ORIGINAL

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE COMMISSION'S INVESTIGATION OF TWIN LAKES UTILITIES, INC.'S SEWER SYSTEM INFLOW AND INFILTRATION	)))))	CAUSE NO. 43128 S1
		APPROVED: NOV 1 2 2009

BY THE COMMISSION
Jeffrey L. Golc, Commissioner
Aaron A. Schmoll, Administrative Law Judge

In Cause No. 43128, the Petitioner, Twin Lakes Utilities, Inc. ("Petitioner" or "Twin Lakes") sought Indiana Utility Regulatory Commission ("Commission") approval of a new schedule of rates and charges for its water and wastewater utility. In its January 16, 2008 Order (the "43128 Order"), the Commission approved, with certain modifications, the Settlement Agreement submitted in that Cause between the Petitioner, the Indiana Office of the Utility Consumer Counselor ("OUCC") and the Intervenor, Lakes of the Four Seasons Property Owners' Association ("LOFS"). The Commission modified the Settlement Agreement by requiring Petitioner to complete a remediation project designed to eliminate the overflows of Manhole #307 before Petitioner could implement its 5.04% sewer rate increase. That Order also noted concern that much of Petitioner's system remains comprised of transite pipe that is prone to failure with age and that Petitioner has been unable to resolve continued infiltration problems over a fifteen year period. Accordingly, the Commission established this Subdocket to address Petitioner's continued inflow and infiltration problem and to examine the appropriateness of prioritizing the replacement of transite pipe based on flow data gathered after Petitioner's 1992 Engineering Study. We noted that, absent flow data, the Subdocket would examine an appropriate timeframe for the installation of flow monitoring devices or other monitors as a means of continuing to explore a subset of issues raised in the 43128 Order. Finally, we initiated the Subdocket to address the appropriateness of an increase in Petitioner's current sewer system cleaning schedule, on a percentage of system cleaned per year.

Pursuant to notice duly given and published, the Commission conducted a Technical Conference on May 15, 2008, at 10:30 a.m. in Room 224 of the National City Center, Indianapolis, Indiana. Petitioner, the OUCC, and LOFS attended the Technical Conference. No other members of the general public appeared. Various alternatives for addressing the manhole remediation were discussed, and the Petitioner requested additional time to explore the alternatives suggested by the engineer initially hired by LOFS.

The Commission conducted a Status Conference on August 6, 2008 at 10:30 a.m. in Room 224 of the National City Center, Indianapolis, Indiana. Petitioner, the OUCC, and LOFS attended. No other members of the general public appeared. Petitioner presented further analyses of the engineering and financial aspects of the alternatives for addressing the manhole remediation.

Pursuant to notice duly given and published, a second Technical Conference was held on February 18, 2009 at 3:00 p.m. in Room 224 of the National City Center, Indianapolis, Indiana. Petitioner, the OUCC, and LOFS attended the Technical Conference. No other members of the general public appeared. At the Technical Conference, Petitioner indicated that it has remediated Manhole #307 in accordance with the Commission's Order in the Main Docket, and is therefore entitled to receive its sewer rate increase as contemplated in that Order. Petitioner also presented its final plan addressing the inflow and infiltration problems. On February 24, 2009, the Presiding Officers issued a Docket Entry establishing the procedural schedule to allow the parties an opportunity to address the issues.

On February 27, 2009, Petitioner filed its Submission of Direct Testimony in the Subdocket and its Verified Statement of Remediation of Manhole #307 in the Main Docket. The OUCC and LOFS filed their respective testimony on April 6, 2009, and Petitioner pre-filed its rebuttal testimony on April 13, 2009.

Pursuant to legal notice duly published in accordance with Indiana law, the Commission convened a public evidentiary hearing on April 17, 2009 at 9:30 a.m. in Room 222 of the National City Center, Indianapolis, Indiana. Petitioner, the OUCC, and LOFS appeared by counsel. Each party presented their respective evidence. No members of the general public participated at the evidentiary hearing.

Subsequent to the hearing, on August 13, 2009, the Commission issued a docket entry requesting additional monitoring data relating to Manhole #307. Twin Lakes filed its response on August 19, 2009, and LOFS filed its objections to certain incomplete data on September 4, 2009. On September 30, 2009, Twin Lakes filed its response with additional data.

Based upon applicable law and the evidence of record in this Cause the Commission now finds that:

1. **Notice and Jurisdiction.** Prior to conducting the hearing in this cause, the Commission published notice pursuant to the requirements of Indiana law. Petitioner is a public utility defined by I.C. 8-1-2-1(a)(2) and (a)(3), and we have continuing jurisdiction over both Petitioner and the subject matter of this Subdocket.

2. **Petitioner's Characteristics.** Petitioner provides water and sewer disposal service to approximately 3,000 customers within a rural area straddling the Lake and Porter County Line. Most of Petitioner's customers are residential and located within the Lakes of the Four Seasons development. Petitioner is a subsidiary of Utilities, Inc., which also owns several other utilities nationwide.

3. **Purpose of Subdocket.** In the 43128 Order, we found:

> [I]t appears Petitioner's transite pipe is a significant contributor to the underlying infiltration problems. Twin Lakes acknowledged as much in its July 16, 2007 *Verified Responses to Docket Entry Questions*: "Twin Lakes continues to face the

fact that much of its system is still comprised of transite pipe that is prone to failure with age." It is apparent that Twin Lakes must take a more active role in addressing the infiltration problem rather than what has historically occurred through attempts to remedy problems following significant customer complaints. The purpose of the subdocket will be to examine the appropriateness of prioritizing the replacement of transite pipe based on the flow data from flow monitoring devices discussed in the 1992 Engineering Study. If that data is not available, the subdocket shall examine an appropriate timeframe for the installation of flow monitoring devices or other monitoring activities and a timeframe for collecting data that would demonstrate the areas in which infiltration is occurring. In addition, the subdocket will address whether an increase in the current cleaning schedule of its sewer system, on a percentage of system cleaned per year, would be appropriate.

Order at 23.

Further, pursuant to the Presiding Officers' Docket Entry dated March 19, 2009 in Cause 43128, this Subdocket addresses Petitioner's request to place into effect the 5.04% increase in its rates and charges reflected in Petitioner's proposed tariff filings as the issue of whether Petitioner "remediated" Manhole 307 was a question of fact.

4. **Evidence Presented.**

a. Petitioner's Direct Evidence.

Twin Lakes sponsored testimony and exhibits of its senior operations officer, Paul Burris, who is Utilities, Inc.'s Regional Vice President for its Midwestern and Western Regions. Mr. Burris described several actions undertaken by Twin Lakes to improve its sewer service since mid-2007, including the remediation of wastewater overflows from Manhole #307. He included a list of nine sewer projects completed since July, 2007, totaling $106,400, set forth in Exhibit "B" to his testimony, and also described the utility's plans to approximately double the amount of its investment, to roughly one million dollars per year over the next five years, to address infiltration. The list of anticipated projects and their timetable was included as Exhibit "C" to Mr. Burris' testimony. These projects include cleaning, repairing, and replacing various components of the sewer collection system. Mr. Burris further testified that Twin Lakes had spent in excess of $50,000 in 2008 for the services of the LOFS's preferred engineer, John Phipps of Nies Engineering, Inc., for additional services relating to Twin Lakes' efforts to reduce infiltration.

b. OUCC's Responsive Evidence.

The OUCC sponsored the testimony of Utility Analyst Roger Pettijohn. Mr. Pettijohn's testimony discussed generally Petitioner's efforts to correct its collection system and its five year plan. Mr. Pettijohn noted that according to quarterly reports sent to the Commission, from March 2004 through September 2007, Twin Lakes has spent $574,880 to maintain and renovate its

wastewater collection system. He noted that much of the expenditure involved televising in order to identify problems in the manner of manhole repair, eliminating root and other service lateral intrusion, jet cleaning, upgrading lift stations, flow monitoring, and replacing sewer lines.

To address the manhole overflow problem, Mr. Pettijohn noted that Twin Lakes considered addressing the manhole overflow problem with a design that included grinder pumps attached to homes. He noted that Twin Lakes abandoned this plan because of the approximately $3 million construction cost and higher operational costs. Mr. Pettijohn noted that Mr. Burris stated that $106,000 has been spent toward diminishing overflows from Manhole #307, not including the more than $50,000 Twin Lakes stated it spent on Nies Engineering, Inc. to investigate installing grinder pumps. He added that "Phase I - Lift Station 'B' Area" of the utility's five-year-plan involves a new lift station and continuing I&I remediation procedures, which should further reduce overflows in that part of the collection system. Finally, Mr. Pettijohn noted that Petitioner's data indicates that since the expenditures, the manhole has overflowed only once and under extreme rainfall conditions; i.e. Hurricane Ike. Mr. Pettijohn stated that Petitioner's efforts since 2004 should be considered both significant, in that Twin Lakes has spent approximately $500,000, and appropriate, in that the efforts relied on reasonable methods and were generally effective.

Mr. Pettijohn noted that in his testimony, Mr. Burris described a four-phase remediation plan to be completed, over five years at a cost of $1 million per year. Mr. Pettijohn considered this to be an aggressive approach that effectively doubles the historical annual expense for system maintenance and repair. He noted that the plan includes televising, smoke testing, root cutting, and flow monitoring. He added that the plan also includes the repair of manholes, line and lift stations; replacement of lines; and renovation of lift station B. Mr. Pettijohn stated that the plan appears to be solid and relies on standard O&M procedures. However, he noted that Twin Lakes has provided no information about the rate impact. He also stated that it may be appropriate for Twin Lakes to convert its five-year plan into a ten-year plan. While using the same total I&I remediation investment, he stated that a $500,000 per year expenditure will still have a significant impact on rates since Petitioner is entitled to recover O&M costs as well as a return on any capital investment.

When asked whether he recommended a ten year plan, Mr. Pettijohn stated that the acceleration of I&I remediation proposals and costs are best determined by those doing the planning and those paying for the results. He stated that Mr. Burris should work with the customers and the Association to develop a consensus. Lacking any such consensus, Mr. Pettijohn stated that a ten-year plan seems a more measured approach and reduces rate impact.

Mr. Pettijohn acknowledged he did not know to what extent the customers of the utility were willing to pay higher rates to prevent overflows. Mr. Pettijohn stated that in a perfect world, there would be no overflows and no rate increases, but both are going to happen. He added that current evidence suggests Manhole #307 will overflow only when there is significant or even torrential rainfall and further that the overflow occurrence will abate with proposed improvements.

c. LOFS' Responsive Evidence.

i. *Rick Cleveland.* Mr. Rick Cleveland, Community Manager of Lakes of the Four Seasons Property Owners' Association, testified that LOFS was quite surprised when the Petitioner declared for the first time (without prior notice to LOFS) during the Commission's Technical Conference on February 18, 2009 that Petitioner had successfully remediated the overflows of Manhole #307. Mr. Cleveland testified that the last statement from Petitioner to LOFS prior to the February 18, 2009 Technical Conference was Petitioner's January 16, 2009 IURC filing in Cause 43128 that stated, "Twin Lakes is prepared to present to the Commission for its expeditious approval a detailed plan to more systematically and comprehensively address the inflow and infiltration which all parties recognize plagues Twin Lakes' sewer system." Mr. Cleveland testified that it was LOFS' understanding as of the February 18, 2009 Technical Conference that Petitioner was working on identifying a solution to the Manhole #307 issue, but that it had not solved the problem. Mr. Cleveland stated that through a series of technical conferences throughout 2008, Petitioner presented a number of potential solutions but never identified a plan of action to remediate the issue. Mr. Cleveland observed that sometime between its January 16th filing and the February 18th Technical Conference, it appears that Petitioner decided that the problem had been remediated. Mr. Cleveland stated that, while Petitioner admits there was no specific action undertaken between the two dates to remedy the problem, it claims the remediation was accomplished through a series of projects undertaken over several months as reflected in Exhibit B to Mr. Burris's testimony. Mr. Cleveland testified that LOFS is concerned that Petitioner has made a rushed, unilateral declaration that the Manhole #307 problem has been remediated when it had indicated just thirty days earlier that it needed to implement a "detailed plan to more systematically and comprehensively address the inflow and infiltration which all parties recognize plagues Twin Lakes' sewer system."

When asked if he had any evidence that the overflows of Manhole #307 have not been remediated, Mr. Cleveland testified that on March 10, 2009, LOFS Assistant Lakes Director, Paul Borkowski, passed by Manhole #307 at approximately 7:45 a.m. and noticed that it was overflowing liquid in a 1-inch stream that was spilling into Lake Holiday. Mr. Cleveland testified that by the time Mr. Borkowski returned to take a picture and take a sample of the discharge at approximately 8:11 a.m., the overflows had stopped. Mr. Cleveland stated that when Mr. Borkowski arrived at the manhole at 8:11 a.m., there were two Twin Lakes' employees present at the manhole. He stated that Mr. Borkowski also phoned Petitioner's office to report the incident that morning. Attached to Mr. Cleveland's testimony was Exhibit RC-1, which was an affidavit by Mr. Borkowski regarding the incident.

Mr. Cleveland attached as an exhibit to his testimony weather data for March 10, 2009 for the closest weather station in Crown Point, Indiana reported at www.wunderground.com., which shows that on March 10, 2009, the total rainfall was 1.27 inches. He also testified that, according to www.weather.com for the Crown Point, Indiana area, there were 1.90 inches of rainfall on March 7, 2009, 1.47 inches on March 8, 2009, 1.08 inches on March 9, 2009 and .32 inches on March 10, 2009. Mr. Cleveland testified that the March 10, 2009 surcharge contradicts Petitioners argument and raises the question of whether LOFS will continue to experience overflows with Manhole #307 as normal spring rains continue.

Mr. Cleveland testified that for over eighteen (18) years, sewage from the manholes in the Petitioner's system has overflowed during rain events. Mr. Cleveland noted that as far back as 1991, Petitioner did not deny that there have been service related problems incurred by some of its customers but contended that the problems were not as extensive as LOFS witnesses implied. He observed that in 1991 the Commission found that a preventative maintenance program was needed to check periodically the entire sewer system for damage, water infiltration, cracks, leaks and settling of pipes and ordered Petitioner to submit a preventative maintenance program. Mr. Cleveland testified that if, as Petitioner now claims, one of the primary reasons for the overflows was the presence of a root, he would expect that such a root would have been detected and removed before it created the blockage that Petitioner suggests. Thus, Mr. Cleveland questioned whether Petitioner has conscientiously, consistently, and effectively obeyed the Commission's orders to implement a preventative maintenance program. Based on Petitioner's relatively sudden declaration that it remediated the overflows at Manhole #307 and on the fact that Manhole #307 surcharged just ten (10) days after Petitioner's declaration, Mr. Cleveland testified that he does not believe the Petitioner has rectified the problem. Mr. Cleveland also noted that the testimony filed by Mr. Kenning of DLZ Engineers also suggests that there are engineering concerns about Petitioner's remediation. As such, Mr. Cleveland concluded that Petitioner is not yet entitled to implement its 5.04% sewer rate increase because it has not met its burden to show that it has successfully remediated the overflows of Manhole #307.

ii. *Anthony Kenning.* Anthony Kenning, a Registered Professional Engineer employed by DLZ and hired by LOFS for purposes of this Subdocket, testified that based on the information he reviewed and the reported overflow of Manhole #307 on March 10, 2009, his opinion is that Petitioner has not satisfactorily remediated the overflows of Manhole #307. Mr. Kenning explained that the biggest indicator that the surcharging has not been satisfactorily remediated is the report that Manhole #307 overflowed just two weeks after Twin Lakes claimed the problem was remediated, and the overflow occurred during a moderate rain event. Mr. Kenning testified that it is important to note that Petitioner's sewer system is a separated sanitary sewer system, meaning the system is designed so that storm water is collected separately from sewage. Therefore, he stated, there should not be significant inflow and infiltration that causes manholes to surcharge – even during significant rain events.

Mr. Kenning also testified that several of the "remediation" projects listed in Exhibit B to Mr. Burris's testimony have little or no impact or provide inconclusive evidence as to whether Manhole #307 overflows or not. Specifically, Mr. Kenning noted that the "installation of 5 backwater valves and ball valves on individual single family home sewer laterals with reported history of inundated basements" would likely not mitigate overflows at Manhole #307 for two reasons. First, the homes in question where the work was reported to have been done are located downstream of Lift Station B. Lift Station B helps isolate Manhole #307 from the homes where the work was performed. Secondly, effective storage within the system (e.g. flooded basements) has been removed through installation of the valves. Mr. Kenning stated that it is reported that portions of the service laterals to the homes were replaced as part of the valve installations. He testified that this replacement could eliminate some infiltration, but this amount has not been

quantified by Petitioner and since these projects are downstream of Lift Station B, their effects on Manhole #307 are likely minimal and non-quantifiable.

Additionally, Mr. Kenning testified that the project described on Mr. Burris's Exhibit B described as "the replacement of 10-lineal feet of sewer main on Harbor Park Court" project would also provide minimal if any benefit to Manhole #307. He stated that any impacts to Manhole #307 are non-quantifiable due to the fact that the project was located downstream of Lift Station B. Mr. Kenning also noted that the project described by Mr. Burris as "televise and clean 5,000 feet of sewer main on Trailside Drive and Rustic" is also downstream of Lift Station B and Lift Station D and would likely provide minimal contribution toward the mitigation of overflowing in Manhole #307. Mr. Kenning testified that this project is downstream of Lift Station D, and is therefore further removed from Manhole #307. Finally, Mr. Kenning noted that the project described in Mr. Burris' Exhibit B as "replaced 204 linear feet of sewer main on Trailside Drive" is also downstream of Lift Station B and Lift Station D and would likely provide minimal contribution toward the mitigation of overflows in Manhole #307. Mr. Kenning testified that he does not believe that Petitioner has provided evidence that the other projects listed in Mr. Burris's Exhibit B alleviated the overflows and noted specifically that there has been insufficient pre- or post-construction flow metering done or provided by Petitioner to support this claim.

When asked his opinion on the remedial effect of Petitioner's removal of a sizeable root infiltration in the main collection line from the west end of system to the wastewater treatment plant, Mr. Kenning testified that he does not know the details of the root infiltration or the degree of the blockage other than it was downstream of Lift Station B and would likely have a minimal effect on Manhole #307. Mr. Kenning stated that the Petitioner should have been videotaping this segment over the years and it should have never gotten to the point to create a blockage large enough to cause overflowing manholes. Mr. Kenning testified that if Petitioner was performing preventative maintenance as required, he questions how and why it allowed a sizeable root to infiltrate a main collection line – especially to the extent that it caused Manhole #307 to overflow for years. Mr. Kenning observed that this suggests Petitioner has not been performing the preventative maintenance and system cleaning operations as it should. He also testified that the condition of the remaining system should be identified via video inspection. Mr. Kenning recommended that the system should be video inspected and cleaned within the next year as opposed to over the next thirty-six months.

Mr. Kenning testified that the fact that Manhole #307 overflowed during a moderate rain event on March 10, 2009—after Petitioner's declaration that the problem was remediated—raises a red flag and supports his conclusion that Petitioner's projects have not satisfactorily remediated the problem. He stated that Accuweather shows the total rainfall on March 10th to be approximately 1.6 inches. From an engineering perspective, Mr. Kenning testified that Petitioner is wrong when it states that it is impossible to eliminate all overflows. He stated that because Petitioner's system is separated, rain events should not cause manhole overflows. Ultimately, Mr. Kenning opined that it is premature to conclude that Petitioner has cured the Manhole #307 problem because more data is necessary. He recommend that the Commission order Petitioner to monitor the flow and overflow activity from Manhole #307 through at least two significant rain events that are in excess of a ten (10) year recurrence interval. At that time, if the data reveals no

surcharging, and assuming Petitioner continues to perform necessary repairs and preventative maintenance on the system, it would be appropriate to conclude that Petitioner has taken reasonable steps to remedy the current overflows of Manhole #307.

Mr. Kenning explained that to qualify as a rain event that is in excess of a ten year recurrence interval, data should be gathered over the course of two rain events where the probability of the depth of rain in a single event in any given year is 1 in 10, or where the percent chance of the occurrence of the rain event is ten percent (10%). For the Lakes of the Four Seasons geographic area, Mr. Kenning testified that a rainfall measuring at least 1.98 inches over a duration of 1 hour or 4.22 inches over a duration of 24 hours has a ten year recurrence interval as determined by Bulletin 71, "Rainfall Frequency Atlas of the Midwest" published by the Midwestern Climate Center. He stated that this method of measuring rain events, and their associated frequency, is one monitored and recorded by the U.S. Geological Survey. Mr. Kenning testified that it is important to collect data from two, three or more 10-year rainfall events in order to provide potential opportunity to collect data during periods of varying hydrologic conditions (e.g. saturated ground conditions, dry ground conditions). As for the selection of the 10-year rain event, Mr. Kenning testified that typical storm sewer designs are based on a 10-year recurrence period.

d. Petitioner's Rebuttal Evidence.

i. *Paul Burris.* On rebuttal, Mr. Burris noted his agreement with Mr. Pettijohn from that Twin Lakes' customers might be better off if the utility spread the planned infrastructure investments over ten years instead of five years. He did not, however, express a preference for one timeframe over the other.

ii. *Brian Baum.* Twin Lakes also sponsored the rebuttal testimony of its employee, field operator Brian Baum. Mr. Baum was present at Manhole #307 on the morning in question, described his inspection of the manhole along with his colleague Mark Hein that morning. Twin Lakes personnel had been monitoring Manhole #307 and the nearby Lift Station B throughout the previous night given the significant amount of rain that had been falling in the area. Mr. Baum stated that if his visual inspection revealed that the level of wastewater was rising inside that manhole to a point near the top, he was prepared to activate an auxiliary pump at Lift Station B to relieve the pressure on the sewer line and reduce the level of wastewater inside Manhole #307. Based on his monitoring of wastewater levels within that manhole, however, he determined that the level peaked some six inches from the top, at which point it receded, obviating the need to take any further action.

5. Discussion and Findings.

As noted above, this Subdocket was established to address four issues: (1) Petitioner's continued inflow and infiltration problem; (2) the appropriateness of prioritizing the replacement of transite pipe based on flow data gathered after Petitioner's 1992 Engineering Study or in the absence of such data, an appropriate timeframe to install monitoring devices; (3) the appropriateness of increasing Petitioner's current sewer system cleaning schedule, on a percentage of system cleaned per year; and (4) whether Petitioner has sufficiently remediated the

overflows of Manhole #307 to justify the implementation of the 5.04% increase in its sewer rates and charges as reflected in the Main Docket. We will address each issue in turn.

a. Continued Inflow and Infiltration Problems. The evidence in this Subdocket makes clear that the age and condition of Petitioner's system continues to plague the system through continuing inflow and infiltration. Mr. Burris stated: "The Twin Lakes facility, pretty much here we know has some old, old, old pipes, and from what we're finding even in the last week, it has holes in it...." Tr. A-31. Although Petitioner has offered evidence of its efforts to remediate Manhole #307, we conclude that Petitioner has not solved the system-wide inflow and infiltration problem. In fact, as we discuss in more detail below, the evidence suggests that even though the inflow and infiltration problem has been the subject of our regulatory scrutiny for nearly twenty years, Petitioner has failed to follow through on the Commission's past declarations with respect to this issue. During this time, the Commission has patiently listened to Twin Lakes' promise to reduce inflow and infiltration into its sanitary sewer. Much to our chagrin, the results have not matched the promises made. This is our last, best, and final attempt to instruct Twin Lakes that immediate and sustained improvements must made to its system. Absent such improvement, the Commission may need to conduct additional review of Twin Lakes' operations. *See* Ind. Code § 8-1-30-3 to -5 (providing Commission with authority to take appropriate action with respect to continuing violations of Commission Orders or severe deficiencies a utility has failed to remedy). We will require Twin Lakes to develop a strategic and systematic way to handle ongoing problems and a planned maintenance program to avoid new problems. Although Twin Lakes' system is a "sanitary sewer," the inflow and infiltration problems are so extensive that the strategy to alleviate the problems may involve considering the system as a combined sewer.

The inflow and infiltration problems extend beyond the problems that have received much of this investigation's focus with respect to Manhole #307. For instance, the flow monitoring hydrograph of the week of March 8, 2008 for Manhole #307 indicates a backwater response to a "moderate" rain event, producing backward flow of the sewer peaking at approximately negative 300 gallons per minute and rising to approximately 11 feet (the approximate rim level of the structure). The 1.6 inch rain event is well below any event that could be described as a *force majeure*. Such backwater conditions are caused by a lack of capacity downstream from the monitoring point. The capacity deficiency may be attributed to bottlenecks, inadequate slope, undersized piping, debris/grease accumulation, or any combination thereof. Any remedy to the capacity issue must consider the downstream hydraulics and not on a physical fix to Manhole # 307 itself.

b. Prioritizing the Replacement of Transite Pipe & Installing Monitoring. In the Main Docket we stated that, in this Subdocket, we would examine the appropriateness of prioritizing the replacement of transite pipe based on flow data gathered after Petitioner's 1992 Engineering Study. We noted that, absent flow data, the Subdocket would examine an appropriate timeframe for the installation of flow monitoring devices or other monitors as a means of continuing to explore a subset of issues raised in the Main Docket. Mr. Burris testified at the evidentiary hearing in response to questions from the Presiding Officer that he had not been able to locate the actual flow monitor data that the Petitioner collected before 2008. More troubling is Mr. Burris's indication that three of the four flow monitors currently in place were

installed in the past year. The lack of monitoring is especially troubling when the Commission considers that the 1992 Engineering Study recommended flow monitoring if problems associated with inflow and infiltration persisted following manhole repair. Petitioner verified that all repairs called for in the study were made. *See* 43128 Order at 23.

The record establishes that Petitioner's system is composed of asbestos or transite pipe that continues to deteriorate. Mr. Burris acknowledged that in the past, Petitioner failed to proactively replace the deteriorating pipe, and instead described Petitioner's approach as a "fire situation" where the Petitioner only made replacements after discovering a problem. *Tr. A-42.*

Part of the basis for initiating this Subdocket is the Commission's disapproval of Petitioner's "fire situation" approach to inflow and infiltration problems. Additional monitoring would allow Petitioner to more carefully craft a solution to the ongoing infiltration. However, Petitioner's proposed plan is lacking direction. Cleaning a random 10 percent of its system may not necessarily address the areas that are in most need of attention given that the utility has no data from which to determine where such efforts should be focused. In its 1991 Order in Cause 39050, the Commission found that "inspecting and cleaning 10 percent of the sewer mains annually, as proposed by the Petitioner, is not adequate." 1991 Ind. PUC LEXIS 128 at *57. The Commission is concerned that such a general plan, given Petitioner's growing system-wide problems, will yield poor results and not provide customers, or the utility, substantial benefits. Moreover, Petitioner has not accounted for the need to revisit areas such as where the root ball was removed in the downstream section of its system, where it is more likely to have additional blockages from repeated root intrusions.

The first step for Petitioner is to implement recommendations in the 1992 Engineering Report that were never carried through. Petitioner's system includes approximately 33 miles of collection pipe, or approximately 173,000 linear feet. Given the size of Petitioner's collection system and in order to adequately monitor the system's function and inflow problems, the Commission hereby orders Petitioner to flow monitor its entire system through a flow monitoring service with a minimum of ten flow monitors in place and maintained for at least a 90-day period beginning March 1, 2010. Petitioner shall include with the flow monitoring data of Petitioner's system, a scatter-graph and I/I analysis of its flow monitoring report, due to the Commission within 45 days of completion of flow monitoring.

As part of its four phase plan, Petitioner has also indicated that it intends to replace Lift Station B due to the fact that the current "dry can" design is inappropriate and functions poorly. Given that Lift Station B is directly connected to the portion of the sewer collection system on which Manhole #307 is also located, we agree that the replacement of the lift station with a submersible station is appropriate. Petitioner is instructed to submit a Design Summary of the proposed capital improvement within 30 days of the date of this Order for Commission review.

c. Increasing Petitioner's Current Sewer System Cleaning Schedule. Petitioner proposes cleaning its sewer system at a rate of ten percent of the system per year, depending on whether Petitioner's budget allows for the expense. As stated above, Petitioner has not made a commitment to this cleaning schedule, but rather has indicated the cleaning schedule is a goal whose attainment depends upon other factors, such as the budget and the expenses Petitioner

incurs for other capital expenditures and operating and maintenance expenses. As noted above, the Commission has previously rejected Petitioner's annual 10 percent cleaning proposal as being inadequate.

With the increased flow monitoring ordered above, the Commission finds that Twin Lakes Utilities, Inc. shall commence a recurring Televised Line Inspection program. The program shall place all gravity sewers within the utility on a 10-year televising cycle, requiring that 10% of the system be televised each calendar year. The program shall require televised lines be cleaned prior to inspection, 90% of the pipe's circumference be visible, and all debris encountered within the system be removed. With videoing, rodding, and smoke testing being driven by the monitoring data, supplemental cleaning shall be directed to locations that are more likely to address actual problems in Petitioner's system rather than waste utility resources, and ultimately, ratepayer funds.

Accordingly, on or before July 1, 2010, Petitioner shall file a 10-year Televised Line Inspection and Capital Improvement Program (CIP). Twin Lakes Utilities, Inc. shall submit in conjunction with its Annual Report a supplement indicating activity related to its CIP and other preventative maintenance activities, including: a) the portions of its system scheduled for cleaning, repair, and replacement in the coming year; b) the portions of its system that were cleaned, televised, repaired in the previous year and the location and percentage of transite pipe that was rehabilitated/replaced during the preceding year; and c) any additional remedial projects performed during the preceding year. Finally, consistent with our findings above, Petitioner shall report any sanitary sewer overflow activity to the Commission.

d. Remediation of Manhole #307 to Warrant Imposition of 5.04% Rate Increase. Taken as a whole, the evidence, including the conflicting eyewitness accounts and the flow data collected at Manhole #307, is inconclusive as to whether a sanitary sewer overflow occurred on the morning of March 10, 2009. However, it is troubling that despite the alleged "remediation" declared by Petitioner, questions could even arise on whether Manhole #307 overflows. Following the hearing, the Commission ordered Petitioner to file flow data for three other weeks in which rain events occurred. Petitioner filed a response on August 19, 2009 and additional data on September 30, 2009 in response to Intervenor's objection. In none of those instances did the water level approach the top of Manhole #307.

When the Commission approved the parties' settlement in Cause 43128, Petitioner had intended to complete a "Remediation Project" that would ultimately have required construction permits issued by the Indiana Department of Environmental Management. See Settlement Agreement at 3. From the Commission's standpoint, it was never intended that there would need to be a factual determination on "remediation" or that Petitioner could simply declare "remediation" had occurred. Rather than undertaking a large construction project, Petitioner offered a list of relatively small projects that, on the whole, appear to have relieved some of the problems that were causing Manhole #307 to overflow. While the evidence is disputed as to whether all of the listed projects contributed to resolving the overflows, Petitioner has done enough, even if minimally so, to warrant its previously approved 5.04% sewer rate increase.

However, in authorizing its implementation of its sewer rate increase, we must reject Petitioner's repeated contentions that the Commission's withholding of its approved sewer rate increase in Cause 43128 and this Subdocket constitutes "extralegal precondition" and "is especially troubling," concluding that the Commission's actions should be reconsidered in favor of "better ratemaking policy." *See* Petitioner's Petition for Reconsideration, at 1, 3 (filed Feb. 5, 2008 in Cause 43128); *see also* Petitioner's Proposed Form of Order, at 4 (filed May 15, 2009 in Cause 43128-S1) ("If [the Commission] were ever able to justify the extraordinary punitive action of withholding recovery of proven used and useful costs, [the Commission] would require much more in terms of a clear record of the utility's bad acts or willful indifference resulting in continued IDEM violations and significant impact on the water quality off the lake adjacent to Manhole #307."); Petitioner's Direct Testimony of Paul Burris, at 4, 5 (filed Feb. 27, 2009 in Cause 43128-S1) (discussing the Commission's "sua sponte" establishment of this Subdocket and "the Commission's unprecedented action to withhold recovery of previously-incurred used and useful investments as 'additional incentive' to make further investments...").

The purpose of this Subdocket was not, as opined by Petitioner, to give Petitioner additional incentive to increase investment in its sewer utility. Rather, the record clearly showed that this Commission has approved rate increases for Petitioner in the past, and Petitioner has repeatedly indicated that problems would be addressed. Despite the approved rate increases, Petitioner has repeatedly failed to resolve surcharges in its sewer system. If that is the type of "better ratemaking policy" that Petitioner anticipated, the Commission would suggest that Petitioner reconsider its duty as a public utility to provide adequate service in exchange for receiving appropriate rate relief—Petitioner appears to be too focused on the second half of that equation. From the Commission's perspective, withholding Petitioner's sewer rate increase has focused the utility's attention in a manner that past rate approvals and admonitions over the past 18 years have not. Not only is that "better ratemaking policy," it is an appropriate reaction by this regulatory body in the face of the history presented here.

e. Twin Lake's Ongoing Relationship with Intervenor. Finally, it is apparent that Petitioner and Intervenor continue to harbour a mutual distrust of one another, a fact we noted in our 1991 Order in Cause No. 39050. 1991 Ind. PUC LEXIS 128 at *52. However, both parties have a mutual interest in improving service quality and maintaining reasonable sewer rates. Petitioner has indicated its plans to implement a sump pump inspection program based on the results of smoke testing that suggests sump pump connections are contributing to the inflow problem. Given that Intervenor represents over 99 percent of Petitioner's customers, LOFS has an opportunity to play a major role in assisting Twin Lakes in implementing its sump pump program, whether by informing its membership of the need to disconnect sump pumps from the sewer system, or by serving as a liaison between the utility and homeowners. At the same time, Twin Lakes must improve the frequency, clarity, and transparency of its communications with LOFS and is directed to update LOFS of ongoing projects and improvements on a regular basis.

IT IS, THEREFORE, ORDERED BY THE INDIANA UTILITY REGULATORY COMMISSION that:

1. Twin Lakes Utilities, Inc. shall conduct a 90-day flow monitoring study consisting of ten (10) meters to commence data collection on or about March 1, 2010 consistent with Paragraph 5b above. On or before April 15, 2010, Petitioner shall file with the Commission a report indicating the locations of the monitors, and the monitoring data for the month of March and within 45 days of completion monitoring shall file the final flow monitoring report, scattergraph analysis and I/I report.

2. Twin Lakes Utilities, Inc. shall file its Televised Line Inspection and System Improvement program on or before July 1, 2010 consistent with Paragraph 5c above.

3. Twin Lakes shall be allowed to increase its sewer rates by 5.04% on an across-the-board basis. Prior to placing these rates into effect, Petitioner shall file a revised tariff with the Commission's Water/Sewer Division. These rates are effective for applicable sewer service on and after Water/Sewer Division approval of the tariff.

4. The Commission's investigation, initiated in the Commission's Order in Cause 43128 on January 16, 2008, is hereby closed. Nothing prohibits the Commission from initiating further investigations should the facts and circumstances warrant additional Commission review.

5. This Order shall be effective on and after the date of its approval.

HARDY, ATTERHOLT, GOLC, LANDIS, AND ZIEGNER CONCUR:

APPROVED: NOV 1 2 2009

I hereby certify that the above is a true and correct copy of the Order as approved.

Brenda A. Howe

Brenda A. Howe
Secretary to the Commission