

EXHIBIT ~~1~~ //
ADMINISTRATIVE RECORD # 121

NPDES PERMIT NO. TX0054186

RESPONSE TO COMMENTS

RECEIVED ON THE SUBJECT DRAFT NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM (NPDES) PERMIT IN ACCORDANCE WITH REGULATIONS
LISTED AT 40 CFR 124.17

APPLICANT: San Jacinto River Authority
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PERMIT ACTION: Final permit modification decision and response to comments received on
the draft reissued NPDES permit publicly noticed on January 29, 2009.

DATE PREPARED: April 16, 2009

Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40,
Code of Federal Regulations, revised as of April 10, 2009.

SUBSTANTIAL CHANGES FROM DRAFT PERMIT MODIFICATION

There are changes from the draft NPDES permit modification publicly noticed on January 29, 2009.

1. The phrase "or below" was removed from sections at Modified Permit: pages 3 and 4 of Part II (Section D.2), page 4 of Part II (Section D.2.a.1.ii), page 11 of Part II (Section D.6.a), and page 12 of Part II (Section E.1.c).
2. A footnote has been added to Outfall 002 that states "When discharging" for all monitoring and reporting requirements.
3. Monitoring frequency for Outfall 002 is changed to daily when discharging.
4. Sample type for Outfall 002 is grab for all parameters.
5. Outfall 002 may use samples obtained from Outfall 001 for permit compliance purposes when Outfall 002 is discharging.

STATE CERTIFICATION

Letter from L'Oreal W. Stepney, Texas Commission on Environmental Quality (TCEQ) to Miguel I. Flores, Environmental Protection Agency (EPA) dated March 9, 2009, waiving state certification.

CONDITIONS OF CERTIFICATION

There are no conditions of state certification.

COMMENTS RECEIVED ON DRAFT PERMIT

Letter from Lauren Kalisek, attorney representing San Jacinto River Authority (SJRA) to Diane Smith (EPA) dated February 27, 2009.

INTRODUCTION (EPA)

The only comments received on the draft permit modification were those made by the permittee. The comments on the Modified Permit are categorized as follows: (1) copper monitoring (2) WET limits and WET testing requirements; (3) monitoring for Outfall 002; and (4) correction of information in the Fact Sheet, and typographical errors. The organization generally conforms to the order of the SJRA comment letter. EPA has summarized comments due to their length and complexity however we have included headings for SJRA's comments for ease of reference to the full comment letter that is attached. EPA responses are interjected within the text of SJRA's comments and are presented with the heading "EPA Response."

DEFINITIONS AND ABBREVIATIONS

2008 STE – San Jacinto River Authority Sublethal Toxicity Evaluation, The Woodlands Wastewater Treatment Plant No.1 submitted to the United States Environmental Protection Agency, November 2008. (See Appendix.)

Application – SJRA's NPDES Permit Application filed with EPA June 1, 2006, and related documents.

C. dubia – *Ceriodaphnia dubia*.

CFR – Code of Federal Regulations.

Chronic Freshwater Guidance – U.S. Environmental Protection Agency. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Fourth Edition; October 2002.

(Available at <http://www.epa.gov/waterscience/wet/disk3/ctf.pdf>).

DMR – Discharge monitoring report.

EPA – Environmental Protection Agency.

Fathead Minnow – *Pimephales promelas*.

IC25 – 25-percent Inhibition Concentration. The toxicant concentration that would cause a 25 percent reduction in mean young per female for a *C. dubia* test population or a 25 percent reduction in mean growth for a Fathead Minnow test population.

IP – Procedures to Implement the Texas Surface Water Quality Standards. Document No. RG-194 (Revised). January 2003. (See Appendix.)

Interlaboratory Variability Study – U.S. Environmental Protection Agency, Office of Water. Final Report: Interlaboratory Variability Study of EPA Short-term Chronic and Acute Whole Effluent Toxicity Test Methods, Vol. 1. Document No. EPA 821-B-01-004. U.S. Environmental Protection Agency, Office of Water, Washington, D.C. (Available at <http://www.epa.gov/waterscience/WET/finalwetv1.pdf>).

MAL – Minimum Analytical Level.

mg/L – Milligrams per liter.

ml – Milliliter.

Modified Permit – NPDES Permit No. TX0054186 for WWTP No. 1 with proposed permit modifications issued by EPA on January 30, 2009.

NOEC – No Observed Effects Concentration.

NPDES – National Pollutant Discharge Elimination System.

PFD – The Administrative Law Judge’s Proposal for Decision in TCEQ Docket No. 2003-1213-MWD; SOAH Docket No. 582-04-1194. (See Appendix.)

SJRA – The San Jacinto River Authority.

SOAH – The State Office of Administrative Hearings, Texas.

Standard Methods for the Examination of Water and Wastewater – American Public Health Association, American Water Works Association, and Water Environment Federation. Standard Methods for the Examination of Water and Wastewater. 19th Edition. 1995.

State Permit – The permit issued by the TCEQ on October 16, 2008 for WWTP No. 1. (See Appendix.)

TAC – Texas Administrative Code.

TCEQ – Texas Commission on Environmental Quality.

TCEQ Order – TCEQ’s “Order Regarding Application by San Jacinto River Authority for Renewal of TPDES Permit No. 11401-001 in Montgomery County; TCEQ Docket No. 2003-1213-MWD; SOAH Docket No. 582-04-1194.” (See Appendix.)

TCEQ Record – The record associated with TCEQ Docket No. 2003-1213-MWD; SOAH Docket No. 582-04-1194, including the hearing transcripts, SJRA’s Exhibits, the Executive Director’s Exhibits, the PFD, the TCEQ Order and the State Permit. (See Appendix.)

TIE – Toxicity Identification Evaluation.

TNRCC – Texas Natural Resource Conservation Commission (Predecessor to TCEQ)

TPDES – Texas Pollutant Discharge Elimination System.

TRE – Toxicity Reduction Evaluation.

TSD – Technical Support Document for Water Quality Based Toxics Control. Document No. EPA 505/2-90-001.

TSWQS – Texas Surface Water Quality Standards, 30 TAC §§ 307.1-307.10.

WERF Report – Warren-Hicks, Ph.D., William; Benjamin R. Parkhurst, Ph.D.; and Song Qian, Ph.D. Accounting for Toxicity Test Variability in Evaluating WET Test Results. Document No. 00-ECO-1. 2006. (See Appendix.)

WET Variability Document – U.S. Environmental Protection Agency, Office of Wastewater Management. Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the National Pollutant Discharge Elimination System. Document No. EPA 833-R-0-003. 2000. (Available at <http://www.toxicity.com/pdf/epa2000june.pdf>.)

WET – Whole Effluent Toxicity.

WQS – Water Quality Standards

The Woodlands – the community served by WWTP No. 1.

WWTP No. 1 – The Woodlands Wastewater Treatment Plant No. 1 that is the subject of the Modified Permit.

WWTP No. 2 – The Woodlands Wastewater Treatment Plant No. 2.

RESPONSE TO COMMENTS

I. COPPER MONITORING REQUIREMENTS

SJRA Copper Comment 1:

The IP drafted by TCEQ establishes the procedures and methods by which the TSWQS are implemented through permitting. The IP clearly provides that, in establishing water quality based effluent limits and monitoring requirements, the “average concentration of the effluent data is . . . compared to the daily average limit” and if the “average of the effluent data equals or exceeds 70% but is less than 85% of the calculated daily average limit” monitoring is usually included as a permit condition for the parameter of concern.

EPA Copper Response 1:

The IP does not clearly set out an exact mathematical relationship for percent of pollutant concentration and permit condition but allows for leeway to be used by the permit drafter as to when permit conditions other than limits may be imposed in a permit. Leeway provided to the permit drafter that this condition is left to interpretation is contained in the same citation SJRA used:

“If the average of the effluent data equals or exceeds 70% but is less than 85% of the calculated daily average limit, monitoring for the toxic pollutant will usually be included as a condition in the permit.” (emphasis added)

The inclusion of the word “usually” provides for discretion by the permit writer. There are no changes made to the Final Permit Modification based on this comment.

SJRA Copper Comment 2: SJRA does not consider screening based on a single data point as a valid regulatory policy. A single data point can always be an error as a result of contamination or flawed laboratory procedure. In addition, if a single data point controls the regulatory decision, the number of samples and length of the period of record are irrelevant. The potential impact of a discharge is dependent on the frequency and magnitude of the substance in the discharge. This should be considered when determining permit limits or monitoring requirements.

EPA Copper Response 2:

EPA cited in the Fact Sheet, Page 9, X(A)(d)(vi), that:

“...monitoring requirements is consistent with the CWA. Under CWA §308(a) and 402(b)(2), EPA has broad discretion to establish monitoring conditions in permits.”

EPA believes that, in light of the concern with intermittent toxicity issues at this facility, the requirement to monitor for a pollutant that is a known toxicant and which has been documented at elevated levels in the effluent is appropriate. There are no changes made to the Final Permit Modification based on this comment.

SJRA Copper Comment 3:

SJRA states that as part of the justification for the copper monitoring requirement, the Fact Sheet references a statement in a laboratory report for a TIE study conducted by SJRA. On page 8 of the Fact Sheet, it is stated:

“The report [the TIE report] does discuss that reductions in toxicity by activated carbon treatment is an indicator of the presence of an ‘organic probably non-polar or metal such as zinc or copper’.”

The intent of the statement in the laboratory report is misrepresented in the Fact Sheet. The statement is provided merely to inform the reader regarding the type of substances that might be removed by granular activated carbon, i.e., non-polar organics or metals. Zinc and copper are offered only as examples of the types of metals that may be removed. The statement is not intended to suggest that, in the case of the WWTP No. 1, the probable toxicant is a non-polar organic or zinc or copper. Other TIEs were conducted on samples of effluent from WWTP No. 1 that did not provide an indication that copper was a possible toxicant.

EPA Copper Response 3:

The report states that toxicity was reduced in the sample when an activated carbon treatment was applied. This could indicate the possible toxic presence of a ‘metal’ possibly copper. There is other evidence indicating that elevated levels of copper have been noted in the effluent. EPA is not concluding that this metal was copper, but EPA believes that obtaining additional information is prudent and reasonable.

No changes were made to the Final Permit Modification based on this comment.

SJRA Copper Comment 4:

SJRA believes that EPA's deviation from the IP and inclusion of a copper monitoring requirement based on a single data point is arbitrary and capricious and an abuse of EPA's

discretion. EPA should delete the monitoring requirement for total copper in Part I, Item A.1 and modify the Fact Sheet accordingly.

EPA Copper Response 4:

EPA believes that the TSWQS, TCEQ IP and the CWA allow the permitting authority broad discretion in imposing a monitoring condition for a pollutant. Information made available by the permittee during the application process and previously discussed give EPA sufficient cause to include this monitoring requirement. The Final Permit Modification will have no changes made based on these comments.

II. WET LIMITS AND WET TESTING REQUIREMENTS

[EPA notes regarding the WET comments: SJRA has presented seven parts within the WET section of comments presented over 20 pages of text in its February 27, 2009 letter. For purposes of document management, the seven parts are presented in their original order and with the titles contained in the SJRA comment document. The parts are identified as A thru G in the following WET section with each part having comments and responses.

SJRA Part A Imposition of WET Limits (Part I Item A.1 at page 2; Part II Item E)

SJRA WET Comment 1: 2008 STE

EPA's inclusion of WET limits in the Modified Permit completely ignores the 2008 STE submitted by SJRA in November 2008 that concludes that SJRA's sporadic WET test failures are a result of the unusual ionic composition of the dissolved salts in the potable water supply for The Woodlands. The 2008 STE explains that variability of the test organisms' sensitivity to the ionic characteristics of the water supply, including high alkalinity and low hardness, is the cause of the reported test failures. The 2008 STE documents SJRA's three year study to characterize and identify the cause of its reported sublethal test failures, which included:

The information, analysis and conclusion of the 2008 STE all support the conclusion that rather than imposing WET limits, SJRA qualifies for an exemption from such limits. The definition of toxicity in the TSWQS excludes adverse effects caused by concentrations of dissolved salts, when the salts originate in the source water. EPA's failure to consider the 2008 STE in its permitting decision here is arbitrary and capricious and an abuse of discretion.

EPA WET Response 1:

EPA disagrees with the permittee's statement that its 2008 study "...explains that variability of the test organisms' sensitivity to the ionic characteristics of the water supply, including high alkalinity and low hardness, is the cause of the reported test failures." The "explanation" is conjecture, presented because a specific toxicant had not been identified.

It is highly unlikely that well water that has been treated to attain drinking water quality and purity, then passed through homes, businesses and commercial establishments in a community with a population of 88,000 people, then routed through a wastewater treatment plant is toxic solely due to the variability of health of the test organisms as relates to the concentrations of salts in the original well water. Even if it were so, the data presented by SJRA is, in almost every case, inconclusive with respect to demonstrating linkage between well water, effluent and sublethal toxicity. The 2008 Sublethal Toxicity Evaluation (STE) report cites similarities between sublethal test failure rates between WWTP No.1, WWTP. No. 2 and mock effluent, however there are not enough comparable test results to validate this conclusion. Over the nine month period between November, 2006 and July 2007 ten mock effluent tests were performed (STE, Page VII-3, Table VII-3). During that period only one test was performed for WWTP No. 2 (STE, Page IX-6, Table IX-3). Seven tests were performed on effluent from WWTP No.1 during the period (STE, Page IV-4, Table IV-2). Further, the results reported in the tables referenced above are inconsistent with respect to comparability. Results reported in Table IV-2 are given only as P/F (Pass or Fail); results reported in Table VII-3 are given as % Difference from Control, and results reported in Table IX-3 are given as % Effluent NOEC. EPA believes that there is no factual basis for the study's summary statement (STE, Page X-3) that "The weight-of-evidence of the STE studies supports a conclusion that the sporadic *C. dubia* sublethal test failures at WWTP No. 1 are due to the variability in the sensitivity of test organisms to the unusual ionic composition of the groundwater that serves as the water supply for The Woodlands."

EPA also disagrees that the SJRA effluent would qualify for any type of exemption from permit controls that might be allowable via 30 TAC § 307.3(a)(65). That allowance was developed with specific respect to potential toxicity in discharges from facilities in areas of South and West Texas whose water supplies contain toxic levels of total dissolved solids (TDS, or dissolved salts) and which discharge to streams of similar salinity characteristics. EPA and TCEQ have made these exceptions in only a very few situations where there is a clear and obvious connection between TDS levels, ionic constituents and the relative ratios of those ions in the influent, effluent and receiving stream.

There are no changes made to the Final Permit Modification based on this comment.

• SJRA WET Comment 2: Deviation from IP

The IP only provides for the imposition of lethal WET limits and, then, only in specific cases. The commenter argues that the IP serves as the guiding document establishing how permit limits and requirements are developed to maintain TSWQS. The IP, not the TSD, is the appropriate policy to follow in making a reasonable potential determination as required in 40 CFR 122.44. The commenter argues that the IP has been approved by EPA, and EPA provides no justification for deviation from it. EPA fails to explain how its previous legal evaluation of the IP was incorrect or what circumstances may have changed since 2002 warranting its policy reversal. EPA's failure to abide by the written policy it has approved and implemented in its review of permits for TSWQS, and in the creation of this specific Modified Permit, is arbitrary and capricious and an abuse of its discretion.

EPA WET Response 2:

EPA develops draft permits to comply with State WQS and is therefore not bound by any state guidance in making permitting decisions. Therefore although EPA will make all efforts to follow the processes provided in the IP it is not constrained by the Texas IP. SJRA argues that the Texas IP does not require WET limits for sublethal effects (as opposed to lethal effects). The IP; however, is neither State law nor regulation. The WQS are State law and the WQS require WET limits for sublethal effects. Texas WQS provide that total toxicity limits (WET limits) may be a condition of the permit if toxicity biomonitoring results (WET tests) indicate that the discharge exceeds total toxicity restrictions. 30 Tex. Admin. Code § 307.6(e)(2)(D). Thus, it is clear that, regardless of the language of the IP, the TSWQS themselves require WET limits in the permit if the discharge has demonstrated sublethal toxicity.

A state cannot change its WQS by any other means than by changing the WQS themselves. See 40 CFR 131.21; See also the discussion in this brief at section II.B. The case of Florida Public Interest Research Group Citizen Lobby Inc. (FPIRG) v. EPA, 386 F.3d 1070 (Cir. 4, 2004) contains circumstances that are analogous to those here, and held that even another state regulation cannot modify WQS if the WQS regulations themselves were not changed using the proper procedures. [In FPRIG v. EPA, environmental groups sued EPA seeking to require EPA to review Florida's impaired waters rule (IWR) under the CWA. The IWR set up procedures for Florida to use to implement its State WQS. The IWR specifically states that its purpose is to "interpret existing water quality criteria and evaluate attainment of established designated uses," and it is "not the intent of this chapter to establish new water quality criteria or standards." Fla. Admin. Code Ann. R. 62-303.100(3). Plaintiffs argued that despite this language that when using the implementation rule to interpret State WQS, the implementation rule actually changed the effect of the WQS. Plaintiffs argued that the IWR would result in a less stringent WQS since the IWR required more than a single test result of an exceedance of a WQS before the water body is considered impaired. The Court found that Florida did not use the proper procedures to formally change the State WQS, and that EPA did not approve the IWR as WQS. Seems to me that this should come out. David?] In this case the Court held that, as a matter of law, the WQS set forth in the Florida law remained the WQS in effect for the State of Florida, notwithstanding the Florida Department of Environmental Protection's adoption of the IWR. FPIRG v. EPA, 386 F.3d 1070, 1081 (Cir. 4, 2004).

With respect to SJRA's claim that EPA approved the IP, EPA did comment on and conditionally "approve" the IP as part of the Continuing Planning Process (CPP) required under 40 CFR 130.5(c) and the Memorandum of Agreement between TNRCC and EPA. The State, however, never officially adopted the IP as State WQS. And, TCEQ never submitted nor did EPA approved the IP as an officially adopted State WQS. See 40 CFR 131.21 (WQS do not go into effect until they are officially adopted by the state and EPA approves them). The Texas WQS codified at Tex. Admin. Code Chapter 307 remain the applicable and binding WQS, notwithstanding the Texas IP. Thus, EPA must ensure that the WET limits are consistent with the EPA-approved State WQS.

In support of this position, page 2 of the Texas IP document states:

“This is a guidance document and should not be interpreted as a replacement to the rules. The Texas Surface Water Quality Standards may be found in 30 Texas Administrative Code (TAC) Sections (§§) 307.1-.10.).

When there is a conflict between WQS and other TCEQ rule, the WQS prevail.

§307.2. Description of Standards

* * *

(i) Effect of conflict or invalidity of rule.

* * *

(2) To the extent of any irreconcilable conflict between provisions of this chapter and other rules of the commission, the provisions of this chapter shall supersede.

Texas Admin. Code § 307.2(i)(2).”

According to this language in the Texas WQS, the WQS supercede any other Texas rule where there is a conflict, and thus would certainly supercede this guidance, even if it were a TCEQ rule.

There are no changes made to the Final Permit Modification based on this comment.

SJRA WET Comment 3: TCEQ Record

EPA’s inclusion of WET limits in the Modified Permit directly conflicts with the TCEQ’s specific findings of fact and conclusions of law made after an evidentiary hearing conducted before SOAH in 2005 regarding TCEQ’s renewal and issuance of the State Permit and the inclusion of a WET limit in that permit.

The commenter also claims that for permitted discharges in Texas, the “reasonable potential” review mandated by 40 CFR 122.44(d)(1)(v) is found in the IP. It is not the TSD Reasonable Potential Calculation contained in Appendix G of the Fact Sheet. EPA’s deviation from the IP in this case, and its failure to consider or apply the TCEQ Record, including specific findings of fact and conclusions of law established by TCEQ, constitutes an abuse of EPA’s discretion and is arbitrary and capricious. EPA cannot simply ignore the extensive TCEQ Record and TCEQ Order addressing the imposition of WET limits in SJRA’s permit. Copies of documents comprising the TCEQ Record are submitted as an Appendix to these comments and are incorporated herein for all purposes.

EPA WET Response 3:

EPA disagrees that it has changed any rules or requirements or has addressed any issue in an arbitrary and/or capricious manner. Region 6 has attempted to apply permit conditions that meet the minimum requirements of the Texas water quality standards and federal NPDES permitting regulations, both of which have been in place and unchanged for many years with respect to

WET. SJRA's argument that EPA must adhere to the Texas WQS IP, which are in this case contrary to (and in conflict with) the water quality standards themselves, is without a legal basis.

Following our respective interpretations of both State and federal rules, EPA and TCEQ agreed and presented testimony to the evidentialry hearing that WET limits in the case of SJRA were appropriate. TCEQ does not have an EPA-approved method of determining reasonable potential for WET compliant with its WQS. EPA has communicated this fact, as well as the inadequacy of the State's IP with respect to implementing WET limits based on sublethal effects, to TCEQ and the regulated community on numerous occasions since February, 2005. (See letters Flores January 2004, Flores xx, Flores ...))

EPA regulations at 40 CFR 122.44(d)(1) require permitting authorities to perform a reasonable potential analysis for WET and include WET limits in permits based on a finding that reasonable potential for toxic discharges exists. The regulations require that permits protect WQS. All of Region 6's state's WQS provide protection specifically against both lethal and sublethal affects to aquatic life. As a result of a national "Permitting for Environmental Results" (PERS) assessment initiated by EPA national headquarters in June, 2003, EPA Region 6 and its states were found to be less than fully successful in implementation of the WET program. As a result of this review, EPA national headquarters issued action items for elements of the NPDES programs where improvement was needed. EPA national headquarters directed Region 6 "to include acute limits and chronic limits including sublethal effects in permits where WET reasonable potential is demonstrated." Region 6 modified its WET procedures to this concern in 2005 (EPA issues all permits in New Mexico). In response to the Region's efforts two of our states, Louisiana and Arkansas, have submitted and EPA has approved appropriate revisions to their WET implementation procedures. To date TCEQ has not moved forward to implement an acceptable procedure.

There are no changes made to the Final Permit Modification based on this comment.

SJRA WET Comments 4: TSD

EPA bases its reasonable potential analysis on the TSD. The calculation procedure in the TSD results in a requirement for a permit limit if there is ever a single test failure, regardless of how many tests are conducted and regardless of the time period covered. The commenter states that that this is an unreasonable to impose WET limits based on a single test failure. The procedures in the IP for determining when permit limits are required are clearly superior.

EPA WET Response 4:

EPA does base its reasonable potential calculation procedure on the EPA TSD approach. Based on the number and percentage of test failures reported by SJRA in its compliance discharge monitoring reports, the issue of a single test failure is moot:

“Sublethal WET test failures in the *C. dubia* test have occurred in 35% of the WET tests conducted since January 2004. Since the critical dilution was increased to 85% in January 2006, the WET test failure rate has been 43%.” (STE, Page IV-1)

SJRA would have EPA and the public believe that all toxicity in every one of its many test failures is the fault of test variability, test animal health variability or other factors over which it has no control, and that the only possible appropriate control on its effluent should be limited to failures for multiple lethal effects only, and those which it believes are then ‘true’ test failures according to its definition. As previously stated, the TCEQ IP is inadequate with respect to determining reasonable potential and providing protection of aquatic life provided for in the Texas WQS, and EPA continues efforts to work with TCEQ to implement the necessary revisions to the IP.

There are no changes made to the Final Permit Modification based on this comment.

SJRA WET Comment 5 (Part A): Instream Impacts

EPA states that it has concluded, based on the rate and magnitude of sublethal test failures, that “actual exceedances of the State’s narrative water quality standard for the protection of aquatic life have already occurred.” [emphasis added]. Section X.B.6 also contains a statement that SJRA’s discharge “in fact causes non-attainment of the State’s narrative WQS.” EPA offers no factual support for these statements. There are no data presented documenting adverse impacts on aquatic life in the receiving stream for WWTP No. 1’s discharge. The existence of an impairment cannot be inferred from the WET test results because existing studies of relationships between WET tests of effluent and instream biological communities do not demonstrate that, when the only WET test failures are sublethal and infrequent, there is an associated impairment of the instream biological community.

EPA WET Response 5 (Part A):

With respect to whole effluent toxicity, an exceedance of the State’s narrative water quality standard for the protection of aquatic life, as well as non-attainment of the State’s narrative water quality standard, occurs when a test failure occurs. The Texas water quality standards state:

Chronic total toxicity, *as determined from biomonitoring of effluent samples*, will be precluded in all water in the state with existing or designated aquatic life uses except in mixing zones and at flows less than critical low-flows, in accordance with §307.8 of this title.

It is not necessary to present data that documents actual instream effects for discharges from SJRA’s WWTP No.1. Actual instream data are not required prior to imposing limits to protect aquatic life for *any* pollutant or pollutant parameter. The NPDES waste water discharge program regulations were established to *prevent* toxic discharges that may reasonably be expected to lead to an exceedance of the water quality standard.

SJRA WET Comment 5 (Part B):

EPA and others have conducted a large number of studies to establish the extent to which WET test results are predictive of instream impacts on aquatic life. There are no studies that have shown that intermittent failures of only the sublethal endpoint are predictive of instream impacts. In fact, in a report published by EPA in July 1999, prepared by Victor De Vlaming and Teresa J. Norberg-King (A Review of Single Species Toxicity Tests: Are the Tests Reliable Predictors of Aquatic Ecosystem Community Responses? EPA/600/R-97/114) the authors concluded on page 24:

We appear to be approaching consensus that when significant lethality (and in the case of effluents, assuming accurate dilution has been considered) is seen in toxicity tests, there is a very high potential of aquatic ecosystem impairment. As this connection is accepted, we continue to struggle with the idea that sublethal effects on indicator species can result in detectable adverse ecosystem responses.

EPA WET Response 5 (Part B):

The reference to the quote from EPA/600/R-97/114 must be viewed in context and age. The information in that section was based on WET test methods released by EPA in 1991. Those methods have since been revised and improved in several revisions, resulting in much improved data reliability. Perhaps more importantly, the authors were at this point discussing shortcomings in the use of only one species testing in order to assess the condition of the entire aquatic community in a stream. EPA repeats this same concern several times in its Technical Support Document for Water Quality-Based Toxics Control, 1991 (TSD) - and this is one of the reasons EPA Region 6 requires testing of at least two species.

This does not negate the appropriateness of including WET limits based on sublethal effects. SJRA attacks the scientific validity of sublethal WET testing and limits. SJRA argues that the IP approach, requiring enhanced monitoring and TRE work where there is a WET test failure, is scientifically better than requiring a WET limit. While EPA recommends these actions as the response to any toxicity test failure, it does not do so in lieu of requiring a limit or requiring compliance with a WET limit any more than we do for any other pollutant.

In addition, in Edison vs. EPA, EPA's use of WET tests was challenged and was upheld as a matter of law; [Edison Electric Institute v. EPA, 391 F.3d 1267 (D.C. Cir. 2004)]. In the Edison case, the Court specifically held that with regard to WET limits (including sublethal limits):

EPA's decision was informed by years of scientific studies, negotiation, and public notice-and-comment, and it represents the agency's expert judgment regarding the implementation of the aims of the Clean Water Act. Petitioners have not demonstrated that EPA ignored relevant record evidence, contradicted its own policies without explanation, or otherwise acted arbitrarily and capriciously. Edison Electric Institute v. EPA, 391 F.3d 1267, 1274 (D.C. Cir. 2004).

The Court also specifically mentions “chronic toxicity,” the testing of which includes sublethal effects.

The role of state permitting authorities also should allay the concern, which petitioners express, that the correlation between laboratory toxicity and instream impacts grows weaker at lower levels of toxicity. Before implementing a test method, EPA must establish that the measured characteristic bears a rational relationship to real-world conditions; the available studies reasonably support such a conclusion with regard to chronic toxicity. EPA, Technical Support Document for Water Quality-Based Toxics Control 8 (Mar. 1991) (finding likelihood that data may be explained by randomness, rather than actual correlation, to be 0.1%). Petitioners are worried that they might be subject to excessive restrictions; such limits, however, would be imposed by local authorities, and are not part of the rulemaking under review in this case. The WET test methods offer only a means of measuring compliance with those limits—individual dischargers remain free to challenge their permits, on a case-by-case basis, if they believe that local authorities are regulating at a level that poses only a minimal risk to aquatic life. *Id.* at 1273 (emphasis added).

From this language it is clear that SJRA can challenge its permit based upon a claim that a particular test failure was not valid, but SJRA cannot challenge its permit on the basis that sublethal WET testing methods in general are not scientifically supported. [Not really response to the issue of instream effects. Can't we argue that it is the goal of the NPDES program to control at the source, pollutants that may have the potential to impact stream quality. Surely we can capture some language to this effect]

SJRA Comment 5 (Part C):

SJRA is unaware of any studies since 1999 that have reached a different conclusion (i.e. “that sublethal effects on indicator species can result in detectable adverse ecosystem responses”). In fact, a recent study by the Water Environment Research Foundation [Evaluation of WET Testing as an Indicator of Aquatic Health in Effluent-Dominated Streams: A Pilot Study. 03-ECO-2T. by Jerry Diamond, James Stribling (2007)] found that, “WET test results [of effluent] exhibited few relationships with [instream] bioassessment results, and could not usually predict instream effects even when incorporating actual effluent dilution.” It is notable that, in this study, most of the *C. dubia* and Fathead Minnow WET test failures were sublethal rather than lethal.

EPA Response 5 (Part C):

Several non-EPA works published prior to 1999 examined relationships between chronic toxicity (including sublethal effects) and detectable adverse effects in streams. In particular, a study of North Carolina streams found high agreement between chronic WET test results and instream biological conditions (Eagleson et al, “Comparison of Measured Instream Biological Responses with Responses Predicted Using the *Ceriodaphnia dubia* Chronic Toxicity Test, Environmental Toxicology and Chemistry, Vol. 9, pp 1019-1028, 1990).

Instream toxicity was predicted with whole effluent toxicity tests. These results were then compared to the observed instream response of the aquatic community. Forty-three comparisons were conducted in freshwater flowing systems using *Ceriodaphnia dubia* chronic toxicity test procedures and standardized qualitative sampling of benthic macroinvertebrates. In 88% of the comparisons there was agreement between both measures. These data suggest that the use of effluent toxicity testing results as a regulatory tool is effective and appropriate. Comparisons used whole effluent toxicity limitations similar to those being written in North Carolina's NPDES permits for discharge to surface waters.

There are also several errors in SJRA's assessment of the study Water Environment Research Study. First the study itself explicitly warns against drawing such conclusions, as is clearly stated in section 3.10, on page 3-8:

The foregoing analyses of WET tests and associated quality control analyses conducted in this pilot study *suggest several findings of relevance to the design of a future study* that examines quantitative relationships between WET test results and instream biological condition. Some of these findings are process-related as opposed to technical but are equally important in terms of how WET testing should be conducted in such a study and the types of MQOs (measurement quality objectives) that can reasonably be required. *It is important to note that this was a pilot study with relatively few facilities and laboratories participating. Therefore, one must be cautious in extrapolating the findings observed here to facilities and laboratories in general.* (emphasis added)

In addition, SJRA fails to note that the study states that results for *Ceriodaphnia dubia*, the test species of concern in this permit action, were the least problematic of the three species used in the study's WET testing. The study species showing the greatest toxicity and number of associated problems was an algae, *Selenastrum capricornutum*. Permits issued in EPA Region 6, including the permit for SJRA, do not require this test or test species. Finally, after much wider comparative testing over a period of several years, Ohio EPA determined that bioassessment and WET data did not correlate well – and that WET often *underestimates* instream effects, i.e. biological assessments find impairment that was not predicted by WET testing. (Chris Yoder CITATION HERE). In addition, EPA has established policy on independent applicability, which requires permit limits based on the most sensitive criteria a State has established, whether chemical, WET or biocriteria (bioassessment). (INCLUDE IA Policy as attachment).

There are no changes made to the Final Permit Modification based on this comment.

SJRA Comment 6:

The commenter documents that both the NOEC and IC approach are identified as equally acceptable in EPA guidance documents. They provide numerous detailed technical arguments as to why IC should be considered as the preferred approach. Please see comment letter for specific arguments.

EPA WET Response 6:

The EAB generally will not grant review unless the petitioner establishes that a permit condition is based on a clearly erroneous finding of fact or conclusion of law, or involves an exercise of discretion or an important policy consideration that the Board determines warrants review. 40 CFR 124.19(a)(1)-(2); In re Carlota Copper Co., 11 E.A.D. 692, 708 (EAB 2004). Here, the agency had a choice to make, and that choice was an exercise of discretion. [this para is more of a legal argument left to the attorneys, David please use or not this concept in your review]

EPA Region 6, as part of its NPDES oversight of implementing the WET program for its 1100 major dischargers, believes that using NOEC as the endpoint in permits is the best approach to ensuring compliance with the Texas aquatic life criteria. TCEQ, similar to the other four states in EPA Region 6, has established the NOEC test data evaluation in all permits issued since Texas was authorized to administer the NPDES permitting program in 1995. Prior to then, EPA Region 6 issued the NPDES permits for Texas and all of those permits also established NOEC data analysis. Since 1989, for the over 500 major discharge permits in Texas, and 1100 in EPA Region 6 States, most have been issued with chronic testing requirements and all of those have established NOEC data analysis. No NPDES permits with chronic testing requirements have been issued with point-estimate data analysis requirements. In response to annual queries on revising the data analysis approach, TCEQ and the other Region 6 States have elected to retain NOEC analysis.

The test design revisions adopted by Region 6 in 1996 are those given on page 3-10 of EPA's June 2000 guidance document "Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the National Pollutant Discharge Elimination System," cited by the Petitioner. These changes included narrowing the effluent dilution ratios, using a narrower dilution factor of 0.75 rather than 0.50, and increasing the number of replicates per treatment. This approach, plus the permit requirement that the effluent critical dilution be one of the concentrations tested, ensures that NOEC testing in EPA Region 6 provides a reliable analysis of the data.

EPA has not approved the full "South Carolina PE approach," even for South Carolina. The 40% benchmark has been disallowed as not being adequately protective. The balance of the South Carolina approach is an IC25 (point estimate testing), which that State has adopted for its use. Texas and the other four States in EPA Region 6 have elected to continue using the NOEC approach (hypothesis testing), which is equally supported by EPA's WET test methodologies. EPA Region 6 believes that the hypothesis test, which measures effects at the actual instream waste concentration tested (the critical dilution), is a more appropriate means of measuring permit compliance than a point-estimate test, which extrapolates an effluent concentration value (not an effluent concentration that was actually used in the test) based on a percent effect.

EPA also disagrees that an IC25 is more rigorous or appropriate than the NOEC as performed in Region 6. With respect to the SJRA comment regarding EPA's use of a 0.75 dilution series in order to establish the effluent concentrations to be tested, this is the same factor used by TCEQ and the other EPA Region 6 States. The referenced fact sheet statement was included as partial explanation for a program revision EPA undertook many years ago to strengthen the WET test data analysis by reducing the ratio between effluent dilutions (the relative "distance" between effluent concentrations of 100% and 75% is less than the "distance" between effluent concentrations of 100% and 50%.) This approach is long-recognized and included on page 14 in the Quality Assurance section of the EPA promulgated WET test method manual:

4.14.6 It should be noted here that the dilution factor selected for a test determines the width of the NOEC-LOEC interval and the inherent maximum precision of the test. As the absolute value of the dilution factor decreases, the width of the NOEC-LOEC interval increases, and the inherent maximum precision of the test decreases. When a dilution factor of 0.3 is used, the NOEC could be considered to have a relative variability as high as $\pm 300\%$. With a dilution factor of 0.5, the NOEC could be considered to have a relative variability of $\pm 100\%$. As a result of the variability of different dilution factors, USEPA recommends the use of the dilution factor of 0.5 or greater.

Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 4th ed. EPA 821-R-02-013 (USEPA 2002a), page 14 (emphasis in original).

EPA's WET test method manuals clearly establish that both NOEC and IC provide acceptable endpoints for the purpose of demonstrating compliance with NPDES permit requirements. The WET test method manual referenced above states:

8.10.1 The tests recommended for use in determining discharge permit compliance in the NPDES program are multi-concentration, or definitive, tests which provide (1) a point estimate of effluent toxicity in terms of an IC25, IC50, or LC50, or (2) a no-observed-effect-concentration (NOEC) defined in terms of mortality, growth, reproduction, and/or teratogenicity and obtained by hypothesis testing.

Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 4th ed. EPA 821-R-02-013 (USEPA 2002a), page 36 (emphasis added).

Thus, it is clear that either the IC25 method or the NOEC method will provide scientifically valid WET data analysis. It is entirely within the scientific discretion of the permitting authority to determine which test and analysis to use. In 1989, EPA as the Regional permitting authority, made a scientific determination based on the WET testing methods manuals and the TSD that the NOEC test analysis was the most appropriate test evaluation criteria for all permits for which Region 6 was the permitting authority. This was reaffirmed in the Region's 2005 WET procedures document. EPA Region 6 and its states have chosen to use the NOEC for WET test

reporting and have integrated it into their State WQS because they have determined over the years that this is the best endpoint to use for R6 dischargers.

There are no changes made to the Final Permit Modification based on this comment.

SJRA Part C. Use of Test Results Below the Critical Dilution (Part II Items D&E at pgs 2-16)

SJRA WET Comment 7:

NOEC should not be retained as the endpoint for chronic tests. However, if it is, all permit provisions dependent on a determination of NOEC and or the evaluation of test results, should be revised to delete the phrase “and below” and “or below”; including, the following sections of the Modified Permit: pages 3 and 4 of Part II (Section D.2), page 4 of Part II (Section D.2.a.1.ii), page 11 of Part II (Section D.6.a), and page 12 of Part II (Section E.1.c) and any other provisions where the phrases appear.

EPA WET Response 7:

The phrase “or below” has been removed as requested. However, EPA has added a requirement to report information where the standard statistical analysis indicates significant toxic effects at effluent concentrations of 25%, 33%, 44%, or 59%, regardless of whether significant toxic effects were indicated at the critical dilution of 78%.

The Final Permit Modification will remove the phrase “or below” from the WET section as requested.

SJRA Part D. Compliance Determination for Chronic Tests (Part I Item A.1. at p.2 ; Part II. Item E.3.c)

SJRA WET Comment 8: Limits for Other Chronic Toxicants

Permit limits for other parameters that are included to control instream chronic toxicity are not set such that it is a permit violation if there is a single-sample exceedance of the concentration required to maintain WQS at the critical dilution. Typically, the concentration required to maintain WQS applies a 30-day average concentration limit. Since chemical parameters can be analyzed daily, this could be an average of tests performed on 24-hour composite samples, and this limit could be calculated based on as many as 30 samples. The permit limit for a single 24-hour composite sample is twice the 30-day average limit, typically. And the limit for a grab sample is typically three times the limit for the 30-day average. It should also be noted that test results for chemical analyses are substantially less variable than results for WET tests.

EPA WET Response 8:

EPA disagrees. Any single exceedance of a permit limit; for chemical or WET, constitutes a permit violation. EPA then uses enforcement discretion with how it responds to the violation,

including the magnitude of the violation(s) and whether multiple violations occurred during the reporting period. As the commenter states, chemical analyses are generally performed at a much higher frequency than WET testing thus allowing for a statistical estimate. For WET testing which is analyzed on a less frequent basis, every three months at best, it does not make sense to perform such manipulation of test and compliance results.

With regards to the variability associated with WET testing, WET is comparable to the variability associated with chemical analyses. This was noted in the text and footnote 4 on page 7 in *Edison Electric Institute v. EPA*, 391 F.3d 1267 (D.C. Cir. 2004):

EPA, on the other hand, finds that the data support the conclusion that these WET test methods exhibit a degree of precision compatible with numerous chemical-specific tests already in use. We credit EPA's conclusions on this point.

and

⁴ The preferred metric for assessing precision is the coefficient of variation (CV), which measures the extent to which multiple measurements tend to depart from their average value. The greater the CV, the less precise the measurement. By computing the CV using toxicity units (TUCs) rather than the percentages originally recorded by EPA, petitioners arrive at a grossly inflated result. For example, analyzing reference toxicant data, Interlaboratory Study at 81-82 tbl.9.8, EPA's approach yields a CV of approximately 0.43—well within the range of EPA's other approved tests, Memorandum from Marion Kelly, EPA Engineering and Analysis Division 1 (Oct. 16, 2002) (CVs of approved chemical methods range from 0.03 to 0.64, and CVs of organic methods from 0.12 to 1.04). Petitioners' approach, however, using the distorting TUC scale, results in a CV of 1.47—more than triple the correct value. *Edison Electric Institute v. EPA*, 391 F.3d 1267, 1274 (D.C. Cir. 2004).

There are no changes made to the Final Permit Modification based on this comment.

- SJRA WET Comment 9: Lethal and Sublethal Tests Require Different Regulatory Approaches

Because of differences in test variability and the frequent inability of permittees to conduct a successful sublethal TRE, the sublethal WET permit limits should be different than the lethal WET permit limits.

EPA WET Response 9:

EPA disagrees. EPA did not "...recognize that a sublethal WET test cannot be implemented the same as a lethal WET test." When Region 6 began implementing sublethal TRE requirements in 2005, it developed the referenced permitting practices as part of an *interim* approach to help concerned parties (e.g., State permitting agencies, the regulated community and labs) move forward with the new requirements. Other permitting authorities have not seen the need to

provide such an accommodation and Region 6 will not continue it ad infinitum. EPA Region 6 believes toxicity should be addressed as quickly and completely as possible in order to prevent exceedances of the State WQS.

See also WET comment 8 for a response to the issue of variability.

There are no changes made to the Final Permit Modification based on this comment.

SJRA WET Comment 10: Predictability of Instream Impacts

The reasonableness of considering a single test failure a permit violation is also called into question when one considers the lack of evidence linking a single test failure to instream biological impacts. A WERF study published in 1999 [Diamond, J., C. Daley, and T. Moore, Evaluating Whole Effluent Toxicity Testing as an Indicator of Instream Biological Condition, Project 95-HHE-1] found that the relationship between WET test failures and instream biological impairments was more likely to exist if a discharger failed at least 25% of their tests. As discussed above, there are no studies that have shown that intermittent failures of only the sublethal endpoint are predictive of instream impacts.

EPA WET Response 10:

EPA disagrees. As in its previous comment on instream impacts, EPA disagrees with the premise that even a single sublethal violation represents an acceptable level of discharger compliance, much less a 25% failure rate. [See previous comment]

There are no changes made to the Final Permit Modification based on this comment.

SJRA WET Comment 11: Test Variability

Establishing a regulatory requirement that every test must pass is inconsistent with the known variability of the *C. dubia* test, particularly the reproduction test. Such a standard cannot be achieved regardless of the diligence of the permittee. Compliance should be based on a median value of tests conducted over a 12-month period.

EPA WET Response 11:

EPA disagrees with the concept a 12 month median limit for WET. Toxic waste water discharges impact aquatic life and ecosystems on a daily basis and must be addressed as quickly as is reasonably possible. Streams are already at a serious ecological disadvantage due to the relative infrequency of WET testing, where one test per quarter is the norm. This testing frequency means that the toxicity of discharges from a facility is evaluated for only 3 days out of 90, or about only 3% of the time. Further, as previously referenced, issues of both test variability and using test results for purposes of compliance with NPDES permit limits has already been addressed the unanimous decision rendered in *Edison Electric Institute v. EPA*, 391 F.3d 1267,

1274 (D.C. Cir. 2004). EPA provided a detailed discussion of the variability issue in the Fact Sheet for this permit.

With respect to the proposal for an annual averaging for a WET limit, the stochastic nature of toxic excursions at wastewater treatment plants are influenced by many factors (e.g., inputs of toxic materials to the sewer systems, rain events, and the timing of various other upsets). As such, it is expected that if toxicity is observed in the effluent from a wastewater treatment plant that is operating normally, it may occur on a periodic and episodic basis, as evidenced by toxicity at the SJRA facility. Because only a small portion of the effluent is tested to determine toxicity (three days a month under a monthly chronic testing scheme), there is a significant concern that any toxicity detected in such tests is representative of longer-term toxic impacts to the receiving stream. The damage associated with such impacts is done at the time of discharge. As such, even though annual averaging of test results may appear to indicate no net impacts or exceedances of the WET limits, the periodic excursions of WET limits are of significant concern and should not be discounted. In fact, the period required for recovery of stream systems is expected to require up to a year or more (TSD, pages 29, 36, 72, 98, 134). Therefore, it is necessary to continue to monitor and limit whole effluent toxicity on a more frequent basis in order to prevent longer-term impacts that might be masked by an annual averaging period.

There are no changes made to the Final Permit Modification based on this comment.

SJRA Part E. WET Testing Reporting Requirements (Part I Item A.1 at p. 2; Part II Item E.3.b. at p. 16)

SJRA WET Comment 12:

Provide definitions for the terms used.

- Lowest 30-day Average Minimum
- 7-day Minimum
- Daily Average Minimum

Provide for the possibility of reporting more than one test during a reporting period. The repeated use of the words “lowest” and “minimum” in the Reporting Requirements suggest that in the event that SJRA conducts more than one test in a reporting period, EPA is only interested in the lowest NOEC observed and that only the lowest NOEC is to be reported. The section implies that any additional tests demonstrating effluent quality different than the lowest NOEC are basically ignored by EPA and should not be reported.

EPA WET Response 12:

The terms “lowest and “minimum” are self-explanatory, have been used for over ten years in numerous permits with WET limits and have never been deemed problematic by other permittees. “Lowest” means the lowest NOEC value, lethal or sublethal, measured in a compliance test for the species during the reporting period (see example below) That value, as

directed, is entered into the DMR 7-DAY MINIMUM column. The DMR DAILY AVERAGE MINIMUM column is used to report the averaged NOEC values, if more than one test was performed for the species during the reporting period.

Reporting Period Results – C. dubia

TEST No.	1	2	3	
NOEC _(SL)	32%	76%	76%	$(32+76+76) / 3 = 186/3 = 62$
The 7-DAY MINIMUM	= 32%			
The DAILY AVERAGE MINIMUM	= 62%			

While the DMR form only allows one event to be posted per reporting period, the permit instructs the permittee that additional tests may be reported with (i.e., attached to) the DMR. A letter explaining the attached test data should also be attached. However, when a test failure occurs, the permit automatically increases the testing frequency from once per quarter to once per month, with the results to be reported each month. Permittees are not required to test more frequently than once per month, but they are certainly not prohibited from doing so. Permittees must report the results and include copies of the tests for all additional tests initiated.

There are no changes made to the Final Permit Modification based on this comment.

SJRA Part F. WET Compliance Schedule (Part I Item B. at p.4)

SJRA WET Comment 13:

If, however, EPA persists in imposing WET limits and disregarding the TSWQS, the compliance schedule should be revised. Currently, Part I.A of the permit (footnote 10 on page 2) specifies that the WET limits are effective beginning three (3) years after the “permit effective date.” The permit effective date is set forth in the permit as November 1, 2007, the date the permit was initially issued. Therefore, the compliance period would end October 31, 2010, slightly over a year and one-half from now. The implementation of the WET limit provisions in the permit was delayed, pending the results of the appeal to the Environmental Appeals Board. The three-year compliance period should not begin until final action is taken with respect to the WET limits.

EPA WET Response 13:

WET limits and the compliance schedule remain in the permit. However, the compliance period for WET will commence with this permit’s effective date. That statement was in the draft and no changes are needed to be made in the Final Permit Modification. [what about their point that a lot of work has been done already, our requirement for compliance schedules is that they be completed as expeditiously as possible. If they have already done all of this work do they need up to three years? WL] **PJ - I don't disagree, but we have allowed everyone else three years to meet the sublethal limit.**

SJRA Part G. Trigger for Sublethal TRE, Fathead Minnow (Part II Item II.D.2.a.iii at p.4)**SJRA WET General Comments:****SJRA WET Comment 14:**

Section II.D.2.a.iii addresses when a TRE is required if there are sublethal failures of the Fathead Minnow test. This provision should be reworded to state,

“If any two of the three additional tests demonstrates 40% sublethal effects at the highest dilution tested, the permittee”

In addition, this paragraph specifies that the Sublethal Effects TRE initiation date will be the test completion date of the “first” failed retest. Since the TRE is not required until there is a second failed retest, this sentence should be revised to establish the TRE initiation date as the test completion date of the second failed retest.

EPA WET Response 14:

The provision has not been revised. All significant toxic effects should be investigated to the maximum level reasonably possible. EPA disagrees with ~~the~~ SJRA’s entirely unsupported statement that “It is not possible to do the TIE studies that are typically necessary to perform a TRE unless there is at least a 40% reduction in the sublethal response, in the highest effluent dilution.” I want to make a positive statement that we believe evidence exists that TREs can be performed at these levels. WLJ PJ – In addition, the TRE requirements for the fathead minnow in the permit only establish under what circumstances a TRE must be performed (i.e., only after 3 test sub-lethal failures in a 4-month period). The permit TRE conditions do not include any requirement to perform toxicant identification evaluation (TIE) studies or to identify the pollutant(s) responsible for the toxicity; they require the permittee to take measured steps that will lead to reducing the toxicity found in the discharge.

There are no changes made to the Final Permit Modification based on this comment.

- STOP PHIL J RESPONSES ON WILLIE LANE VERSION**III. OUTFALL 002 MONITORING CLARIFICATION AND CHANGES****SJRA Outfall 002 Summary Comment:****SJRA Outfall 002 Comment 1:**

All monitoring and reporting requirements are specified as applicable only “when discharging.”

EPA Outfall 002 Response 1:

EPA concurs with the request. The Final Permit Modification shall have a footnote added to Outfall 002 that states "When discharging" for all monitoring and reporting requirements.

SJRA Outfall 002 Comment 2:

Flow is measured continuously when discharging from Outfall 002.

EPA Outfall 002 Response 2:

See Response 1 above.

SJRA Outfall 002 Comment 3:

For all parameters where 24-hour composite samples are required (CBOD₅, TSS, and NH₃-N), 24-hour composite samples collected at Outfall 001 are sufficiently representative of the discharge quality at Outfall 002. (Samples for Outfall 001 and Outfall 002 are collected at the same location.) Permit limits for each outfall apply to the sample that is representative of both outfalls. Additionally, TRC, pH, and DO measurements for Outfall 001 are sufficiently representative of the discharge quality for Outfall 002. Permit limits for each outfall apply to the sample that is representative of both outfalls.

EPA Outfall 002 Response 3:

EPA concurs with the request with condition. The normal operations of the facility has five-day sampling requirements. The facility uses a 24-hour sampler collecting composite samples for each of those five days. As long as Outfall 002 discharges during the time that the sampler devices are collecting composite samples for Outfall 001, EPA concurs with the request. The samples collected will be representative of both outfalls.

The facility has stated that discharges from Outfall 002 will however be infrequent in both the number of consecutive days and the flow duration per day. Discussions with SJRA have confirmed that discharge to Outfall 002 is by a pump operated by SJRA. Further communications reveal that flow is pumped to Lake Harrison only when the golf course requests it.

With the more restrictive permit limits for Outfall 002 for CBOD₅, NH₃-N and DO, EPA wants to ensure that discharges into Lake Harrison meet those limitations. Under the infrequent time and limited duration of discharge into Lake Harrison, the Final Permit Modification will require that a sample be obtained each day a discharge is made to Lake Harrison thru Outfall 002. Since SJRA controls the pump, coordination with the golf course would allow the facility to discharge to Lake Harrison during the normal five-day sample schedule when the automatic samplers are in operation. If discharges must be made on either Saturday and/or Sunday however, then samples shall be taken on each day as needed. Since the pump time may be less than a 24 hour time frame, instead of requiring 24-hour composite samples for TSS, CBOD₅ and NH₃-N, EPA shall allow grab samples, identical to the other limited parameters for the outfall.

The Final Permit Modification will have a change showing that samples are required each day of discharge into Lake Harrison from Outfall 002. The Final Permit Modification will also show that grab samples type for all parameters is grab samples and that samples taken from the automatic sampler used for Outfall 001 may be used.

SJRA Outfall 002 Comment 4:

Samples are only required once per week on normal workdays of Monday through Friday for all parameters except flow when discharging from Outfall 002.

EPA Outfall 002 Response 4:

EPA does not concur with this request. See EPA Outfall 002 Response 3 above. Since under normal five day operations, the sampling for Outfall 002 is taken at the same time as Outfall 001 and the effluent concentrations for Outfall 002 are more stringent than for Outfall 001, there is no additional burden on the facility for that period of time. EPA Outfall 002 Response 3 above presented the case for discharges to Outfall 002 during Saturday and Sunday. Those added conditions are to ensure compliance with the more restrictive permit limitations for the infrequent and non continuous discharges into Lake Harrison.

There are no changes made to the Final Permit Modification based on this comment.

IV. CORRECTION OF INFORMATION IN THE FACT SHEET AND TYPOGRAPHICAL ERRORS

SJRA noted Typographical or Factual Data Errors (TFDE) in the Fact Sheet or draft permit.

SJRA TFDE Comment 1:

Permit - Part I Item A.1 at page 2. The two sections on "Effluent Characteristics" for WET include a parenthetical "See Part II, Section F." These references should be revised to state, "See Part II, Section E."

EPA TFDE Response 1:

EPA concurs and the Final Permit Modification will be changed to "See Part II, Section E."

SJRA TFDE Comment 2:

Fact Sheet - Population Information, Item VIII at page 2. The population of The Woodlands is approximately 88,000.

EPA TFDE Response 2:

Noted in the administrative record.

SJRA TFDE Comment 3:

Fact Sheet - Discussion of Permit Limits and Monitoring Requirements for Outfall 002 - Item X.3 at page 5. The last sentence of the second paragraph should be revised to clarify that limits applicable to Outfall 002 do not apply to Outfall 001 on days that discharge occurs at Outfall 002.

EPA TFDE Response 3:

The two outfalls each have their own set of limits and no changes to the Final Permit Modification are needed as a result of this comment.

SJRA TFDE Comment 4:

Fact Sheet - Item X4.b at page 6. This paragraph suggests that biomonitoring requirements apply to Outfall 002 which is inconsistent with the Modified Permit. This language should be clarified.

EPA TFDE Response 4:

The paragraph in question in the fact sheet is discussing critical dilution only. The paragraph does not mention biomonitoring in any regard. Biomonitoring conditions were not included in the draft permit for Outfall 002.

No changes are required to the Final Permit Modification based on this comment.

EPA TFDE Comment 5:

During the review of the Final Permit Modification, an omission in Section E of Part II of the Permit was found. The following item, "1. SCOPE AND METHODOLOGY" was left out just above subpart "a" at the top of the section. The omission has been corrected in the Final Permit Modification.

