall average increase. Teepak, however, presented evidence in each proceeding indicating that, if the rate proposed by the Company were approved, it would construct an alternative water supply source and discontinue water purchases from the Company. In light of this evidence, the Commission in each case approved an increase for the LGST rate which was below the system average increase. As a result, the level of revenue provided by Teepak did not cover the full cost-of-service assigned to the Large General Service Customer Class ("LGS Cost"). The difference between the level of revenue provided by Teepak and LGS Cost was assigned in each past proceeding to rates approved for other customer classes, with the result that the approved rates were intended to provide operating revenue equivalent to the full cost of service.

Q. Please describe the LGST.

A. The LGST requires a customer taking service under that rate to enter into a four-year service agreement which provides for minimum usage of at least 35,000 hundred cubic feet ("ccf") per month during each billing period. The LGST provides for a meter charge and flat usage charge per ccf.

Q. Has Teepak signed the four-year service agreement required by the LGST?

A. Yes. Teepak signed a four-year service agreement which became effective in January 2000.

Q. Would you further discuss the alternative supply which Teepak believes it can develop?

A. Yes. In past proceedings, Teepak has presented extensive evidence indicating that it can construct and operate its own water production facility at a cost lower than that associated with continued purchases from the Company. Teepak's evidence has included detailed information regarding engineering plans for the facility, and construction and operating costs. That evidence has included a calculation of the rate impact on remaining customers which would result if Teepak were to discontinue water purchases from the Company. Teepak also has indicated the level of rates it would find acceptable as a continuing customer of the Vermilion County Division.

Q. What is the Company's proposal in this proceeding for the LGST?

A. In preparation for this proceeding, the Company met on several occasions with representatives of Teepak and the City of Danville ("City"). The Company also met to discuss this matter with representatives of the Commission Staff. In the course of this process, Teepak presented information similar to that submitted in past rate proceedings demonstrating its belief that construction of an alternative source of water supply continued to be a viable option. Teepak also indicated, however, that it would continue to purchase water from the Company if the

increase approved in this case for the LGST were limited to 2.5%. The City's representatives also supported this level of increase for Teepak, and agreed that the difference between the level of revenue provided by Teepak and LGS Cost should be provided by other customer classes. The Staff representatives indicated their agreement with this approach. Based on the information provided by Teepak and positions taken by the City and Staff, the Company has proposed that the LGST rates be increased in this proceeding by 2.5%. The Company's proposal, however, is conditioned on continued assignment of the difference between the level of revenue provided by Teepak and LGS Cost to other customer classes. If the Commission's Order in this proceeding does not approve such an assignment, the Company proposes that the LGST rate be increased to a level above the overall average increase for the Vermilion County Division.

Q. Is the proposed increase for the LGST in the best interest of other customers?

A. Yes. As indicated above, Teepak has demonstrated that it will go forward with development of an alternative water supply source if an increase greater than 2.5% is approved. As a result, Teepak would discontinue water purchases from CIWC. The substantial fixed costs incurred in providing service, however, would be unchanged. Accordingly, if Teepak were to discontinue purchases, other customers would be required to provide revenue needed to pay the fixed costs which would otherwise be covered by revenue from Teepak. This would require approval of higher rates for the other customers.

Q. Does this conclude your testimony?

A. Yes, it does.