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Oct 2 10 23 AM '03

CITY CLERKS OFFICE
CITY OF VENICE

September 25, 2003

Michele Duggan, Environmental Specialist
Domestic Wastewater Section
Florida Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619

RECEIVED
CITY OF VENICE
OCT 2 10 23 AM '03

Re: City of Venice Eastside WWTF;
Draft Consent Order OGC File No. 03-0779

Dear Ms. Duggan:

As we previously discussed, the City of Venice recently retained the undersigned to assist the City to respond to the Department's September 11, 2002 Warning Letter and June 4, 2003 proposed Consent Order. We appreciate that you have been willing to wait for the undersigned to investigate and become familiar with the facts and circumstances of the matters addressed in the foregoing documents. As we discussed last week, the City is submitting this explanation and requests an opportunity to meet with the Department regarding this matter. You tentatively offered October 1, 2003 as a potential date for such a meeting and I have verified that the necessary City representatives, including the undersigned, are available to meet on that date. We would prefer to meet at 1:30 if that is possible.

The City's responses are provided below according to the order of the items listed in the proposed Consent Order:

Failure to Report Gabrielle "Overflows"

5.a) A review of the information on file with both the Department and Respondent indicated that during Tropical Storm Gabrielle on September 14, 2001, Respondent failed to report overflows from the collection/transmission system of the Facility and overflows at the Facility. Specifically, City documents indicated that at least 10,000 gallons of raw sewage were pumped from the collection system at Lift Station No. 8 to a storm water conveyance at Groveland and US Highway 41, which discharged to an unnamed tributary of the intracoastal waterway. The Department was not notified of this event.

The Tropical Storm Gabrielle Event

As we understand it, the Department's contentions are based upon notes of City investigators taken during interviews of City Pollution Control Department staff. The interviews were conducted because certain City staff had alleged that interpersonal hostilities had arisen between City employees, creating a hostile work environment. These alleged hostilities obviously colored the reports from the interviewed City employees because the reports are just plain wrong and the underlying "overflow" event did not occur. Our investigation has found documents, photographs and first hand testimony of the individuals involved demonstrating a very different event did occur. The event was as follows:

- A force main leak was reported in the early afternoon on September 14, 2002, based upon observed fluids percolating up over the force main;
- Shane Saputo visited the site, confirmed the leak, and shut down Lift Station 8, the only lift station pumping into that force main, within fifteen minutes of the original leak detection;
- Sandbags were arrayed around the downstream stormwater catch basin that drains the leak area to prevent any fluids from entering the storm sewer system;
- A 6,500 gallon tanker truck and a six inch diesel driven trash pump were employed to evacuate the wastewater from Lift Station 8, including flows draining back into the station from the ruptured line, and transport it to a master lift station about a mile and a half away;
- Over the course of the rest of the day, numerous truckloads of wastewater were trucked to the master lift station;
- The City's backhoe was occupied responding to a water main break on the island, so to expedite the response in light of the potential for endangerment to health or the environment, particularly in light of the imminent Tropical Storm Gabrielle, Shane Saputo borrowed a backhoe from Wharton-Smith, the City's contractor for the ongoing Eastside WWTF upgrades, and drove it to the site of the leak;
- Backhoe excavation was initiated and the tropical storm arrived with heavy rain, wind and lightning;
- Soils from the excavation were piled up around the excavation area and around the storm sewer catch basin reducing stormwater transported sediment from the excavation site reaching the stormwater system (but increasing stormwater flow into the excavation);
- A vac truck was called and stationed near the excavation site and the Lift Station 8 pump was briefly operated manually to pinpoint the leak;
- A vac truck load of wastewater and stormwater was transported to the Island Beach Plant and placed in the sludge drying bed;
- During the backhoe excavation operation, a four inch clay gravity sewer service lateral, serving an auto repair shop and a pack and ship fruit outlet, was also affected and the fluids in it were vacuumed out;
- After exposing the pipes as well as he could with the backhoe, Mr. Saputo and others manually excavated the rupture site;

- Once the rupture site was fully exposed, several attempts to repair it failed because of the deteriorated state of the pipe above and below the leak site, the excavation site kept filling with stormwater causing the excavation area to cave in, and no dry bedding for pipe repair was available;
- Repair of the four inch gravity line was also difficult for the same reasons;
- During the repairs the vac truck was used to evacuate stormwater and mud from the excavation site, but two trips to the Island Beach Plant took approximately forty-five minutes each and the weather was getting worse and making the excavation site fill with stormwater and mud, including runoff from the street, faster than it could be evacuated;
- After two trips to the Island Beach Plant, with the hole filling faster than it could be evacuated, the determination was made that no wastewater remained in the excavation site and anything vacuumed out by the vac truck was stormwater, mud, sand and rocks, so the decision was made to back the vac truck up and dump the stormwater that was in the tank into the gutter to allow sediment to settle, with liquid flowing into the storm sewer system;
- Because the vac truck tank was partially filled with solids (mud and rocks), when the fluids in the truck were twice dumped in the road where the fluids then flowed into the stormwater sewer, the two loads dumped probably totaled much less than 3,000 gallons;
- The repairs were completed at approximately 5:00 a.m. Saturday morning September 15, 2002;
- The road was closed and barricaded and the debris from the excavation was hauled to the Sarasota County Landfill.

While the foregoing response actions may in hindsight appear to be imperfect to the Department, these were emergency conditions and we would submit the City representatives' actions represented not only the best option available, but that such actions went beyond the call of duty considering the rain, lightning and wind with which City staff struggled. Ultimately, the fluid evacuated to the storm sewer system was stormwater and suspended sediments and the wastewater was contained and disposed properly. If any wastewater was discharged to the storm sewers, it would have been trace amounts incompletely evacuated from the excavation site or from the prior use of the vac truck for wastewater removal.

Reporting of the Gabrielle Event

The City did not understand this event to require a formal report for several reasons, as explained below:

The City operates the Eastside WWTF and its appurtenant works, including the collection system and the reuse distribution and disposal systems pursuant to Domestic Wastewater Facility Permit Number FL0041441-02 (the "Permit"). General Condition 20 of the Permit states in its introductory paragraph that:

The permittee shall report to the Department and to the Sarasota County Pollution Control Division any noncompliance which may endanger health or the environment.

General Condition 20 then describes the reporting requirements and provides in subsection a, in relevant part, that:

The following shall be included in the information which must be reported within 24 hours under this condition:

4. Any unauthorized discharge to surface or ground waters.

Pursuant to General Condition 20, the City has reported to the Department numerous instances of line breaks and other minor discharge events. The Department's response has often been essentially thanks, but you really did not have to report the event. City Pollution Control staff at seminars have sought clarification of which events need to be reported and the Department representative speakers have not been able to clarify when a report is required. The general conclusion and understanding reached by City operators generally has been to use their best judgment as to whether the event, as General Condition 20 states, "may endanger health or the environment."

In November 2000, the Department, by minor permit revision, unilaterally imposed a new permit condition requiring the City to:

Report all unauthorized releases or spills of untreated or treated wastewater in excess of 1,000 gallons per incident, or where public health or the environment may be endangered to the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, . . .

Some of the City's personnel interpreted this new Permit condition to establish a threshold for reporting spills, with spills less than 1,000 gallons being non-reportable. The foregoing discussion of the City's understanding is provided as background to the City's response.

September 14, 2001 was a Friday and Tropical Storm Gabrielle made landfall in Southwest Florida during the afternoon that day. Because of the storm, the Department's offices were closed when the event was still developing. Even though the City did not determine the notice requirements to be triggered by the event for the reasons described above, the City reported on Monday, September 17, 2001 to Joe Squittieri that a line break had occurred. The City later followed up in writing to the Department when a memo from Pat Wilson to John Lane summarizing the events was included as an attachment to a report submitted in October 2002, which included toxicity analyses for the September discharge event. It is in the context of the foregoing explanation of the event, description of the City's experience with reporting minor spill events, and the City's above-described understanding of the reporting requirements that the City's actions should be judged.

For the foregoing reasons, the City's actions did not violate Florida Administrative Code Rule 62-4.130. The City was not temporarily unable to comply with any permit condition. However, even if the Department considers that reporting was required, the event was reported

as described above. The City's actions did not violate Florida Administrative Code Rule 62-620.610(20) because Rule 62-620.610 merely provides general conditions to be included in all permits, stating: "All permits, except General and Generic Permits, issued by the Department under this chapter shall include. . . ," among other things, a condition described under subsection 20 that is in fact included as general Condition 20 in the City's Permit. Only the Department could violate that Rule, but it did not because it included General Condition 20 in the City's Permit.

The City acknowledges that the discharge of stormwater from the City's vac truck potentially could have violated Florida Administrative Code Rule 62-302.500(l)(a) in that the stormwater flowing from the City's storm sewer may have carried enough suspended solids to have contributed to turbidity if settling in the gutter was insufficient. However, in the context of Tropical Storm Gabrielle, all of the area waters were likely substantially affected by turbidity at the time of any such discharge. Had City staff not acted as quickly and decisively, wastewater would have continued to percolate up and flow into the storm sewer system all day Friday September Fourteenth and for at least a portion of Saturday September Fifteenth. Numerous communities affected by Tropical Storm Gabrielle no doubt experienced overflows, spills and discharges involving quantities far in excess of those involved in the above-described incident. Consequently, any turbidity associated with the City's actions was by reason of force majeure and was inconsequential in the broader context of the tropical storm. Notwithstanding, the event was reported.

The Other Event and Reporting

The Department's allegation also includes the allegation of "overflows at the Facility." The warning letter stated that "20,000 gallons of mixed liquor or sludge were pumped from the facility tanks into the upset pond on-site." That is not what happened. The only event of any similarity occurred as follows. During the construction project associated with the City's upgrade of the Eastside WWTF, an aeration basin was emptied to allow construction of an expansion. After the aeration basin was drained of liquid, sand and grit in the bottom of the tank were removed and placed at the interior edge of the lined reject pond berm to allow some drying of the material so that it could be safely and efficiently transported and disposed. While this material dried, any water draining from it, and any runoff as a result of rain on the material, flowed into the reject pond. The only way out of the reject pond is by pumping back into the WWTF influent. After a period of drying, the sand and grit was removed from the pond and trucked to the Sarasota County Landfill. This was not an overflow event. All materials were at all times controlled and at no time was there a discharge to the environment. This was a onetime unique event associated with the plant upgrade and no protocol for the event existed. No report was indicated as the Department was aware of the proposed and approved construction activities, the material removed was sand and grit, and no release to the environment occurred.

In hindsight perhaps the procedure should have been cleared in advance with the Department.

The Penalty Computation

The Department's Penalty Computation Worksheet indicates the Department assessed the City for failure to report these events as involving major potential for harm and major extent of deviation. The City submits these assessments are extremely harsh. As far as potential for harm, neither event involved anything more than a miniscule potential for harm. In the first event, the City prevented more harm than it caused when it evacuated the vac truck of stormwater onto the ground then into the storm sewer. In the second event the City carefully placed sand and grit on the edge of a lined reject pond for a very short time to dry. These circumstances do not involve any real potential for harm. These events did not involve spills. These events were reported. The potential for harm was miniscule in the first event and non-existent in the second.

On the issue of extent of deviation, the deviations were minor or non-existent. The first event involved emergency response actions. As described above, the event was reported though the need to report was unclear. The Department may view the timing of the reporting not to have been in strict compliance with overflow or discharge reporting requirements, but under the circumstances, any reporting deviation was without consequence. The second event was not perceived to be a reportable event where there was no possibility of overflow or discharge to ground water or waters of the State. The extent of deviation was miniscule in the first event and non-existent in the second.

Conclusion

The City should not be penalized for these events.

The Gabrielle Discharge

5.b) On September 14, 2001, at least 10,000 gallons of raw sewage were pumped from the collection system at Lift Station No. 8 to a stormwater conveyance at Groveland and US Highway 41, which discharged to an unnamed tributary of the Intracoastal Waterway. This was in contravention on Respondent's Contingency Plan, which stipulates that collection/transmission system overflows be trucked to the Venice Island Beach WWTF.

This event was described at length above.

The Penalty Computation

The Department's Penalty Computation Worksheet indicates the Department assessed the City for this event as involving major potential for harm and major extent of deviation. Again, the City submits this assessment is extremely harsh under the circumstances. As far as potential for harm, the event involved only a miniscule potential for harm, if any. Only stormwater with possible trace amounts of wastewater reached any storm sewer. The potential for harm was miniscule.

On the issue of extent of deviation, the deviation was minor. Excavations are dewatered to storm sewers every day. This was an emergency response action. The extent of deviation was miniscule.

Conclusion

Any penalty for this event should be minimal.

Curry Creek Discharges

5.c) Advanced waste-treated effluent was discharged to Curry Creek September 17 to 30, 2001, in contravention of Specific Condition No. LA.1. of the Permit and Federal guidelines. Respondent contends that the discharges to Curry Creek were necessary due to excessive rainwater surcharging the system during Tropical Storm Gabrielle. However, the discharge to Curry Creek was initiated three days after the storm and continued for the next two weeks.

5.d) During the processing and issuance of Warning Letter No. WL020011DW58SWD, advanced waste-treated effluent was again discharged into Curry Creek, from September 2 to 23, 2002. This continuous discharge was also in contravention of Specific Condition No. IA. 1 of the Permit and Federal guidelines.

These two events were treated collectively in the Penalty Computation Worksheet and the City will respond to them in like fashion.

The allegations in 5c relating to the timing of the discharge suggests the Department suspects the discharge was not necessary because the timing of the discharge was not exactly coincidental with the onset of the rain. This position fails to consider the beneficial effect of the storage pond developed by the City to handle wet weather events. The City tries very hard to avoid a discharge. It is absolutely not in the City's interest to discharge to surface waters. Reclaimed water is a valuable commodity when there is reuse demand. Furthermore, the monitoring required during a discharge event is very expensive and the chemicals used to comply with the AWT standards applicable to such discharges also represent additional cost. If the City could avoid discharging it would have.

The discharge was initiated two days after the onset of Tropical Storm Gabrielle because the City was able to divert flows to the pond during first part of the storm. However, the rainfall event from Gabrielle resulted in over 13.7 inches of rain over a seven day period, including 12.1 inches of rain over a five day period, which caused super saturated conditions and did not promote the disposal of reclaimed water for reuse. This rainfall event by far exceeded the design capacity of the pond. The Federal Guidelines indicate that flows that exceed the 10 year recurrence interval may be calculated using the equation $R=7.8105T^{2.526}$, where R is the Rainfall in inches and T in the time in days. This event exceeded the ten year recurrence interval during

the seven day period ending on September 15, 2001. The discharge was necessary to avoid the overflowing of the ponds, which are designed to meet the ten year recurrence interval, and should be considered as an emergency discharge.

The discharge event commenced two days after the storm event did, which gave the City time to change the plant's mode of operation to meet advanced wastewater treatment standards. The discharge occurred for fourteen days which was necessary to dispose of high influent flows and recoup storage in the pond. Due to saturated conditions, customer use of reclaimed water was minimal during this interval.

The discharge event addressed in 5d, from September 2 to 23, 2002, was the result of the storage pond becoming full due to decreased demands of reclaimed water due to above average rainfall in the month of August. The rainfall noted in August 2002 was 19.6 inches which exceeded the 10 year wet year rainfall of 10.26 inches which was utilized in the water balance calculations performed by Boyle Engineering for the 1996 Reuse Preliminary Design Report, which is the basis for the existing permit. The model also shows that at build out, a surface water discharge of approximately 64 million gallons would be required in August which is usually the wettest month of the year.

While these discharges are undeniable, the City has come to understand that the Department believes the City has not endeavored to comply with the Permit. Enclosed please find the City's "Report on Curry Creek Discharge Permitting, Compliance, and Modification" (the "Report") which the City submits to respond to that belief. The Report documents numerous, largely successful efforts by the City over many years to maintain its discharges within the confines of the permit. As the Department knows, an application for modification of the Permit is being processed currently which is expected to legalize the kind of events the Department seeks penalties for in this enforcement matter.

The Penalty Computation

The Department's Penalty Computation Worksheet indicates the Department assessed the City for this event as involving minor potential for harm. The City submits that a discharge during such wet weather has no potential for harm. Available dilution flows in the receiving stream totally eliminate any potential effect from this highly treated wastewater. No evidence exists suggesting a discharge of this nature has any adverse effect at all.

The Worksheet also indicates the extent of deviation is major. The attached Report shows that overall the City has discharged less than half of the number of days estimated in the City's original water balance calculations prepared by CDM in 1988. This shows that the City has been committed to reducing the pollutant loading of the receiving waters and has for the most part succeeded. The difficulty in recent years has been encountered because the actual rainfall distribution has not been consistent with the previously experienced rainfall distribution, exacerbating the effect of seasonal discharge limitations. Consequently, the City has not needed to discharge when it was allowed to, but has needed to discharge when it was not allowed. The

City submits that the extent of deviation has not been major and the penalty calculation should be adjusted downward.

Conclusion

The penalty for these events should be reduced.

Pond Discharges

5.e) A review of the Discharge Monitoring Reports, submitted to the Department, indicated that secondarily treated effluent was discharged to surface waters from outfalls D002 through D011 routinely and were not necessarily in response to rainfall events. This indicated that the discharges were effluent and not stormwater. Discharging effluent through stormwater structures is in contravention to Specific Condition No. LA.2. of the permit, Section 403.086, F.S. and Chapter 62-302, FAC.

The City does not understand this claim. First, the City's effluent delivered to its customers' on-site storage ponds is advanced secondary effluent. Second, the three storage ponds associated with Outfall D006 and the pond associated with Outfall D007 have never even received any reclaimed water from the City, while D008 only received water from the end of 1992 to mid - 1993. With respect to the other on-site storage ponds, the design of the City's fill stations at these ponds includes an automatic shutoff valve that closes, preventing the addition of reclaimed water when the pond water level rises to or above its control elevation. The control elevations were established to provide four inches of freeboard below the lowest overflow weir elevation. This design was approved by the Department and permitted in the existing Permit. The City's understanding is that the Department's permitting of these ponds was generally to apply the concepts developed in the Director of the Division of Water Facilities' April 26, 1996 Program Guidance Memo DOM-96-01. Therefore, by design any discharge from these ponds is considered to be stormwater or groundwater from base flow. In keeping with that Program Guidance Memo, the permit includes no limitation on the frequency or the quantity of discharge from these ponds.

During periods of discharge from the ponds, the City is not sending reclaimed water to the ponds. There are times when the ponds will continue to discharge after a rainfall event for an extended period of time due to high ground water levels and upstream contributions. The flow into each pond is metered for billing purposes. Using the billing meter readings, the City has put together a table of all the discharge points which shows the metered amount of reclaimed water received in the ponds for each month, the rainfall and the estimated number of days discharge occurred from the ponds. The Table is enclosed. This table shows that during months that there was a continuous discharge of thirty days from the ponds, there was no reclaimed water received.

The Penalty Computation

The Department's Penalty Computation Worksheet indicates the Department assessed the City on the basis that these discharge events represent major potential for harm and major extent of deviation. The City asserts there exists no deviation as the ponds are functioning as permitted. The Permit requires the City to report these stormwater discharges. Hence the reporting occurred. However, the City understands these discharges to have been deemed to be stormwater pursuant to Department policies. As such the potential for harm is also non-existent.

Conclusion

The City should not be penalized for these events.

Certified Operator Coverage

5.f) Certified operator attendance requirement were not met. From April 25, 2000, the issuance date of Permit No. FL0041441, a Florida-certified operator, Class C or better was required to be on-site at the Facility seven days per week for 24 hours per day. The lead operator was required to be a Class A certified operator. From the date of Permit issuance until November 1, 2002, the lead operator had possessed only a Class B certification. Therefore, the minimum requirement for a Class A lead operator was not met.

The requirements for a lead operator were misunderstood by the City since the flows, and the actual plant capacity, were well below 3 MGD. The City believed that the lead operator requirements did not come into effect until the City certified construction completion of the treatment plant at 6 MGD. It appears that the Department also interpreted the requirement this way, since several compliance inspections were conducted, and numerous monthly DMRs were submitted, all without the Department detecting or notifying the City that the Department considered the facility to require a Class A operator. The plant was re-rated from 2.1 MGD to 3.0 MGD in the last renewal although there were no changes to the treatment plant. Before the rerating, the City had two operators training for their Class A operator licensing test. The City has since hired a Bill Quigley, a Class A operator, and Jim Petrosky has been elevated to Class A.

The Penalty Computation

The Department's Penalty Computation Worksheet indicates the Department assessed the City on the basis of major potential for harm and moderate deviation. The City disputes this assessment. Though the plant's permitted capacity may have required the higher class, since the facility was still operating below the threshold for requiring a Class A operator, and the actual constructed plant capacity was less than the threshold, the potential for harm was minor. The Department's inspections that did not result in notification to the City should be considered in mitigation of the assessed penalty. Had the Department actually identified the issue as it is

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requiring the City to have done, the City would have surely corrected the problem sooner, thereby minimizing the violation period. Further, the Department's assumption of a \$500 per month economic benefit of noncompliance is incorrect. A Chief Plant Operator is paid the same regardless of operational license level due to the non-bargaining salary status of the position. Consequently, there was no economic benefit to the City.

Conclusion

Any penalty for this event should be minimal.


Overall Summary

The City has investigated the events alleged and has responded very candidly about these events. The City is proud of its utility and strives to meet all permit conditions, abide by all laws and reuse as much of its reclaimed water as it possibly can. However, the City of Venice has the challenges of an older coastal Florida community, including aging infrastructure, a growing population and a responsibility to work on a regional basis to keep up with the demands of the Clean Water Act. The violations alleged in the warning letter and proposed Consent Order represent the City's diligent, but imperfect response to those challenges. The penalty demands should be substantially adjusted in light of the foregoing explanations and clarifications.

The City would prefer to submit additional minor clerical and housekeeping suggestions after the Department's further considerations. At this time, the City would, however, request that the Consent Order include language authorizing the City to submit for Department approval an in-kind or pollution prevention project in lieu of fines or penalties.

We look forward to meeting with you and discussing these matters. Meanwhile, if you have any questions or comments, please call.

Sincerely,

THOMAS & ASSOCIATES. P.A.

John R. Thomas

CC George Hunt
John Lane
Pat Wilson
David Farabee, P.E.
Julie Karleskint, P.E.

**Report on Curry Creek Discharge Permitting,
Compliance, and Modification**

City of Venice Eastside WWTP

September 24, 2003

Prepared by:

David L. Farabee, PE

4263 Lancaster Drive

Sarasota, Florida 34241

Professional Engineer No. 22308

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A. Introduction

This retrospective report has been prepared at the request of environmental counsel for the City of Venice for the purpose of describing the City's permit to discharge treated effluent into Curry Creek, its efforts to comply with that permit, and its efforts to secure permitting for additional discharges.

Domestic Wastewater Permit No. FL0041441-02, issued to the City by the Florida Department of Environmental Protection (FDEP), allows discharge to Curry Creek subject to certain limitations. In general, the effluent quality must meet advanced waste treatment (AWT) quality limitations, as required by FDEP for any discharges to coastal surface waters in the area. These requirements are described in FS 403.086(1)(c) and 403.086(4). In addition to the foregoing quality limitations, the permit also limits the timing and quantity of the discharge. The discharge is limited to 2.1 million gallons per day (mgd) during December, January, and February, and 3.45 million gallons during July, and 4.35 million gallons during August. The July and August limitations are based on the previous permit's limit of 2.3 and 2.9 days, respectively. No discharge is allowed during other months.

The Federal Clean Water Act, Title 33, Chapter 26, Section 1313, requires states to adopt water quality standards for water bodies. Section 1312 generally requires that discharge permits include conditions establishing effluent limitations determined to be necessary to meet those water quality standards applicable to the receiving water. However, the records of FDEP's actions in issuing the existing permit indicate that the existing permit limits were not established in this manner.

The City's Curry Creek outfall facilities are located on the north side of the creek just west of Auburn Road. Curry Creek is a man-made channel at this location. An outfall structure is connected to a 16-inch pipe from the reclaimed water distribution system through a manual valve, a flow meter, and a hydraulic control valve. The water is discharged at the top of a stair-step concrete discharge structure set into the side of the canal bank.

B. The Basis of the Permit

In the late 1980s, the City of Venice, in order to comply with FDEP regulations governing the operation of its Island Beach Wastewater Treatment Plant, decided to construct a new treatment plant, the Eastside Wastewater Treatment Plant (WWTP). Although the vast majority of treated effluent was intended to be reused as irrigation water, the City recognized that such a system would have an occasional need to discharge when wet weather conditions reduce irrigation demands. For that reason, the City identified Curry Creek as a potential discharge location and applied for a permit from FDEP that would allow such discharges.

Through its consultant, Camp Dresser & McKee (CDM), the City supplied FDEP with data on the anticipated need for wet weather discharges, stream flow rates, effluent quality, stream water quality, and calculations that showed such a discharge

would not result in a violation of water quality standards set by FDEP for Curry Creek. Those data culminated in a letter dated June 24, 1988 from Thomas Walker of CDM to Al Bishop of FDEP. That letter included tabulations of the City's expected need for discharge and the effect of that discharge on the water quality in Curry Creek. An appended Table 1 shows that a discharge was expected to average 63 days per year, including 2.3 days during July and 2.9 days during August.

FDEP's primary concern in evaluating these data was the effect of the discharge on the dissolved oxygen (DO) concentration in the stream. This concern was greatest during times of low stream flow, which generally occur during winter and spring, and high water temperatures, which generally occur during the summer. CDM's June 24, 1988 letter included a statement that even during August, the discharge "will actually serve to raise the overall stream DO".

On August 31, 1988, the United States Environmental Protection Agency (EPA) issued a "Finding of No Significant Impact" for the proposed Eastside WWTP project. This finding documents EPA's conclusion that the project, including the proposed unrestricted discharge to Curry Creek, "will have a beneficial impact on the environment by improving the surface water quality in the City of Venice planning area." On November 18, 1988, FDEP issued Permit No. DC58-144830, which allowed discharges to Curry Creek at any time. The only limitations on the timing or quantity of this discharge was the permitted capacity of the WWTP, which at the time was 2.1 mgd annual average flow and 3.0 mgd maximum monthly flow.

After issuance of this permit and before the plant construction commenced, a major reuse site (the 800-acre Henry Ranch) was removed from the project at its owner's request. Although the City secured a replacement reuse site (Knight Trail Park), this change required a permit revision. At the same time, the requirement for AWT treatment was modified by the Florida Legislature. In addition to the previously existing requirement that AWT treatment be provided for discharges to Southwest Florida coastal waters (F.S. 403.086(1)(c)), the new statute included a provision that, for "backup discharges of reclaimed water", AWT discharges "shall be presumed to be allowable and shall be permitted ... where such discharge results in minimal negative impact." (F. S. 403.086(5)(a)) Although this new statutory provision provided a lower standard of justification than the previously required water quality modeling, FDEP, during the course of considering the permit modification, used the change as justification to re-evaluate the previously approved discharge to Curry Creek. When the permit modification was eventually issued, it included new limitations on when discharges were allowed.

On September 15, 1989, EPA issued NPDES Permit No. FL0041441, which allowed discharges of AWT effluent to Curry Creek at any time in any amount.

When the Henry Ranch site was replaced with the Knight Trail Park site, the City advised FDEP (in a September 6, 1989 letter from John Lane to Al Bishop) that the anticipated discharge was estimated to average 89 days per year rather than the previously-estimated 63. These 89 days per year included 15.3 days in July and 15.9

days in August. CDM provided water quality modeling in an attempt to show that these discharges would not result in violations of water quality standards. FDEP did not accept this modeling for summer months, because they had concerns about the validity of CDM's water quality model and about the lack of ambient water quality data. In internal FDEP memoranda dated September 18, 1989, October 17, 1989, November 13, 1989, and December 29, 1989, Al Bishop explained that he was not convinced that the model calculations were accurate, and was not convinced that the resulting effect on dissolved oxygen levels would be minimal. He concluded that during the winter months, when Curry Creek background flows are much less than the discharged amount, this uncertainty was relatively unimportant, but during the summer months, when background flows are greater, the lack of reliable data about the background water quality made dissolved oxygen predictions unacceptable. The perverse result is that summer discharge amounts were restricted because there is more dilution water available.

The record shows that the existing permit limitations were established differently for different months. For December, January, and February, the permit flow limits were set at the then-anticipated WWTP capacity of 2.1 mgd. For July and August, the permit flow limits were set at the amount of flow expected to be discharged in an average year based on water balance calculations for a reuse system, including Henry Ranch, that had already been eliminated from consideration at the time the permit limits were established. For the other seven months, discharge was prohibited for no discernible reason, despite water balance calculations that showed some discharges would be needed. None of these flow limitations were established because of any indication that the discharge of more effluent would have any adverse effect on receiving water quality.

Because of the need to construct the new Eastside WWTP to eliminate discharges from the Island Beach WWTP's sprayfield underdrains, because of the prospective loss of FDEP State Revolving Fund loan funding, and because of the prospective loss of a favorable (but aging) WWTP construction bid, the City accepted the permit with the Curry Creek flow limitations, and continued its efforts to expand the reuse system. Since the discharge limits in the permit were not established pursuant to the expected process with predictable results, and since the previous modification of this permit had resulted in a reduction in the permitted discharge, the City was left with no reason to believe the flow limits could be increased and with a justifiable fear that any further modification application could result in further reductions.

This permit history is important now because it demonstrates the following facts:

- Ø The City suspected that the discharge permit limits were inadequate, and in order to tolerate this limitation, the City would need to expand its reuse system capacity beyond what was initially anticipated.
- Ø The City documented to FDEP its anticipated discharge need before FDEP modified the permit and reduced the allowed discharge flow to amounts less than that need.

- Ø Since the permitted flow and time limitations were not based on an assessment of the stream's assimilative capacity, there is no reason to believe that a violation of these limits will result in any environmental harm.

C. Records of Discharges

The City's Pollution Control Division staff has reviewed the Discharge Monitoring Reports to compile a list of occasions when flow was discharged to Curry Creek since startup of the Eastside WWTP on January 27, 1991. This list shows 15 occasions during the 12-year period (through 2002) when flow was discharged. During five of those discharge events, the duration of the discharge was kept within the permit limitations; the other events were either at times when the permit did not allow discharges, or the discharges exceeded the time limitations in the permit. Table 1 summarizes these discharge events. Discharges occurred on 296 days, an average of 25 days per year, which is less than half the number of days estimated in the original water balance calculations prepared by CDM in 1988. This better-than-expected performance is indicative of the City's success in staying within the permit limitations. Nevertheless, about half the days when discharges occurred were outside the time limits allowed by the permit.

Because the vast majority of Venice's reclaimed water is re-used for irrigation, the need to discharge is heavily influenced by rainfall. The amount of rainfall varies considerably from year to year. Although the normal wet season is during the summer months, there is considerable variation in the seasonal distribution of rainfall. Table 2 shows the rainfall recorded at the Eastside WWTP each month from 1990 to 2002. This table also shows the number of days each month when flow was discharged to Curry Creek. As this table shows, these discharge events are generally associated with times of high rainfall. In fact, of the 296 days when discharges occurred during this 13-year period, half the days were during the four months in the winter of 1998 and three months in the fall of 1999, when "El Nino" weather conditions disrupted the normal seasonal rainfall patterns. As another example, after relatively low rainfall during June and July of 2002 (when a permitted discharge opportunity was not availed), rainfall during August was an extraordinarily high 19.6 inches, making that month the third greatest monthly rainfall of the 13-year period. As a result, reduced irrigation demands created the need for a non-permitted discharge during September of that year.

As Table 2 shows, the frequency of discharge events has increased significantly since 1997. Table 3 shows this increase in discharges. From 1991 through 1997, discharges averaged only 9.7 days per year. From 1998 through 2002, discharges averaged 45.4 days per year. The increase is apparently the result of higher rainfall rates during (and preceding) months when discharge is not allowed, increasing flows to the WWTP, and increasing rates of infiltration in City and County sewers, resulting in higher wastewater flow rates during the same rainy weather that inhibits irrigation demands. These discharge events, even at the recent higher frequencies, occur less frequently than predicted by the 1988 CDM water balance; nevertheless, they do result in permit violations.

Table 1
Venice Eastside WWTP
Discharges To Curry Creek

Year	Days Permitted	Days Discharged		
		Total	Within Permit	Unpermitted
1991	96	0	0	0
1992	97	11	3	8
1993	96	36	36	0
1994	96	3	3	0
1995	96	0	0	0
1996	97	0	0	0
1997	96	18	18	0
1998	96	94	58	36
1999	96	54	3	51
2000	97	14	14	0
2001	96	20	6	14
2002	96	46	24	22
Total	1155	296	165	131
Avg. Days of days	96.3	24.7	13.8	10.9
	26.4%	6.8%	3.8%	3.0%

Table 2
Venice Eastside WWTP
Comparison of Rainfall and Discharge Events

Venice WWTP Rainfall, Inches:		Discharge to Curry Creek, Days per Month:											
Month	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
January	0.4	4.3	0.8	10	5.5	2.4	4.9	2	5.2	5.3	1.8	0.4	3.7
February	5	3.7	4.2	3.4	0.7	2.3	1	1.5	7.3	0.8	0.9	0	4.1
March	2.2	3.3	2.5	7.2	2.7	2.2	5	1.4	10.9	2.2	1.4	7.3	0.7
April	1.2	4.9	1.7	3.2	6.7	2.7	1.7	8.7	0.3	0.2	2.3	0.2	1.9
May	3.9	6.2	1.8	3.9	0	0	7.6	3.1	0.7	4.4	1.4	0.7	4.5
June	2.3	7.6	20.4	5.2	13	15	3.6	4.6	1.3	10.8	7.3	10.8	8.2
July	8.1	10.7	3.6	6.7	15.2	21.4	4.5	7.4	3.7	6.1	8.4	11.7	8.4
August	2.7	7.3	8.4	8.2	16	11	5.2	7.8	6.8	12.2	9.1	6.2	19.6
September	4	5.6	9.4	3.5	12.4	14.3	3.5	11.6	8.8	8.1	9.1	17.3	4.8
October	4.3	1.7	4.2	7.5	5.4	9.9	4.2	3.3	1	4.7	0.4	0.7	2.7
November	0.5	0.4	0.7	0.8	1.2	0.6	0.3	8.7	3.9	0.7	1.8	0.2	5.4
December	0.7	0.3	0.7	1.2	2.4	1.5	1.9	11.1	1.4	2.5	1.2	0.7	7.1
Totals	35.3	56	58.4	60.8	81.2	83.3	43.4	71.2	51.3	58	45.1	56.2	71.1
Discharge to Curry Creek, Days per Month:													
Month	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
January				9					31				
February				27					27		14		
March					3				23				
April									13				
May													
June			5										
July			6										
August										11		3	
September										17		14	
October										26			22
November													
December								18					
Totals	0	0	11	36	3	0	0	18	94	54	14	20	24