

Buddy Garcia, *Chairman*  
Larry R. Soward, *Commissioner*  
Bryan W. Shaw, Ph.D., *Commissioner*  
Glenn Shankle, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

February 11, 2008

TO: Persons on the attached mailing list.

RE: Taiwan Shrimp Village Association, Inc. and Arroyo Aquaculture Association, Inc.  
TPDES Permit No. WQ0003596000

### **Decision of the Executive Director.**

The executive director has made a decision that the above-referenced permit application meets the requirements of applicable law. **This decision does not authorize construction or operation of any proposed facilities.** Unless a timely request for contested case hearing or reconsideration is received (see below), the TCEQ executive director will act on the application and issue the permit.

Enclosed with this letter is a copy of the Executive Director's Response to Comments. A copy of the complete application, draft permit and related documents, including public comments, is available for review at the TCEQ Central office. A copy of the complete application, the draft permit, and executive director's preliminary decision are available for viewing and copying at the Harlingen Public Library, 410 76 Drive, Harlingen, Texas.

If you disagree with the executive director's decision, and you believe you are an "affected person" as defined below, you may request a contested case hearing. In addition, anyone may request reconsideration of the executive director's decision. A brief description of the procedures for these two requests follows.

### **How To Request a Contested Case Hearing.**

It is important that your request include all the information that supports your right to a contested case hearing. You must demonstrate that you meet the applicable legal requirements to have your hearing request granted. The commission's consideration of your request will be based on the information you provide.

The request must include the following:

- (1) Your name, address, daytime telephone number, and, if possible, a fax number.
- (2) If the request is made by a group or association, the request must identify:
  - (A) one person by name, address, daytime telephone number, and, if possible, the fax number, of the person who will be responsible for receiving all communications and documents for the group; and
  - (B) one or more members of the group that would otherwise have standing to request a hearing in their own right. The interests the group seeks to protect must relate to the organization's purpose. Neither the claim asserted nor the relief requested must require the participation of the individual members in the case.
- (3) The name of the applicant, the permit number and other numbers listed above so that your request may be processed properly.
- (4) A statement clearly expressing that you are requesting a contested case hearing. For example, the following statement would be sufficient: "I request a contested case hearing."

Your request must demonstrate that you are an **"affected person."** An affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. Your request must describe how and why you would be adversely affected by the proposed facility or activity in a manner not common to the general public. For example, to the extent your request is based on these concerns, you should describe the likely impact on your health, safety, or uses of your property which may be adversely affected by the proposed facility or activities. To demonstrate that you have a personal justiciable interest, you must state, as specifically as you are able, your location and the distance between your location and the proposed facility or activities.

Your request must raise disputed issues of fact that are relevant and material to the commission's decision on this application. The request must be based on issues that were raised during the comment period. The request cannot be based solely on issues raised in comments that have been withdrawn. The enclosed Response to Comments will allow you to determine the issues that were raised during the comment period and whether all comments raising an issue have been withdrawn. The public comments filed for this application are available for review and copying at the Chief Clerk's office at the address below.

To facilitate the commission's determination of the number and scope of issues to be referred to hearing, you should: 1) specify any of the executive director's responses to comments that you dispute; and 2) the factual basis of the dispute. In addition, you should list, to the extent possible, any disputed issues of law or policy.

### **How To Request Reconsideration of the Executive Director's Decision.**

Unlike a request for a contested case hearing, anyone may request reconsideration of the executive director's decision. A request for reconsideration should contain your name, address, daytime phone number, and, if possible, your fax number. The request must state that you are requesting reconsideration of the executive director's decision, and must explain why you believe the decision should be reconsidered.

### **Deadline for Submitting Requests.**

A request for a contested case hearing or reconsideration of the executive director's decision must be in writing and must be **received** by the Chief Clerk's office no later than **30 calendar days** after the date of this letter: You should submit your request to the following address:

LaDonna Castañuela, Chief Clerk  
TCEQ, MC-105  
P.O. Box 13087  
Austin, Texas 78711-3087

### **Processing of Requests.**

Timely requests for a contested case hearing or for reconsideration of the executive director's decision will be referred to the alternative dispute resolution director and set on the agenda of one of the commission's regularly scheduled meetings. Additional instructions explaining these procedures will be sent to the attached mailing list when this meeting has been scheduled.

### **How to Obtain Additional Information.**

If you have any questions or need additional information about the procedures described in this letter, please call the Office of Public Assistance, Toll Free, at 1-800-687-4040.

Sincerely,



LaDonna Castañuela  
Chief Clerk

LDC/mr

Enclosures

MAILING LIST

for

Taiwan Shrimp Village Association, Inc. and Arroyo Aquaculture Association, Inc.  
TPDES Permit No. WQ0003596000

FOR THE APPLICANT:

Yuan-shih Kou  
Taiwan Shrimp Village Association, Inc.  
And Arroyo Aquaculture Association, Inc.  
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PROTESTANTS/INTERESTED PERSONS:

See attached list.

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APPLICATION BY §  
TAIWAN SHRIMP VILLAGE §  
ASSOCIATION, INC. AND ARROYO §  
AQUACULTURE ASSOCIATION, INC. §  
FOR TPDES PERMIT NO. WQ0003596000 §

BEFORE THE 2008 FEB -4 PM 1:57  
TEXAS COMMISSION ON  
CHIEF CLERKS OFFICE  
ENVIRONMENTAL QUALITY

**EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT**

The Executive Director of the Texas Commission on Environmental Quality (the Commission or TCEQ) files this Response to Public Comment (Response) on the application for a major amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0003596000 by Taiwan Shrimp Village Association Inc. and Arroyo Aquaculture Association, Inc. (Applicant) and the Executive Director's preliminary decision. Pursuant to 30 Texas Administrative Code (30 TAC) § 55.156, before an application is approved and a permit issued, the Executive Director prepares a response to all timely, relevant and material, or significant comments. The Office of the Chief Clerk timely received comment letters from Joyce Armstrong, Tom Aycok, Mario and Anne Benavides, Paul H. Bergh, Donald B. Brown, Sr., Dr. Robert O. Collier, Bond Cosby, Jack Gibson, Jo Gibson, James Green, James F. Guffey, Mr. and Mrs. Gary Herridge, Hugh R. and Linda Koch, Bobbie and Billy Scaife, Donna and Bob Swinnea, Patricia Saleh, Cameron County Commissioner Edna Tamayo, Tom Traylor, Herbert and Aldena Wagoner, and Gene C. Yates. A public meeting was held on November 16, 2006. Formal written comments were received during the public meeting by Paul H. Bergh, Linda Koch, Bud Koch, and Pete Sanchez. Formal oral comments were provided at the public meeting by Linda Koch, Bud Koch, Gene C. Yates, Paul H. Bergh, James F. Guffey, Carl Tinsley, Gary Herridge, Bobbie Scaife, and Rex G. White. This Response addresses all timely filed public comments received, whether or not withdrawn.

**BACKGROUND**

Facility Description

The Applicant operates an aquaculture facility that produces shrimp and has applied to the TCEQ for a major amendment to TPDES Permit No. WQ0003596000 to remove the prohibition of discharge from the facility during the months of January through March and to revise the Arroyo Colorado Water Quality Study requirement to reduce influent and effluent sampling frequencies. The current permit authorizes the discharge of process wastewater (pond effluent) at a combined daily average flow not to exceed 100,000,000 gallons per day via Outfalls 001 and 002.

The facility is located on the south side of Farm-to-Market Road 2925 and approximately 1.4 miles east of the intersection of Farm-to-Market Road 2925 and Farm-to-Market 1897 in the

City of Arroyo City, Cameron County, Texas. The effluent is discharged via Outfall 001 directly to the Arroyo Colorado Tidal; and via Outfall 002 to a drainage ditch; then to the Arroyo Colorado Tidal in Segment No. 2201 of the Nueces-Rio Grande Coastal Basin. The unclassified receiving waters have high aquatic life use for the unnamed drainage ditch. The designated uses for Segment No. 2201 are high aquatic life use and contact recreation.

#### Procedural Background

The application was received on April 30, 2002 and declared administratively complete on November 20, 2002. The Notice of Receipt of Application and Intent to Obtain a Water Quality Permit (NORI) was published on December 12, 2002 in the *Valley Morning Star*. The Executive Director completed the technical review of the application on April 29, 2005 and prepared a draft permit. The Notice of Application and Preliminary Decision (NAPD) was published on September 21, 2006, in the *Valley Morning Star*. The comment period ended on November 16, 2006 following the public meeting. Since this application was administratively complete after September 1, 1999, it is subject to House Bill 801 (76<sup>th</sup> Legislature, 1999).

#### **COMMENTS AND RESPONSES**

##### COMMENT 1:

Dr. Robert O. Collier, Gene C. Yates and Donald B. Brown Sr. object to the Applicant's request to discharge year-round. Mario and Anne Benavides ask to be informed on the consequences of the proposed amendment application. Joyce Armstrong objects to the amendment request to discharge 365 days a year as this would adversely effect the water quality of the Arroyo Colorado. Herbert and Aldena Wagoner object to the increase in the currently permitted volume of wastewater authorized for discharge. Pete Sanchez requests to know the reason for the amendment request and the reason that the discharge was previously prohibited during the time period of January through March. Also, Mr. Sanchez wants to know that there will be no impact on aquatic life spawning during the spring. Bud Koch, representing the Arroyo City Advisory Committee, requests that the TCEQ keep the permit requirements as they currently exist. Jack and Jo Gibson comment that it appears that the facility is requesting the amendment because they are having problems meeting the current requirements. Rex White comments that the permittee is requesting an extension to dump for four more months and to dump more volume in a year's time and not taking anything away but adding. Paul Bergh is opposed to the revisions as stated in the draft permit. Mr. Bergh comments that after consultation with the Applicant, Texas Parks and Wildlife, and TCEQ personnel, it is his understanding that the goal is to seek latitude in the annual discharge period in order to stay within discharge limits. Mr. Bergh suggests that the draft permit be revised to allow discretionary discharge between the months of January and February provided that discharges are prohibited for an equal time during the last part of the proceeding year.

## RESPONSE 1:

Based upon the above comments, the Applicant has amended their initial request to remove the prohibition of discharge during the months of January through March. The Applicant's new request is to retain the three month prohibition of discharge but change the months of prohibition from "January through March" to "March through May." This would allow the facility to take advantage of the cooler months prior to discharge. Further, it would restrict the number of months in which the facility may discharge to nine months as in the current permit. The permit would keep a three month period without discharge as intended by the previous prohibition. The draft permit has been revised to prohibit the discharge of wastewater during the months of March, April, and May.

The intent of the Applicant's request is to reduce algal growth within the ponds which has resulted in violations of the permitted total suspended solids effluent limitations. The permittee is requesting the option to hold the wastewater for a longer period of time prior to discharge by using harvested ponds and ditches for additional solids settling. Moving the prohibition of discharge to March through May will allow the facility to retain the discharge through the cold weather season (December, January, and February) to allow the lower temperatures to eliminate algae without the need for algicides or additional water treatment chemicals. The TCEQ Water Quality Standards Team has reviewed this request and has determined that there will be no impact to spawning aquatic life during periods of discharge.

The Applicant has made several improvements to the treatment system to facilitate the settling of suspended solids, including widening and deepening of discharge canals to increase storage capacity. Following harvesting, the effluent is recycled to unused harvesting ponds for retention and treatment prior to discharge. The Applicant's recycling efforts have reduced the number of days the facility has had to discharge effluent into the Arroyo. Additionally the facility has installed ten sets of paddlewheels to provide additional aeration for nutrient removal which decreases algal concentrations within the ponds.

The Applicant has not applied to increase the rate or volume of discharge from the current permit. The draft permit would continue to authorize discharge at a combined daily average flow not to exceed 100,000,000 gallons per day via Outfalls 001 and 002, as set out in the current permit.

In summary, in response to comments, the Executive Director has amended the draft permit to prohibit the discharge of wastewater during the months of March, April, and May.

COMMENT 2:

Gene C. Yates opposes any revisions to the Arroyo Colorado Water Study to reduce any influent or effluent sampling frequencies.

RESPONSE 2:

“Other Requirement” Item No. 11 of the existing TPDES permit requires the Applicant conduct a water quality study of the Arroyo Colorado. The study is designed to evaluate the effects of the operation on the diversion of water from and the discharge of effluent to the Arroyo Colorado.

The Applicant requested that the study be modified to reflect the current influent and effluent discharge patterns at the facility. The Applicant requested to reduce the influent sampling to once per month during the months of April through October since these are the months that the Applicant brings in water from the Arroyo and does not discharge. The existing permit requires influent analysis during months when there is no intake of water. Therefore, the existing requirement is ineffective for measuring the effects of the diversion of water from the Arroyo since no intake water will be available for sampling. Upon consultation with TPWD, TCEQ has approved the revisions to the Water Quality Study sampling frequencies to reflect the actual influent and discharge practices at the facility. This change does not relax any effluent limitations or monitoring frequencies designed to protect water quality. The Arroyo Water Quality Study is separate from the effluent limitations included on Page 2 of the draft permit.

The Arroyo Water Quality Study requirement is included in the Other Requirements section of the draft permit. Other Requirement Item No. 11 of the draft permit states:

The permittee shall continue the water quality study to evaluate the effects of this operation on the diversion and use of water from the Arroyo Colorado. Sampling shall be conducted upon influent and upon the effluent at Outfalls 001 and 002 for nitrate-nitrogen, nitrite-nitrogen, total phosphorus, volatile suspended solids, chlorophyll-a, salinity, carbonaceous biochemical oxygen demand (5-day), ammonia nitrogen, and total suspended solids. The influent shall be sampled once per month during the months of April through October. The effluent shall be sampled twice per week during periods of discharge. A summary report on the results of each year's sampling shall be submitted to the TCEQ Water Quality Division's Industrial Team (MC-148), and to the Texas Parks and Wildlife Department, Resource Protection Division, and to EPA's Region 6 no later than December 31<sup>st</sup> of each year. Alternatively, the permittee has the option to participate in an industry-wide effluent characterization study by coordinating with other shrimp farming industries. The permittee shall submit an equivalent effluent characterization study, with other industry participants, to the TCEQ's Industrial Permits Team for review and approval no later than six (6) months after the harvest season (April 28th of each year).

Regarding sampling requirements, the draft permit proposes reducing the influent sampling frequency for salinity from once per day to once per month during the months of April through October. The draft permit reduces the influent sampling frequency for all other parameters from once every two weeks during April, May, and June; weekly during July; and six times per month during August, September, and October to once per month during the months of April through October. The effluent sampling frequency has been changed from once every two weeks during April, May, and June; weekly during July; and six times per month during August, September, and October to twice per week during any period of discharge. The sampling schedule will help provide a more representative assessment of the facility's operation.

Additionally, the deadline for submittal of the summary report has been extended from December 1<sup>st</sup> to December 31<sup>st</sup> so that the Texas Parks & Wildlife Department (TPWD) and TCEQ will receive the data for discharges that occur during the month of December. There has been no change to the parameters required to be sampled prior to the discharge of effluent via the permitted outfalls.

**COMMENT 3:**

Jack Gibson comments that discharged effluent should be more than or as clean as the intake water. James Guffey comments that the permittee should be required to stay within their permit limits and keep the water discharged as clean as the water they take in. Gene C. Yates requests that the permit not be relaxed or allow wastewater to be returned to the Arroyo without controlled monitoring. Pete Sanchez asks to know the requirements of the existing permit.

**RESPONSE 3:**

Texas Water Code § 26.027 authorizes TCEQ to issue permits for the discharge of waste into water in the state, provided the discharger does not violate state or federal laws enacted to protect the environment. The Executive Director has determined that the draft permit is protective of the environment, water quality, and human health. The draft permit includes effluent limitations and monitoring requirements designed to ensure that the treated effluent meets Texas Surface Water Quality Standards (TSWQS) for the protection of surface water and human health according to TCEQ rules and policies. Additionally, the draft permit is designed to protect and maintain the existing uses of the receiving waters.

Final effluent limitations are established in the draft permit at Outfalls 001 and 002 as follows:

Outfall Nos.	Parameter	Daily Average		Daily Maximum	
		lbs/day	(mg/l)	lbs/day	(mg/l)
001 & 002	Flow (*1)	100 MGD		180 MGD	
	Carbonaceous Biochemical Oxygen Demand (5-day)	1334	4.0	2002	6.0
	Ammonia Nitrogen	333	1.0	667	2.0
	Total Suspended Solids	N/A	30	15012	45
	Inorganic Suspended Solids	N/A	(Report)	N/A	(Report)
	Dissolved Oxygen	N/A	(N/A)	6.0 mg/l minimum	
	pH (standard units)	(6.0 minimum)		(9.0 maximum)	

(\*1) The combined flows via Outfalls 001 and 002 shall not exceed a daily average flow of 100 MGD. The combined flows via Outfalls 001 and 002 shall not exceed a daily maximum flow of 180 MGD.

Effluent limitations for carbonaceous biochemical oxygen demand (5-day) (CBOD<sub>5</sub>), ammonia nitrogen, total suspended solids, dissolved oxygen, inorganic suspended solids, and pH are continued from the current permit at both outfalls without revision. Parameters for oxygen demanding constituents including CBOD<sub>5</sub>, ammonia nitrogen, and dissolved oxygen are consistent with the modeling recommendations of the Water Quality Assessment Team Interoffice Memorandum dated December 23, 2002. These parameters help ensure the discharge does not lower the dissolved oxygen of the Arroyo Colorado below the value required to

maintain the designated uses which is 4.0 mg/l. These limits were evaluated and derived from the QUAL-TX model documented in the EPA approved Waste Load Evaluation for the Arroyo Colorado in the Nueces-Rio Grande Coastal Basin, Segments 2201 and 2202 (1990). QUAL-TX is a steady-state model that is well known and rapidly predicts water quality profiles in an advective and dispersive system. Water quality constituents are predicted as a water column average, even in dispersive (tidal) systems. Consequently, the recommended limits are more protective since they are maintaining a dissolved oxygen concentration throughout the depth of the water column, and not just the surface layer.

The effluent limitations for total suspended solids (TSS) are consistent with the current permit and are continued in the draft permit without revision. TSS limitations regulate the discharge of suspended pond bottom sediments potentially discharged during harvesting activities. The proposed daily maximum effluent limitation of 45 mg/l is more stringent than the those required for secondary treatment of sanitary sewage via oxidation ponds as required in 30 Texas Administrative Code (TAC) § 309.4, which is a daily maximum of 90 mg/l. The effluent limitation for pH of 6.0 to 9.0 standard units is consistent with the current permit. Limitations on pH variation helps ensure the effluent does not alter the neutrality of the receiving waters.

TSWQS include numeric criteria for the protection of aquatic life and human health. Analytical data submitted with the application was evaluated for compliance with TSWQS and no water quality based effluent limitations for any toxic pollutants were determined to be necessary based upon this screening. Detailed descriptions for the derivation of effluent limitations based upon TSWQS at 30 TAC Chapter 307, are available within the TCEQ Procedures to Implement Texas Surface Water Quality Standards document at:

[http://www.tceq.state.tx.us/comm\\_exec/forms\\_pubs/pubs/rg/rg-194.html](http://www.tceq.state.tx.us/comm_exec/forms_pubs/pubs/rg/rg-194.html)

The draft permit includes Whole Effluent Toxicity testing, also known as Biomonitoring, which is continued from the current permit at Outfalls 001 and 002. Biomonitoring evaluates the effluent's effects on invertebrate and vertebrate organisms within the receiving waters. The required tests have been updated to replace 48 hour acute testing with chronic testing. The 24 hour acute testing will be continued from the existing permit. Chronic testing evaluates the effluent's 7-day effects on survival and growth of an invertebrate and vertebrate test species. Acute testing evaluates the effluent's 24-hour effects on survival of an invertebrate and vertebrate test species. This test monitors the survival and growth of the organisms within a mixture of wastewater and the receiving water at various concentrations. The concentrations are dictated by the TCEQ Implementation Procedures and are based on the discharge mixing zone. A detailed description of biomonitoring is available within the TCEQ Procedures to Implement Texas Surface Water Quality Standards document at the above listed web site address.

COMMENT 4:

Linda and Bud Koch comment that the facility has a history of non compliance with their permit requirements including best management practices (BMPs) and effluent limitations. Linda and Bud Koch further comment that property owners have a large investment and will not tolerate or ignore non-compliance of the permit. Gene C. Yates comments that the shrimp farm management indicated that the industry wanted to be a good neighbor. However, good neighbors do not dump waste products that threaten the environment. Gene C. Yates further comments, “[w]e are not asking the shrimp farm management to do something they are not capable of doing. They do not want to comply with their permit.”

RESPONSE 4:

The following is a quantitative description of the discharge described in the Monthly Effluent Report data for the period of December 2000 through March of 2007. Violations of permit effluent limitations are **bolded and underlined** below. Outfall 001 did not discharge during the time period of December 2000 through March of 2007. Additionally, please see the chart in Response 3 for a list of the final effluent limitations.

Outfall 002:

Parameter	Month of Discharge	Daily Average	Daily Maximum
Flow - million gallons per day	December 2000	14.7	34.1
	November 2001	19.6	36.7
	November 2002	14.7	27.6
	November 2003	20.8	41.9
	December 2004	11.8	21.0
	December 2005	4.32	8.00
	December 2006	10.5	12.0
Carbonaceous Biochemical Oxygen Demand (5-day) Milligrams per liter	December 2000	2.6	3.5
	November 2001	1.8	3.0
	November 2002	<b><u>4.6</u></b>	5.0
	November 2003	3.8	5.6
	December 2004	<b><u>7.2</u></b>	<b><u>8.9</u></b>
	December 2005	<b><u>13</u></b>	<b><u>14</u></b>
	November 2006	2.9	<b><u>7.7</u></b>
Carbonaceous Biochemical Oxygen Demand (5-day) Pounds per day	December 2000	259	524
	November 2001	294	496
	November 2002	576	1101
	November 2003	264	389
	December 2004	544	891
	December 2005	585	744
	November 2006	261	793

Parameter	Month of Discharge	Daily Average	Daily Maximum
Total Suspended Solids	December 2000	<u>35</u>	<u>46</u>
Milligrams per liter	November 2001	30	42
	November 2002	14	24
	November 2003	23	34
	December 2004	<u>35</u>	<u>46</u>
	December 2005	<u>107</u>	<u>120</u>
	November 2006	27	38
Total Suspended Solids	December 2000	N/A	5534
Pounds per day	November 2001	N/A	4354
	November 2002	N/A	5285
	November 2003	N/A	2361
	December 2004	N/A	5592
	December 2005	N/A	5995
	November 2006	N/A	3910
Inorganic Suspended Solids	December 2000	31	43
Milligrams per liter	November 2001	22	32
	November 2002	2	3
	November 2003	16	29
	December 2004	31	46
	December 2005	69	89
	November 2006	18	26

Ammonia Nitrogen	December 2000	Not Detected	Not Detected
Milligrams per liter	November 2001	0.2	1.6
	November 2002	0.1	0.2
	November 2003	0.2	0.3
	December 2004	0.9	<b>2.2</b>
	December 2005	0.9	1.0
	November 2006	0.6	0.8
Ammonia Nitrogen	December 2000	Not Detected	Not Detected
Pounds per day	November 2001	40	117
	November 2002	17	41
	November 2003	12	18
	December 2004	137	379
	December 2005	35	50
	November 2006	63	80

Parameter	Month of Discharge	Daily Minimum	Daily Maximum
pH – standard units	December 2000	7.6	8.0
	November 2001	6.9	8.3
	November 2002	7.7	8.3
	November 2003	7.8	8.9
	December 2004	8.1	8.3
	December 2005	8.3	8.9
	November 2006	7.2	8.8
Dissolved Oxygen Milligrams per liter	November 2000	7.3	N/A
	December 2000	6.2	N/A
	November 2001	6.1	N/A
	November 2002	8.3	N/A
	November 2003	6.4	N/A
	December 2004	6.0	N/A
	December 2005	6.1	N/A
	November 2006	7.9	N/A

Total Suspended Solids (TSS):

Self-reported effluent data indicate that the Applicant violated concentration based (mg/l) effluent limitations for TSS during December 2000, December 2004, and December 2005. The Applicant requested to amend the existing discharge permit in order to reduce algal growth within the ponds which has resulted in violations of the permitted TSS effluent limitations. The Applicant is requesting the option to hold the wastewater for a longer period of time prior to discharge by using harvested ponds and ditches for additional solids settling. Moving the prohibition of discharge to March through May will allow the facility to retain the discharge through the cold weather season (December, January, and February). This practice will allow the lower temperatures to help eliminate algae without the need for algicides or additional water treatment chemicals. Elimination of suspended algae particles will aid the Applicant's compliance with the TSS limitations.

Dissolved Oxygen:

Self-reported effluent data indicate that the Applicant violated concentration based (mg/l) effluent limitations for CBOD<sub>5</sub> during November 2002, December 2004, December 2005, and November 2006; and ammonia nitrogen during December of 2004. However, during each of these months the Applicant complied with the minimum dissolved oxygen requirement of 6.0 mg/l. The current daily average CBOD<sub>5</sub> effluent limitation is one of the most stringent CBOD<sub>5</sub> limitation of any permitted facility in the State of Texas.

Numeric effluent limitations for oxygen demanding constituents including CBOD<sub>5</sub>, ammonia nitrogen, and dissolved oxygen are consistent with the modeling recommendations of the Water Quality Assessment Team. These limits are designed to ensure the instream dissolved

oxygen requirements of the receiving stream to maintain the high aquatic life use designation. CBOD<sub>5</sub> measures the amount of oxygen consumed by decomposing organic (carbonaceous) compounds in the wastewater. This test excludes the oxygen demand exerted by nitrogenous compounds, which is measured separately by the ammonia nitrogen analysis of the wastewater. The CBOD<sub>5</sub> of the wastewater affects the amount of dissolved oxygen in the receiving water body. The greater the CBOD<sub>5</sub> of the wastewater, the more rapidly oxygen is depleted within the receiving water body. Cold water can hold more gas dissolved oxygen than warm water. During the summer months when the receiving water is warmer, its ability to absorb more gaseous oxygen may be limited by elevated water temperatures. The Applicant's amendment request to hold the discharge until months of colder weather will create less impact to dissolved oxygen in the Arroyo Colorado.

#### Nutrients:

Excessive nutrients may promote algal blooms, which decrease receiving water dissolved oxygen concentration levels and impede light penetration to aquatic plants. TSWQS requires that the discharge of nutrients from permitted facilities shall not cause excessive growth of aquatic vegetation that would impair the designated uses for the Arroyo Colorado and Laguna Madre. The organic portion of TSS within the discharge also has the potential to decrease dissolved oxygen concentrations. Discharges from aquaculture facilities are potentially high in nutrient content and suspended solids due to uneaten food, animal waste, mortality, burrowing, phytoplankton and turbulence during discharge. The draft permit includes a requirement for the Applicant to update the existing BMPs based upon new Federal Effluent Guidelines for Aquatic Animal Production point sources at 40 Code of Federal Regulations Part 451. The Applicant is required to update the BMPs to further minimize the discharge of nutrients and suspended solids from this facility through normal operations and preventive measures. Nutrient loading is controlled by the proposed effluent limitations for both TSS and oxygen demanding constituents within the TPDES permit. Increases of the nutrient content in the discharge will be detected by an increase in the concentration of TSS concentrations, an increase in oxygen demanding constituents, and a decrease in the dissolved oxygen concentration in the effluent.

#### Whole Effluent Toxicity Testing:

Biomonitoring requirements are continued from the existing TPDES permit at Outfalls 001 and 002. From January 2000 to November 2002 the Applicant conducted 48-hour chronic and 24-hour testing at the permit stipulated testing frequency using both *Mysidopsis bahia* and *Menidia beryllina* with no reported significant toxicity at Outfall 001. From December 2004 to December 2005 the Applicant conducted 48-hour chronic and 24-hour testing at the permit stipulated testing frequency using both *Mysidopsis bahia* and *Menidia beryllina* with no reported significant toxicity at Outfall 002.

By accepting a permit, the Applicant has a duty to comply with all conditions of the permit. The Applicant is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act, the Texas Water Code, Chapters 26, 27, and 28, and Texas Health and Safety Code, Chapter 361. These violations include knowingly

making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under the permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulation.

TCEQ may be contacted to investigate whether a permit violation has occurred. Potential permit violations may be reported to TCEQ Region 15 Office in Harlingen at (956) 425-6010, or by calling the state-wide toll-free number at 1-888-777-3186. Citizen complaints may also be filed online at the following website:

<http://www.tceq.state.tx.us/enforcement/complaints/index.html>.

**COMMENT 5:**

Gene C. Yates comments that the farm management said it has no room for wetlands or settling ponds, but they continue to add shrimp producing ponds. Jack Gibson comments that this facility does not have dedicated settling ponds for treatment. Carl Tinsley comments that the facility has added new ponds within the last couple of years.

**RESPONSE 5:**

The Applicant has indicated that no production ponds have been added since the farm was constructed. However, the facility has made several improvements to the treatment system to facilitate solids settling, including the widening and deepening of the discharge canals to increase storage capacity and including additional paddlewheels for aeration. The facility has three five-acre dedicated settling ponds prior to discharge to the drainage ditch system which may discharge via Outfall 001 or Outfall 002.

**COMMENT 6:**

Gene C. Yates inquires why the farms have to discharge wastewater and where does it go? Gene C. Yates is concerned that suspended solids are being introduced into the waterway and inquires whether there has been any measurement made to see if sediment is filling up the Arroyo and whether or not the waste discharge dissolves, smothers, or settles. Bobbie Scaife has noticed that the barges drag bottom and it seems that it is due to sediment going into the Arroyo. If this is the case, reduction of the sediment should be achieved prior to discharge. Mr. and Mrs. Gary Herridge and Mr. Bond Cosby comment that the discharge is noticeable due to the discoloration of the receiving water and debris. Jack Gibson comments that the Applicant's BMPs are not sufficient to protect water quality and should be changed. Donald B. Brown Sr. comments that the discharge of shrimp wastes, food, and fertilizer is detrimental to water quality.

**RESPONSE 6:**

The production ponds are drained in order to harvest the shrimp. Following harvesting, the effluent is recycled to unused harvesting ponds for retention and treatment prior to discharge. The Applicant's recycling efforts have reduced the number of days the facility has had to discharge effluent into the Arroyo. The effluent is discharged via Outfall 001 directly to the Arroyo Colorado Tidal; and via Outfall 002 to a drainage ditch; then to the Arroyo Colorado Tidal in Segment No. 2201 of the Nueces-Rio Grande Coastal Basin.

Discharges from aquaculture facilities are potentially high in nutrient content and suspended solids due to uneaten food, animal waste, mortality, burrowing, phytoplankton and turbulence during discharge. To address these issues, a new requirement to update the permittee's existing Best Management Practices (BMPs) Plan based upon new Federal Effluent Guidelines for Aquatic Animal Production point sources at 40 Code of Federal Regulations Part 451. BMPs are schedules of activities, maintenance procedures, and other practices designed to prevent or reduce the pollution of water in the state from point and nonpoint sources. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

The Applicant is required to update the BMPs to minimize the discharge of nutrients and suspended solids from this facility through normal operations and preventive measures. The draft permit would require the permittee to:

1. Develop, maintain, and certify a BMP plan that describes how the facility will meet the requirements of the permit.
2. Prevent discharge of drugs and pesticides that have been spilled and minimize discharges of excess feed.
3. Regularly maintain production and wastewater treatment systems.
4. Keep records on numbers and weights of animals, amounts of feed, and frequency of cleaning, inspections, maintenance, and repairs.
5. Train staff to prevent and respond to spills and to properly operate and maintain production and wastewater treatment systems.

6. Report the use of experimental animal drugs or drugs that are not used in accordance with label requirements.
7. Report failure of or damage to a containment system.

At a minimum the following practices must be implemented and included in the BMP Plan:

1. Use feed management practices that include, but are not limited to, monitoring of feeding trays/mechanical feeders to measure and record food consumption rates.
2. Reduce or minimize waste exchange rate between receiving waters and ponds [no greater than 10% per pond volume per day].
3. Aerate and circulate pond water. The reuse of pond wastewater should occur to the maximum extent possible. Pond wastewater must be recirculated or reused wherever appropriate and cost effective.
4. Install settling basins or use existing non-production ponds for settling.
5. Earthen levees and dikes must be vegetated when possible or stabilized in a manner to control erosion. Vegetation, when utilized, must be maintained at all times through mowing, watering, or other suitable maintenance practices.
6. All discharges must be controlled such that flow rates minimize any increase in turbidity of the receiving stream due to erosion or suspension of sediments. Sludge and pond bottom sediment must be confined and not pumped into public areas or canals. Dewatering of ponds must be accomplished by discharge of the uppermost portion of the water column when possible to avoid discharge of disturbed bottom sediments.
7. Removal of pond bottom sludges (or other solids) from production ponds or wastewater management ponds must be conducted during favorable wind conditions that carry odors away from nearby receptors such as residences, businesses, and public buildings. At no time may emissions from any activity create a nuisance.
8. Sweeping or intentional flushing of accumulated solids from raceways and fabricated tanks with discharge to waters in the state is prohibited.
9. Discharges must not cause substantial and persistent changes from ambient conditions of turbidity and color.
10. Dead aquatic species must be routinely removed from ponds and properly disposed of as is required to prevent contamination of waters in the state and to prevent a nuisance or public health hazard.

The draft permit is more stringent than the federal requirements within 40 CFR Part 451 since the permit includes numeric effluent limitations for total suspended solids (TSS) in addition to the BMP requirements. TSS limitations control the potential discharge of suspended pond bottom sediments during the dewatering of the ponds. Please see response No. 3 for the permitted effluent limitations for TSS.

Elevated inorganic suspended solids (ISS) increase the potential for deposition of sediments in the receiving water body, impact to benthic communities, and turbidity. TSWQS prohibit discharges from causing substantial and persistent changes from ambient conditions of turbidity or color in the receiving water. The existing monitoring requirements for ISS have been continued in the draft permit.

The draft permit prohibits the discharge of floating solids in other than trace amounts. TCEQ may be contacted to investigate whether the Applicant has violated the permit. Potential permit violations may be reported to TCEQ Region 15 Office in Harlingen at (956) 425-6010, or by calling the state-wide toll-free number at 1-888-777-3186.

#### **COMMENT 7:**

Pete Sanchez requests that the TCEQ conduct an environmental impact study to ensure there is no degradation caused by the discharge prior to issuance. Tom Aycock comments that the discharge will result in the degradation of the water quality of the Arroyo Colorado and the Laguna Madre. Tom Traylor comments that the discharge will harm the water quality of the receiving waters. Gene C. Yates comments that the statement "no significant degradation of high quality receiving waters is anticipated" is ridiculous since the discharge is muddy and would smother any living creature.

#### **RESPONSE 7:**

TCEQ's antidegradation policy applies to any increase in pollution authorized by a TPDES wastewater discharge permit. Increases in pollution are determined by information on effluent characteristics that are provided in the permit application, the draft permit, and other available sources. The Water Quality Standards Team may conduct a Tier 1 and/or Tier 2 review. Antidegradation reviews under Tier 1 help ensure that existing water quality uses are not impaired by increases in pollution loading. TPDES permit amendments or new permits that allow increased pollution loading are subject to review under Tier 1 of the antidegradation policy, and all pollution that could cause an impairment of existing uses is included in the evaluation.

Antidegradation reviews under Tier 2 help ensure that water quality exceeds the normal range of fishable/swimmable criteria. The second tier of the antidegradation policy generally applies to water bodies that have existing, designated, or presumed uses of contact recreation and intermediate, high, or exceptional aquatic life waters. TPDES permit amendments and new permits that allow an increase in loading are subject to review under Tier 2 of the antidegradation policy.

The effect of a proposed discharge is compared to baseline water quality conditions in order to assess the potential for degradation of water quality. Analyses to assess the impact of a proposed discharge on water quality are available in the Procedures to Implement Texas Surface Water Quality Standards document in the chapters titled "Determining Water Quality Uses and Criteria" and "Evaluating Impacts on Water Quality."

In considering potential degradation, the TCEQ water quality standards team reviewer considered the current state of the Arroyo Colorado, including any listings of impairment. The Arroyo Colorado is listed on the 303(d) list for impaired dissolved oxygen, however this listing pertains to an area approximately 16 miles upstream and was not considered to be problematic for this permit action. The TCEQ Water Quality Standards Team determined that with the proper effluent limits assigned by the TCEQ modeling team, no degradation of high quality water is anticipated. Numerical and narrative criteria necessary to protect existing uses will be maintained in the draft permit.

The draft permit no longer proposes complete removal of the three month prohibition of discharge. The prohibition of discharge has been moved from "January through March" to "March through May." This will restrict the number of months in which the facility may discharge to nine months as authorized in the current permit. The permit will keep a three month period without discharge as intended by the previous prohibition. Therefore, there is no proposed increase in loading than currently authorized in the existing permit. The draft permit includes effluent limitations and monitoring requirements designed to ensure that the discharge meets TSWQS to protect and maintain the existing uses of the receiving waters.

The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions.<sup>1</sup> To meet this requirement, federal agencies must, for certain federal actions, prepare detailed statements known as Environmental Impact Statements (EIS). An EIS is not required for state actions such as this permit. Accordingly, the Executive Director does not instruct the permittee to complete an environmental impact study under the TPDES permitting program.

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<sup>1</sup>42 United States Code (USC) §4332.

**COMMENT 8:**

James Green comments that the discharge will be detrimental to the ecosystem and the numerous native species which inhabit the area of the discharge and the Laguna Atascosa Wildlife Refuge. James Green requests that the EPA and US Department of Fish and Wildlife be notified of the discharge and the discharge be denied. Tom Traylor comments that the discharge will harm the fish and wildlife in the surrounding environment. Bob and Donna Swinnea are concerned that the discharge will contaminate fish. Jack Gibson comments that the Arroyo Colorado is a nursery area for a myriad of shrimp, crabs, and small fin fishes. Mr. Bond Cosby, comments that the discharge is responsible for the disappearance of bait fish and shrimp during the occurrence of the discharge and lasting for periods of many months.

**RESPONSE 8:**

30 TAC Chapter 307 refers to TSWQS and designates criteria for the protection of aquatic life and human health in water in the state. The draft permit would not authorize the discharge of any pollutants in excess of the limitations calculated for the protection of aquatic life and human health in accordance with TSWQS. TSWQS state that "surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life." The methodology outlined in the "Procedures to Implement the Texas Surface Water Quality Standards" is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that results in instream aquatic toxicity, causes a violation of an applicable narrative or numerical state water quality standard, results in the endangerment of a drinking water supply, or results in aquatic bioaccumulation that threatens human health.

Typically if excess nutrients are added to an aquatic system, the more tolerant baitfish and predator species' numbers increase in that area to take advantage of this new nutrient supply, however the variety of different species and the more sensitive species often decrease in number. The effluent set given to this facility has been determined to be appropriate for maintaining the attainable uses of the Arroyo. Shrimp facilities located within the coastal zone are subject to more stringent requirements because the coastal area of Texas has been identified as an area warranting special consideration. The Gulf Coast is considered to be one of the most biologically rich and ecologically diverse regions of the state. Texas has chosen to address these concerns by developing, and obtaining federal approval for, the Texas Coastal Management Program (CMP). TCEQ rules require that permits for wastewater discharges to coastal waters be consistent with the CMP. The Executive Director has reviewed this action for consistency with the goals and policies in accordance with the regulations of the Coastal Coordination Council (CCC) and has determined that the action is consistent with the applicable CMP goals and policies. Provided the operator of the facility operates within their permitted limits, the ecosystem should continue to be diverse and support the wide range of organisms that the aquatic system would be capable of sustaining in the absence of this facility.

The proposed discharge has been reviewed to determine if it could potentially have any adverse effect on an aquatic or aquatic-dependent federally endangered or threatened species, including proposed species. This review is conducted in accordance with the Memorandum of Agreement (MOA) between the TCEQ and EPA concerning the TPDES program, available on the agency's Web site ([www.tceq.state.tx.us](http://www.tceq.state.tx.us)), the United States Fish & Wildlife Service (USFWS) Biological Opinion (dated September 14, 1998) associated with assumption of the TPDES program by the State of Texas, and an update to that Biological Opinion (dated October 21, 1998). The USFWS Biological Opinion includes a list of the United States Geological Survey (USGS) hydrological unit codes (HUCs) that have been matched to both the counties and the classified segments into which the watersheds drain. Based upon this review, there is no priority watershed of critical concern with respect to endangered and threatened species in Segment No. 2201 in Cameron County. Therefore, no endangered or threatened aquatic or aquatic dependent species (including proposed species) occur in this area. This determination was made by referencing Appendix A of the U.S. Fish and Wildlife Service biological opinion, dated September 14, 1998, on the State of Texas authorization of the Texas Pollutant Discharge Elimination System.

Notice of this application was mailed to the EPA and the Texas Parks & Wildlife Department (TPWD), among others. The TCEQ, TPWD, and the Texas Department of Agriculture (TDA) have adopted a Memorandum of Understanding (30 TAC § 7.013) which requires that the agencies work cooperatively in the regulation of aquaculture activities. This cooperation is vital to mitigate any potential impacts due to the escape of exotic species out-competing native species for food and/or habitat, hybridization with native species, transfer of diseases, and destruction of habitat. The TPWD is included in the technical review of the permit application and draft permit comment process to assist in the determination of whether the proposed discharges will adversely affect terrestrial and aquatic life or water in the state. TPWD and TDA require aquaculture facilities to prove that they possess or have applied for the appropriate TCEQ disposal authorizations if they will discharge wastewater into or adjacent to water in the state prior to issuing a TPWD exotic species permit or TDA aquaculture license. Additionally, TPWD biologists retain the authority to quarantine diseased exotic shellfish and require aquaculture operators to have their exotic shellfish certified as disease-free by a TPWD department-approved disease specialist.

The effluent limitations are developed to maintain and protect the existing uses of these waters and are consistent with TSWQS, which provide for the protection and propagation of terrestrial and aquatic species. This includes the protection of shrimp nursery habitat. Please see Response No. 3 for a listing of the effluent limitations included in the draft permit.

**COMMENT 9:**

Jack Gibson comments that authorizing more discharge volume with less testing flies in the face of the work being done upstream. Hundreds of thousands of dollars have been spent and millions more are to be spent. Jack Gibson comments that progress is being made and this is no time to lower standards affecting this tidally influenced portion of the Arroyo Colorado. Jack Gibson comments that with the new sewage treatment plants and everything up stream coming down stream, we are not even staying within status quo; we're letting them have more volume per year. Jack Gibson comments that when we write specs up to 2010, the employees for the shrimp farm will change and the employees for the TCEQ will change and all we have is the written work and the written specs we've written today. Jack Gibson further comments that they are going to be interpreted as they see it at that time because it is like accounting. Jack Gibson comments that we need to guard against some creative spec reading. Paul Bergh and Gene C. Yates comment that the improvements to upstream wastewater treatment facilities including wetlands treatment is inconsistent with this amendment to increase pollutant loading into the Arroyo Colorado. Patricia Saleh comments that there needs to be more clean-up effort and not more pollution. Donald B. Brown Sr. comments that the waste treatment system should be comparable to the Rancho Viejo Community Domestic Wastewater Treatment System. Mr. Tinsley asks why the permittee cannot add settling tanks to clean up the water like they do in municipalities to send the water back as clean as they got it.

**RESPONSE 9:**

The Arroyo Colorado (Segment No. 2201) is currently listed on the State's inventory of impaired and threatened waters (the Clean Water Act Section 303(d) list). A listed water body refers to the area of a water body that does not meet water quality standards. This listing is specifically for depressed levels of dissolved oxygen in the upper 16 miles of the segment. A 303(d) listing for dissolved oxygen impairment means that the Arroyo is failing to sustain the dissolved oxygen requirements necessary for its aquatic life uses. Physical modifications of the Arroyo Colorado to accommodate barge traffic have resulted in reduced stream velocity, circulation, and aeration within the Arroyo Colorado. These factors combined with high nutrient levels from urban, agricultural, and wastewater sources have contributed to depressed dissolved oxygen within the zone of impairment. The Arroyo Colorado collects treated wastewater from approximately 18 municipal wastewater plants. However, the effluent limitations for oxygen demanding constituents are more stringent for this facility when compared to the municipal wastewater facilities.

A Total Maximum Daily Load (TMDL) for the Arroyo Colorado Segment 2201 has been prepared. The TMDL Program works to improve water quality in impaired or threatened water bodies in Texas. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards. Water quality standards identify the uses for each water body, for example, contact recreation (swimming), and aquatic life support (fishing), and the criteria to support that use. The TMDL determines the allowable loads of a single pollutant from all contributing point and nonpoint sources. A TMDL determines the extent

to which a certain pollutant must be reduced in order to attain and maintain a use of surface water that is limited because of a pollutant. An implementation plan outlines the steps necessary to reduce pollutant loads through regulatory and voluntary activities.

The TCEQ and the Texas State Soil and Water Conservation Board (TSSWCB) have formed a steering committee which has developed a watershed protection plan to reduce pollutants contributing to the impairment of the Arroyo Colorado. The committee includes multiple work groups to address wastewater infrastructure, agriculture, habitat restoration, land use and development, education and outreach, TMDL and monitoring. The Arroyo Colorado Watershed Protection Plan is designed to reduce the nutrient levels via best management practices and constructed wetlands for treatment of point source and nonpoint source pollution.

The watershed protection plan does not currently address discharges from this facility because the discharge enters the Arroyo Colorado at a point approximately two and a half miles downstream from the area impaired by low dissolved oxygen levels. The discharge does not occur within the affected area and therefore will not contribute to depressed dissolved oxygen levels within the impaired area of the segment. The pollutants of concern for dissolved oxygen impairment include oxygen demanding organic substances and ammonia nitrogen. Water quality models have predicted that the discharge of oxygen demanding constituents from this facility will have no adverse effect on instream dissolved oxygen. Waste load evaluation (WLE) recommendations are incorporated into permit limits for discharges into segments with completed WLEs. The Executive Director has determined that the discharge would be consistent and compatible with the WLE.

The draft permit has been revised to prohibit the discharge of wastewater during the months of March, April, and May. This will allow the facility to take advantage of the cooler months to reduce algae levels prior to discharge. Further, it will restrict the number of months in which the facility may discharge to nine months as is currently authorized in the existing permit. The draft permit will retain a three month period without discharge as intended by the previous prohibition. Therefore, the draft permit will not allow an increase in the volume of wastewater currently permitted to discharge to the Arroyo Colorado.

The Applicant has not requested to discharge domestic wastewater. Additionally, the Applicant operates an aquaculture facility, which is different from a domestic wastewater treatment facility, such as the Rancho Viejo Community Domestic Wastewater Treatment System. Since the characteristics of what is discharged from each facility differ, a comparison of a domestic wastewater treatment permit would not address issues related to this application.

Regarding the comment discussing the addition of new ponds, the Applicant has indicated that they have not added new ponds to the existing facility. However, regarding the comment discussing settling tanks, the Applicant has indicated that they do have a dedicated settling pond as well as using the facility drainage ditches for settling prior to discharge.

**COMMENT 10:**

Jack Gibson comments that the Applicant's request to discharge during January through March is based upon the cold weather helping to kill the algae, however it rarely gets below 55 degrees in the subtropical weather.

**RESPONSE 10:**

Temperature data available on the National Oceanic & Atmospheric Administration website has been obtained for the closest available monitoring station in Brownsville. Data for the months of December, January, and February indicate mean daily minimum temperatures of 52.5 °F, 50.9 °F, and 53.3 °F, respectively. However, the mean extreme minimums for these months are reported as 35.7 °F, 33.6 °F, and 37.2 °F. The Applicant proposes to take advantage of these rare events as their experience has shown a decrease in algal suspension during these colder months. The Executive Director supports this approach in lieu of the addition of flocculants or other water treatment chemicals to meet the effluent limitations. The discharge is required to meet the permitted effluent limitations regardless of the temperature conditions or manner of treatment.

**COMMENT 11:**

Mr. and Mrs. Gary Herridge, Paul Bergh, and Jack Gibson comment that allowing the permittee to monitor and report their own discharge is unacceptable and is equivalent to "the fox in the henhouse." Mr. Robert Collier, comments that the TCEQ has made no effort to monitor the shrimp farm discharge. Bud Koch, representing the Arroyo City Advisory Committee requests that the permit require the shrimp farms to hire an independent contractor to monitor the reporting with regards to wastewater discharges. Gene C. Yates also requests that the permit require the shrimp farms to hire an independent contractor to monitor wastewater discharges. Gary Herridge comments that the facility may be discharging at night and when it rains hard so they don't get caught, therefore monitoring by an independent agency is necessary.

**RESPONSE 11:**

The Applicant is required to conduct effluent sampling and reporting in accordance with 30 TAC §§ 319.4 - 319.12. A monthly effluent report, called a Discharge Monitoring Report (DMR) must be submitted each month for each discharge which is described by the permit whether or not a discharge is made for that month. DMRs are evaluated for compliance by TCEQ Enforcement Division personnel. Facility inspections are conducted by TCEQ Harlingen Regional Office personnel to ensure the Applicant is operating in compliance with the provisions of the wastewater discharge permit. Additionally, the Applicant is required to self report any noncompliance in accordance with the reporting requirements specified in the TPDES permit.

The Executive Director is authorized by statute to initiate an enforcement action based on information provided by a private individual (Tex. Water Code §7.0025; 30 Tex. Admin. Code §70.4). Agency protocols, procedures, and guidelines must be used when collecting and submitting information or evidence to ensure that the information or evidence is scientifically reliable and legally defensible. Protocols vary depending on the nature of the problem, for example, water quality sampling procedures are very different from nuisance odor evaluation. If a protocol has specific training requirements, training must be completed before submitting information based on it. If information is gathered in the form of physical sampling data, the analysis of that data must be completed by a laboratory that follows established protocols to produce scientifically reliable information. You may contact the TCEQ at 1-888-777-3186 to receive a list of laboratories or you have questions about sampling protocols and procedures.

TCEQ's jurisdiction is established by the Legislature and is limited to the issues set forth in Chapter 26 of the Texas Water Code. To implement this statutory mandate, TCEQ issues permits that must be consistent with applicable law. The Executive Director must consider the quality of the discharge and its effect on the quality of the receiving waters, but the Executive Director does not require a permittee to use independent contractors to provide monitoring services.

Permittees are subject to administrative, civil, and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act, the Texas Water Code, Chapters 26, 27, and 28, and Texas Health and Safety Code, Chapter 361. These violations include knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under the permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

TCEQ may be contacted to investigate whether a permit violation has occurred. Potential permit violations may be reported to TCEQ Region 15 Office in Harlingen at (956) 425-6010, or by calling the state-wide toll-free number at 1-888-777-3186. Citizen complaints may also be filed online at the following website:

<http://www.tceq.state.tx.us/enforcement/complaints/index.html>.

**COMMENT 12:**

Bob and Donna Swinnea comment that the discharge is responsible for surface film on boats.

**RESPONSE 12:**

Surface film (fouling) on boats is not unique to the Arroyo Colorado and may be due to numerous causes. Animal fouling occurs when organisms such as zebra mussels or barnacles attach themselves to the hull. Plant fouling occurs when weeds attach themselves to the hull around the waterline. Slime fouling occurs when algae gathers and blooms on the hull. Fouling is not uncommon on boats that sit static in the water for long periods of time. It is also known that algae growth is promoted by high nutrient containing fertilizers from agricultural runoff. It is probable that surface film on boats is not an uncommon occurrence within the Arroyo Colorado upstream of the discharge as well.

Discharges from aquaculture facilities may have elevated nutrient content. Therefore, the draft permit includes a requirement that the Applicant update its existing Best Management Practices Plan to minimize the discharge of nutrients from this facility. Additional nutrient controls are included in the draft permit in the form of effluent limitations for both total suspended solids and oxygen demanding constituents.

**COMMENT 13:**

Mr. Bond Cosby comments that the discharge is detrimental to contact recreation activities such as fishing and swimming. Hugh R. and Linda Koch comment that they are fearful of disease, foam, and distasteful effluent and therefore are unable to participate in contact recreation. Gene C. Yates comments that he is appalled when thinking of his family participation in contact recreation activities in the proximity of the discharge. Bob and Donna Swinnea comment that they are concerned that their grandchildren use the Arroyo Colorado for recreation. James Guffey comments that it is disheartening to him when his grandchildren cannot fish and enjoy the Arroyo due to the discharge.

**RESPONSE 13:**

The Executive Director has determined that the draft permit is protective of the environment, water quality, and human health. The draft permit includes effluent limitations and monitoring requirements designed to ensure that the treated effluent meets TSWQS for the protection of surface water and human health according to TCEQ rules and policies. Additionally, the draft permit is designed to protect and maintain the existing uses of the receiving waters.

Contact recreation is one of the designated uses of the Arroyo Colorado. Waterbodies are designated for contact recreation use unless elevated concentrations of indicator bacteria frequently occur due to sources of pollution which cannot be reasonably controlled by existing regulations or if recreational activities are considered unsafe for other reasons such as ship or barge traffic. A designation of contact recreation is not a guarantee that the water is completely free of disease-causing organisms.

Indicator bacteria, although not generally pathogenic, are used to infer the presence of pathogens and to predict health risks due to ingestion or contact with water. Indicator bacteria are used since they are commonly found in contaminated water that also contains pathogens, they persist in the aquatic environment as long as pathogens, and unlike most human pathogens they can be easily detected in aquatic environments. The criteria for contact recreation are based on these indicator bacteria. Criteria are expressed as the number of "colony forming units" of bacteria per 100 milliliters (ml) of water. Even where the concentration of indicator bacteria is less than the criteria for contact recreation, there is still some risk of contracting waterborne diseases.

Pathogens that may impair human health or that are harmful to aquatic life may possibly be present in aquaculture discharges. These pathogens can be introduced within animal feed, other animals on the property, and from within the source water. During the development of the federal regulations at 40 CFR 451, the EPA concluded that in the majority of cases, levels of human pathogens within aquaculture effluents are likely to be minimal. Transfer of animal viral pathogens to humans is highly unlikely because most viruses are species-specific. Aquaculture facilities are not considered a significant source of pathogens that adversely affect human health. Aquaculture facilities culture cold-blooded animals such as shrimp and fish that are unlikely to harbor or foster pathogens that would adversely affect warm-blooded animals like humans by causing disease. The EPA therefore did not require specific effluent limitations for indicator bacteria.

TSWQS require that the draft permit provisions preclude adverse toxic effects on human health resulting from recreational activities involving a significant risk of ingestion of water, including wading by children, swimming, water skiing, etc. in order to maintain the designated contact recreation use. The discharge of sanitary sewage is prohibited by this permit. Domestic wastewater at the facility is routed to a septic tank/drainfield system. Therefore, there is no sanitary sewage component to the wastewater discharge authorized by the draft permit.

**COMMENT 14:**

Tom Aycock comments that the discharge is responsible for brown tides which severely affected the sea grasses in the Laguna Madre as well as almost destroying the sports fishing industry.

**RESPONSE 14:**

The Laguna Madre is considered to be the most productive bay system in Texas supporting commercially valuable species such as blue crab, redfish, and shrimp. Seagrass beds are the foundation of the food chain providing habitat to the organisms that the fish feed upon. Seagrass beds also provide vital spawning and nursery habitat for fish and shrimp. Brown tides are known to increase turbidity and may destroy seagrasses by blocking out the sunlight needed to survive. The Executive Director concurs that detrimental impacts to seagrass beds could negatively affect tourism and recreational fishing in the Laguna Madre.

However, researchers have not yet determined the causes of the brown tide phenomenon. *Aureoumbra lagunensis*, the algae responsible for brown tides, is thought to be present in the Laguna at all times in varying concentrations. It is believed that multiple factors have to be present simultaneously to initiate the algae to bloom resulting in a brown tide. The TCEQ has found no data supporting a correlation between brown tides and the discharge of aquaculture effluent.

**COMMENT 15:**

Hugh R. and Linda Koch comment that they are concerned a hurricane that damages the facility will impact their home, possessions, real estate business, and property rentals. They also comment that maintaining the levees around the ponds and lowering the water in the ponds prior to an impending hurricane is mandatory.

**RESPONSE 15:**

The draft permit does not limit the ability of a nearby landowner to seek relief from a court in response to activities that may or do interfere with the use and enjoyment of their property. If the Applicant's activities create a nuisance condition, TCEQ may be contacted to investigate whether a permit violation has occurred. Potential permit violations may be reported to TCEQ Region 4 Office in Dallas at (817) 588-5800, or by calling the state-wide toll-free number at 1-888-777-3186. Citizen complaints may also be filed online at the following website:

<http://www.tceq.state.tx.us/enforcement/complaints/index.html>.

The draft permit includes the following new provision related to the development and implementation of an emergency plan as follows:

In the event that the facility appears in imminent danger of overflow, flooding, or similar conditions that could result in the release of exotic species that are regulated by the Texas Parks & Wildlife Department or that would result in the violation of a quarantine condition imposed by TCEQ or the Texas Parks & Wildlife Department, the permittee may discharge effluent in excess of the permitted flow rates, but only to the extent necessary to comply with an Emergency Plan that is approved by the Texas Parks & Wildlife Department. Effluent limitations, discharge flow limitations, and other effluent monitoring requirements of this permit shall be set aside during this activity. The permittee should notify the TCEQ Region 15 office at least 48 hours prior to initiating any action under an Emergency Plan in response to an emergency event, such as landfall of a hurricane. In any case, the permittee shall notify the TCEQ Region 15 office as soon as is practicable following initiation of the Emergency Plan. The permittee shall control discharges relating to initiation of the Emergency Plan in the most environmentally sound manner that is practicable. Within 30 days following initiation of the Emergency Plan, the permittee shall submit a written report to the TCEQ Region 15 office that delineates the cause for initiation of the plan, actions taken to avoid or negate impacts of the discharge to the receiving stream, volumes of wastewater discharged and the dates that discharges occurred, and a general summary of receiving stream conditions at the time of the discharge. It shall remain the burden of the permittee to show cause that the discharges were necessary and that conditions required initiation of the Emergency Plan.

**COMMENT 16:**

Hugh R. and Linda Koch comment that the discharge will have a negative economic impact on their business including rental apartments, covered boat lifts, RV hook-ups in this recreational area.

**RESPONSE 16:**

TCEQ's jurisdiction is established by the Legislature and is limited to the issues set forth in Chapter 26 of the Texas Water Code. To implement this statutory mandate, TCEQ issues permits that must be consistent with applicable law. The Executive Director must consider the quality of the discharge and its effect on the quality of the receiving waters, but the Executive Director does not consider the economic impact a discharge may have on businesses during the permitting process.

**COMMENT 17:**

Hugh R. and Linda Koch comment that the smell is sickening and flies occur during the harvest season. Donald B. Brown, Sr. comments regarding the smell of the facility. Tom Traylor comments that the discharge will impact the quiet enjoyment of his property. Bob and Donna Swinnea comment that smell is not pleasant occasionally. Paul Bergh comments that resident concerns have not been adequately addressed by the farm and the TCEQ, namely the flies and the smell, and both are pretty bad at times during the year and need to be addressed.

**RESPONSE 17:**

TSWQS prohibit the discharge from resulting in offensive odors or otherwise interfering with the reasonable use of the water in the state. BMPs are included in the draft TPDES permit to mitigate the occurrence of offensive odors and flies. These practices require the routine removal of, and the proper disposal of, dead aquatic species from ponds as is required to prevent contamination of waters in the state and to prevent a nuisance or public health hazard.

The issuance of the wastewater permit does not authorize any invasion of personal rights or any violation of federal, state, or local laws or regulations. The draft permit does not limit the ability of a nearby landowner to seek relief from a court in response to activities that may or do interfere with the use and enjoyment of their property. If the Applicant's activities create a nuisance condition, TCEQ may be contacted to investigate whether a permit violation has occurred. Potential permit violations may be reported to TCEQ Region 15 Office in Harlingen at (956) 425-6010, or by calling the state-wide toll-free number at 1-888-777-3186. Citizen complaints may also be filed online at the following website:

<http://www.tceq.state.tx.us/enforcement/complaints/index.html>.

Guidance for documenting and reporting an odor complaint is also available at:

[http://www.tceq.state.tx.us/compliance/complaints/protocols/odor\\_protodef.html](http://www.tceq.state.tx.us/compliance/complaints/protocols/odor_protodef.html)

**COMMENT 18:**

Tom Traylor comments that the discharge will impact the value of his property.

**RESPONSE 18:**

TCEQ's jurisdiction is established by the Legislature and is limited to the issues set forth in Chapter 26 of the Texas Water Code. To implement this statutory mandate, TCEQ issues permits that must be consistent with applicable law. The Executive Director must consider the quality of the discharge and its effect on the quality of the receiving waters, but the Executive Director cannot consider property values in determining whether to issue a permit.

**COMMENT 19:**

Donald Brown, Sr. comments that the facility discharge introduces non-native species and silver eels into the Arroyo Colorado.

**RESPONSE 19:**

The TCEQ, TPWD, and the TDA have adopted a Memorandum of Understanding (30 TAC § 7.013) which requires that the agencies work cooperatively in the regulation of aquaculture activities. This cooperation works to mitigate any potential impacts due to the escape of exotic species, including out-competing native species for food and/or habitat, hybridization with native species, transfer of diseases, and destruction of habitat.

The TPWD is included in the technical review of the permit application and draft permit comment process to assist in the determination of whether the proposed discharges will adversely affect terrestrial and aquatic life or waters in the state. TPWD and TDA require aquaculture facilities to prove that they possess or have applied for the appropriate TCEQ disposal authorizations if they will discharge wastewater into or adjacent to waters in the state prior to issuing a TPWD exotic species permit or TDA aquaculture license. Additionally, TPWD biologists retain the authority to quarantine diseased exotic shellfish and require aquaculture operators to have their exotic shellfish certified as disease-free by a TPWD department-approved disease specialist.

The Applicant has indicated that they do not culture or release silver eels from this facility. The existing and draft permits prohibit the raising of eels at this facility. Additionally, the Applicant is required to provide notice to the TCEQ's Wastewater Permitting Section and the TPWD prior to a change in, or addition to, the species of organism cultivated at this facility. Notification shall include sufficient information regarding this change in process such that the TCEQ may determine if amendment of the permit is required.

Additionally, the facility is equipped with screens to prevent the introduction of non-native species at each individual pond. The TPWD requires that three screens are in place at all times and that the mesh size of these screens fits the size of the animal being cultured. All water leaving any pond must pass through either one of four eight-inch drain pipes which are used for water exchange and to lower the water level in preparation for harvest, or through the 24-inch harvest drain pipe. All of these pipes flow into a concrete harvest basin, which is located within the pond. Water exits the harvest basin and enters the drain ditch through a 24-inch drainpipe that passes under the pond levee and into the drainage ditch system. All 8 inch pipes are screened inside the pond by plastic mesh attached over a drain manifold at the end of the pipe and by a smaller mesh screen sock attached over the plastic mesh. The 8 inch pipes are screened again with a screen sock attached to the discharge end of the 8 inch pipes where they discharge inside the concrete harvest basin. All water leaving the harvest basin passes through a heavy steel screen, which is attached over the exit to the 24-inch drainpipe. During harvest, a steel mesh harvest cage is attached to the inside wall of the harvest basin over the opening where the 24-inch harvest pipe enters the basin from the pond. All shrimp are captured by this cage and pumped out of the harvest basin to the harvest trailer. Most of the pond water is separated from the shrimp at the harvest cage and passes out of the harvest basin via the 24-inch drainpipe. This water is screened again by the steel exit screen at the back of the basin and through two mesh socks, which are attached to the discharge end of the 24-inch drainpipe during harvest. Some water is pumped with the shrimp from the harvest cage to the harvest trailer. This water is screened at the "dewatering screen" on the harvest machine and is released back to the pond or to the drainage ditch system through an 8-inch discharge hose. Two mesh socks are attached to the end of the harvest trailer discharge hose for screening of the water prior to entering the drainage ditch system or return to the pond.

As part of the cooperative regulatory effort between the agencies, the following new language has been proposed in the TPDES draft permit to require the facility to comply with the TPWD requirements for the control of exotic shrimp diseases and to prevent the release of exotic shrimp species:

1. In the event that the facility appears in imminent danger of overflow, flooding, or similar conditions that could result in the release of exotic species that are regulated by the Texas Parks & Wildlife Department or that would result in the violation of a quarantine condition imposed by TCEQ or the Texas Parks & Wildlife Department, the permittee may discharge effluent in excess of the permitted flow rates, but only to the extent necessary to comply with an Emergency Plan that is approved by the Texas Parks & Wildlife Department. Effluent limitations, discharge flow limitations, and other effluent monitoring requirements of this permit shall be set aside during this activity. The permittee should notify the TCEQ Region 15 office at least 48 hours prior to initiating any action under an Emergency Plan in response to an emergency event, such as landfall of a hurricane. In any case, the permittee shall notify the TCEQ Region 15 office as soon as is practicable following initiation of the Emergency Plan. The permittee shall control discharges relating to initiation of the Emergency Plan in the most environmentally sound

manner that is practicable. Within 30 days following initiation of the Emergency Plan, the permittee shall submit a written report to the TCEQ Region 15 office that delineates the cause for initiation of the plan, actions taken to avoid or negate impacts of the discharge to the receiving stream, volumes of wastewater discharged and the dates that discharges occurred, and a general summary of receiving stream conditions at the time of the discharge. It shall remain the burden of the permittee to show cause that the discharges were necessary and that conditions required initiation of the Emergency Plan.

2. In the event of observable mortalities of aquatic exotic species or other manifestation of disease occurring at the facility, the permittee shall immediately cease any discharge, shall immediately report these findings to the Texas Parks & Wildlife Department (TPWD), the TCEQ regional office and to the TCEQ's Water Quality Division, Industrial Permits Team (MC-148), and shall not resume discharging until agreed to in writing by TPWD. If permittee is able to demonstrate to the satisfaction of TPWD that the mortalities are caused by some other factor other than disease, the permittee may resume discharges upon receiving a written acknowledgment from TPWD. If permittee is able to demonstrate to the satisfaction of TPWD that the mortalities are attributable to a known disease, TPWD will notify the permittee as to what control and/or mitigation measures it shall undertake and whether it will be allowed to resume discharges. In this regard, control and/or mitigation measures required for permittee will be the same as those recommended for other farms under similar circumstances. If the cause of mortalities is undetermined, or determined to be an unfamiliar disease, the cessation of discharge shall continue until TPWD is able to obtain the information necessary to determine an appropriate response. In such cases, permittee shall make every reasonable effort to ensure that there is no transport of cultured aquatic species or parts thereof out of the infected pond by any means. If TPWD or another agency with authority to regulate diseases of aquatic exotic species from the standpoint of preventing impacts to wild native species should adopt laws, rules or a written disease control policy which conflicts with these requirements, such laws, rules or written policy shall supersede these requirements.

**COMMENT 20:**

Jack Gibson asks to know what happens to the sludge from the bottom of the ponds.

**RESPONSE 20:**

The Applicant has stated that pond sludge is not removed from the ponds. Following discharge, the remaining solids within the ponds and ditches are dried, disced, and incorporated into the pond levees. Any solid waste, as generated by the Applicant during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC § 335, relating to Industrial Solid Waste Management. The Applicant is required to keep management records for all sludge or other waste removed from any wastewater treatment process. These records must fulfill all applicable requirements of 30 TAC Chapter 335 and must include the volume of waste and dates generated from treatment process; volume of waste disposed of on-site or shipped off-site; dates of disposal; identity of hauler or transporter; location of disposal site; and the method of final disposal. The records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

Removal of pond bottom sludges from production ponds or wastewater management ponds must be conducted during favorable wind conditions that carry odors away from nearby receptors such as residences, businesses, and public buildings. At no time may emissions from the activity create a nuisance.

**COMMENT 21:**

Jack Gibson comments that he wants to know if the two other hypersaline bays in the world are safe.

**RESPONSE 21:**

The Executive Director acknowledges Mr. Gibson's concern for the unique biodiversity provided by hypersaline habitats and the sensitivity of the ecosystems within. However, the Executive Director does not consider other hypersaline bays that are not addressed in this application.

**COMMENT 22:**

Donald B. Brown, Sr. comments that within the last 24 months a breakage in shrimp pond operations caused private property to be flooded and rendered unsafe for a while.

**RESPONSE 22:**

According to the Applicant and compliance file documentation, during the late 1990's, heavy rains flooded the property to the south of the facility, storm water breached a levee that separated the two properties and ran into the Applicant's drainage ditch causing it to fill up and overflow. The combined storm water and wastewater flowed over into the property of the Applicant's neighbor to the east. The Applicant pumped the water off of their neighbors' property, and returned it to their ponds prior to discharging it at the end of the year. No wastewater was discharged into the Arroyo Colorado during this event.

After this event, the Applicant strengthened the levee that separates the facility from the property to the south. In 2002 heavy rains from a hurricane flooded the property to the south; however, this time the water went around the levee and flooded the property to the east first and then flooded into the drainage ditch system. The Applicant provided oral and written notification to the TCEQ Region 15 office on November 4, 2002 prior to initiation of their emergency discharge.

The draft permit does not limit the ability of a nearby landowner to seek relief from a court in response to activities that may or do interfere with the use and enjoyment of their property. If the Applicant's activities create a nuisance condition, TCEQ may be contacted to investigate whether a permit violation has occurred. Potential permit violations may be reported to TCEQ Region 15 Office in Harlingen at (956) 425-6010, or by calling the state-wide toll-free number at 1-888-777-3186. Citizen complaints may also be filed online at the following website:

<http://www.tceq.state.tx.us/enforcement/complaints/index.html>.

**COMMENT 23:**

Donald B. Brown, Sr. comments that many of the persons who participate in this operation do not live year round in the proximity of the discharge.

**RESPONSE 23:**

The draft permit does not require that the persons participating in the operation live in the proximity of the discharge. This is outside of the scope of the TCEQ permitting program.

**COMMENT 24:**

Paul Bergh suggests the situation be improved by relocating discharge points 001 and 002 to east of the farms and channel the discharge to an as-yet-to-be-constructed wetlands within in area of the Parker Lake. Paul Bergh further comments that the farm's pumping facility conserves the pump needed to water the wetlands and the discharge waters from the farms could piggy-back on the supply water. Paul Bergh comments that this would provide additional valuable habitats with refuge. Paul Bergh comments that it would remove the farm discharge from in front of the private property, improve the farms productivity and market competitiveness, and provide valuable habitat wildlife. Paul Bergh comments that there are probably grant monies to be procured to fund the project.

**RESPONSE 24:**

TCEQ's jurisdiction is established by the Legislature and is limited to the issues set forth in Chapter 26 of the Texas Water Code. To implement this statutory mandate, TCEQ issues permits that must be consistent with applicable law. The Executive Director must consider the quality of the discharge and its effect on the quality of the receiving waters, but the Executive Director does not require an applicant to consider alternative discharge points if the options requested by the applicant are otherwise consistent with applicable rules and regulations. Should the Applicant decide to pursue a different point of discharge, the Applicant would be required to submit a major amendment application to authorize a new discharge location. The discharge of wastewater into or adjacent to water in the state at a non-permitted location would be a violation of the permit and subject the Applicant to potential enforcement action.

**COMMENT 25:**

Tom Aycock, Hugh R. and Linda Koch, James Green, Herbert Wagoner, and Gene C. Yates request a contested case hearing.

**RESPONSE 25:**

The Executive Director acknowledges these requests for a contested case hearing. Upon review of the written correspondence in the TCEQ Office of the Chief Clerk, these written responses are also considered to be hearing requests. Along with this Response, you will find additional instructions included on how to request a contested case hearing or reconsideration of the Executive Director's decision on the application. A contested case hearing is an evidentiary proceeding held before an administrative law judge, similar to a civil trial in a state district court.

- In response to public comment, the Executive Director made the following changes to the draft permit:

1. The prohibition of discharge requirement, found in Aquaculture Requirements, Item No. 2 in the draft permit has been changed to:

There shall be no discharge of process wastewater for the period of March 1 through May 31 of each year. Discharges shall be limited to storm water runoff during this period. Effluent reporting requirements contained in the permit are suspended during this period for all parameters except flow. Flow measurement frequency shall be 1/day, when discharging, and the sample type shall be an estimate during this defined period.

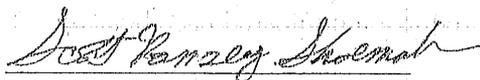
The above change amended the draft permit where the prohibition of discharge was removed from the existing permit.

Respectfully submitted,

Texas Commission on  
Environmental Quality

Glenn Shankle  
Executive Director

Robert Martinez, Director  
Environmental Law Division



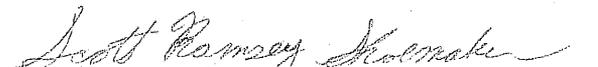
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*Representing the Executive Director of the  
Texas Commission on  
Environmental Quality*

CERTIFICATE OF SERVICE

I hereby certify that on February 4, 2008, the original of the "Executive Director's Response to Comments" on Taiwan Shrimp Village Association Inc. and Arroyo Aquaculture Association, Inc., application for TPDES Permit No. WQ0003596000 was filed with the Chief Clerk, Texas Commission on Environmental Quality, Austin, Texas.

  
Scott Ramsey Shoemaker, Staff Attorney  
Environmental Law Division  
Texas Commission on Environmental Quality

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