



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

OFFICE OF THE  
REGIONAL ADMINISTRATOR

APR 14 2006

Mr. Robert E. Perdue  
Executive Director  
California Regional Water Quality Control Board  
Colorado River Basin Region  
73-720 Fred Waring Drive, Suite 100  
Palm Desert, California 92260

RE: Approval of the Use of Freshwater Aquatic Life Criteria in Proposed Kent  
SeaTech NPDES Permit, Order No. R7-2006-0020, NPDES No. CA7000010

Dear Mr. Perdue:

The U.S. Environmental Protection Agency ("EPA") has reviewed the *Bioassessment of Kent SeaTech Aquaculture facility discharge, Coachella Valley Storm Water Channel* (the "Bioassessment") for consideration of the use of alternative freshwater aquatic life criteria in 40 CFR 131.38 for a portion of the Coachella Valley Storm Water Channel ("CVSWC"). On February 17, 2006, the Kent SeaTech Corp. submitted the Bioassessment to EPA and requested that freshwater criteria be applied to their wastewater discharge into the CVSWC. On March 28, 2006, Kent SeaTech Corp. clarified that its request applied to the receiving waters of the CVSWC within 200 meters upstream and downstream of the wastewater discharge point from its facility in Mecca, California. Kent SeaTech Corp. is currently discharging into the CVSWC under the National Pollutant Discharge Elimination System ("NPDES"), Order No. 01-003, NPDES Permit No. CA7000010.

In accordance with 40 CFR 131.38, EPA is proposing to approve the use of freshwater aquatic life criteria only in the portion of the CVSWC specified in Kent SeaTech Corp.'s February 17th and March 28th letters (copies attached), as the receiving waters for the wastewater discharge from the Kent SeaTech Corp. facility.

**Scope of EPA's Tentative Approval**

Today's tentative approval applies to the use of alternative freshwater criteria on a site-specific basis that is subject to EPA's approval authority under 40 CFR 131.38(c)(3). Based on water quality data collected by the Coachella Valley Water District, the average salinity of the channel is 1.2 parts per thousand or ppt. For waters with salinities between 1 and 10 ppt, such as the portion of the CVSWC defined herein, 40 CFR 131.38(c)(3)

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provides that such waters be addressed as follows:

"For waters in which the salinity is between 1 and 10 parts per thousand as defined in paragraphs c(3)(i) and (ii), the applicable criteria are the more stringent of the freshwater or saltwater criteria. However, the [EPA] Regional Administrator may approve the use of the alternative freshwater or saltwater criteria if scientifically defensible information and data demonstrate that on a site-specific basis the biology of the water body is dominated by freshwater aquatic life and that freshwater criteria are more appropriate; or conversely, the biology of the water body is dominated by saltwater aquatic life and that saltwater criteria are more appropriate. Before approving any change, EPA will publish for public comment document proposing the change."

Approval to use freshwater criteria only in the portion of the CVSWC, defined as 200 meters upstream and downstream from the Kent SeaTech Corp. facility's wastewater discharge point into the CVSWC, would not apply to the CVSWC in its entirety, but to the portion of the CVSWC that is the subject of today's tentative approval.

#### **Discussion and EPA's Tentative Approval**

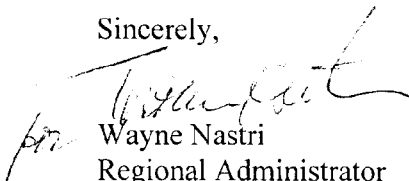
According to the 2002 Water Quality Control Plan for the Colorado River Basin, as amended, the CVSWC is an extension of the Whitewater River and primarily serves as a drainage way for irrigation return flows, treated community wastewater, and storm water runoff. Since water quality data indicate salinity greater than 1 ppt in the channel, Kent SeaTech Corp. conducted a site-specific assessment of the biology of the CVSWC surrounding the discharge location, pursuant to 40 CFR 131.38(c)(3), to determine whether the species observed are more typical of a freshwater or saltwater environment. The assessment was conducted at and within 200 meters upstream and downstream of the discharge location into the CVSWC. According to the Bioassessment, Fremont cottonwood (*Populus fremontii*) and Arroyo willow (*Salix lasiolepis*) are the predominate vegetation along the shoreline of the channel. These plant species are characteristic of a Sonoran cottonwood-willow riparian forest in the desert southwest, including in other areas of Coachella Valley and nearby canyons. A Sonoran cottonwood-willow riparian forest is a broad-leaved streamside forest dominated by Fremont cottonwoods with dense understories of willow species that occur along perennial desert rivers. The Bioassessment found that the CVSWC consists of sensitive natural communities that include Sonoran cottonwood-willow riparian forests. The Bioassessment also identified several species of freshwater aquatic invertebrates found throughout the assessment area including caddisflies, dragonflies, snails, clam shrimp, and scuds. No differences in the plant species observed were detected between the discharge area and the upstream and downstream locations.

Based on the Bioassessment, EPA believes that the portion of the CVSWC, as specified herein, is dominated by aquatic life and riparian vegetation that are characteristic of a freshwater environment. Therefore, EPA believes that the freshwater criteria for all pollutants are appropriate. However, prior to a final decision, in accordance with 40 CFR 131.38(c)(3), EPA shall give public notice that it is proposing to

approve the use of alternative freshwater aquatic life criteria for this portion of the CVSWC. EPA shall jointly public notice this letter with the Colorado River Basin Regional Water Quality Control Board's public notice for the proposed Kent SeaTech Corp. NPDES permit, Order No. R7-2006-0020, NPDES No. CA7000010. EPA will take into consideration and respond to comments received by EPA during the public comment period.

If there are any questions regarding our approval action, please contact Ms. Sara Greiner, of the CWA Standards and Permits Office, at (415) 972-3042. As always, we look forward to continued cooperation with the Colorado River Basin Regional Water Quality Control Board in achieving our mutual environmental goals.

Sincerely,



Wayne Natri  
Regional Administrator

Attachments (2)

Cc: John Carmona, CA RWQCB, RB7 (w/o Attachments)  
James M. Carlberg, Kent SeaTech Corp. (w/o Attachments)  
Michael J. Massingill, Kent SeaTech Corp. (w/o Attachments)

# KENT

17750 Hillside Avenue  
San Diego, CA 92128  
Tel: (619) 441-7500  
Fax: (619) 441-7501

Sara Greiner  
Environmental Protection Agency, WTR-5  
75 Hawthorne Street  
San Francisco, CA 94105  
Phone: (415) 972-3042

February 17, 2006

Dear Ms. Greiner:

Subject: Draft Waste Discharge Order No. R7-2006-0020  
NPDES NO. CA7000010

In accordance to a request from Mr. Jose Cortez of the California Regional Water Quality Control Board, Region 7, we have enclosed for your consideration a biological assessment for the receiving water referenced in the subject order. This assessment includes a species composition list indicating the biology of the receiving water is composed exclusively of freshwater aquatic life.

Consistent with the EPA's definition of "estuaries", the receiving water is classified as an inland surface water, not an estuary. Furthermore, it does not contain a brackish water transition zone of an estuary and it is not composed of a mix of freshwater and saltwater species. The receiving water has no marine, estuarine or saltwater designated beneficial uses.

Our discharge into the Coachella Valley Stormwater Channel (CVSWC) is only a short distance downstream from the Coachella Valley Water District (CVWD) WRP 4 discharge location. Both locations have very similar receiving water conditions, riparian habitat, and exclusively freshwater aquatic life.

We were informed today by CVWD that your agency has indicated that it agrees that the CVSWC is freshwater in the segment receiving effluent from WRP 4, and that a final determination regarding the use of freshwater criteria will be made following the required public comment period.

**CALIFORNIA FARMED**


We believe that there are no significant differences between the receiving water environment of our discharge location and that of CVWD's WRP 4 location.


In both cases, the absence of an estuarine transition zone, saltwater ecosystem or such designated uses of the receiving waters precludes the application of saltwater criteria to these waters.

On the merits of our receiving water conditions, and in consideration of your tentative prior ruling for the very similar CVWD situation, we respectfully request a letter from the Regional Administrator confirming approval to use freshwater criteria for our receiving water.

If you have any questions, please do not hesitate to contact us.

Sincerely,

  
Michael J. Massingill  
Executive Vice President

  
James M. Carlberg  
President

Enclosures:

- Bioassessment Study
- Photo sheet
- Location map

Cc: Jose Cortez, RWQCB Region 7

Bioassessment of Kent SeaTech Aquaculture facility discharge,  
Coachella Valley Storm Water Channel  
Dr. Monica Swartz, Biologist, Coachella Valley Water District

**Objective**

Conduct a rapid assessment of aquatic and shore organisms in the Coachella Valley Storm Water Channel up and down stream from, and at the discharge from Kent SeaTech's Aquaculture facility, and give an expert biological opinion to enable classification of the component biota as members of a freshwater, saltwater, or brackish/estuarine community.

**Procedures**

On February 8, 2006, at the request of Michael Massingill of Kent SeaTech Corp., I visited the Coachella Valley Storm Water Channel to conduct a bioassessment in the vicinity of the discharge from the aquaculture facility. I evaluated sites up and down stream of the discharges as well as where the effluent discharges emptied into the Storm Water Channel. Beginning at the downstream sample site, I waded upstream, sampling invertebrates with a kick net and by visual examination of surfaces. Invertebrates were identified to family, vertebrates and plants to species, by visual and audio observation. Though multiple visits in different seasons would document species with differential detectability, a single visit was deemed appropriate to accomplish the objective, though samples in seasons with higher productivity would detect more species.

Attached are both a location map and a photo sheet of the sample sites.

**Findings**

The Coachella Valley Storm Water Channel is typical of freshwater streams in the arid southwest and is categorized as Sonoran Cottonwood-Willow Riparian Forest in the Coachella Valley Multiple Species and Natural Community Conservation Plan. The National Wetlands Inventory program classifies it as a Palustrine shrub-scrub wetland dominated by Facultative Wetland (FACW) plants. The Manual of California Vegetation classifies this as an Arroyo willow or Fremont Cottonwood series under their freshwater floodplain wetland criteria.

The Channel was scoured by strong flood flows during the previous winter, so little vegetation in this part of the Channel is older than one year. The substrate is largely sandy with sapling trees (Cottonwood, Willows, and invasive Saltcedar) along the banks. Vegetation beside the watercourse is dominated by Sedges and Cattails, with arrowweed, pickleweed, common reed, tree tobacco, saltbush, saltgrass and invasive iceplant higher on the banks. No differences in vegetation above or below discharge sites were discerned beyond what is determined by steepness of slope. Birds observed in the vegetation were those typical of Riparian areas and reedbeds of this region (Common Snipe, Cliff Swallow, Black Phoebe, Marsh Wren, Common Yellowthroat and Red-winged Blackbird). Great Egret and Green Heron were observed fishing in the Channel between discharge sites. Sandy areas surrounding the Channel have conspicuous tracks from raccoons, rabbits, ground squirrels, coyotes, and feral dogs.

The Channel had swift flowing water up to 10 meters across and ranging from very shallow to one meter deep, and with fairly high turbidity at all sample sites. No fish were seen because of high turbidity and swift flow at this site and time, but fishing birds seen slightly downstream indicated fish were present and visible. Fish commonly

seen at this site are small poecilids with occasional large carp (all introduced species, see attached species list).

The Channel substrate was entirely fine sand with a patchy surface layer of fine silt below the northern-most discharge site. Without stable surfaces, invertebrate diversity is low and concentrated on vegetation surfaces. Cattail stems under water were covered in caddisfly larval casings. Inside decaying cattail stems, *Physa* snails were found laying eggs at all sites. A small leech was found inside a cattail stem downstream of the southern-most discharge site. In a fish-free pool separated from the main course, upstream from the discharge; mosquito larvae, *Physa* snails, Ostracods and Gammarid amphipods were active beneath algal mats. At that site, submerged water plants contained midge larvae, nematodes, and damselfly larvae.

Attached is a list of organisms found at the sample sites.

### **Conclusion**

Notably, none of the species found in saltwater ecosystems including those found a short distance downstream in the Salton Sea were present in the Storm Water Channel above or below the effluent discharge (dominant Salton Sea organisms include the barnacle- *Balanus amphrite*, pileworm- *Neanthes succinea* and brackish water snail- *Thiara granifera*). The Cottonwood and Willow trees present in the Storm Water Channel are notoriously sensitive to saltwater. A previous experimental revegetation study in the watershed found that 1,200 ppm is the threshold salinity for Cottonwood/Willow establishment and higher salinity increases mortality and decreases plant height and biomass (Anderson and Ohmart, 1985, in *The Restoration of Rivers and Streams: Theories and Experience*). The presence of aquatic insects, other freshwater invertebrates, and riparian vegetation indicate that the Coachella Valley Storm Water Channel clearly supports a freshwater ecosystem at the Kent SeaTech Aquaculture facility discharge site.

These sample data demonstrate that this site contains only freshwater aquatic life. Though it is impossible to prove the absence of saltwater organisms, the extensive freshwater ecology observed and the historical state and federal classifications of this site lead me to assess that the area surrounding the effluent discharge in the Coachella Valley Storm Water Channel is and always has been classified a freshwater ecosystem.

List of organisms found on February 8, 2006 in the Coachella Valley Storm Water Channel above, below and at the discharges from Kent SeaTech's Aquaculture facility. Invertebrates are mostly identified only to family since further detail does not provide additional information for the purposes of this document.

Aquatic Animals

Nematoda - roundworms

Annelida

Hirudinea - leeches

Mollusca

Gastropoda - snails

Limnophila

Physidae

Arthropoda

Crustacea

Amphipoda - scuds

Gammaridae

Ostracoda - clam shrimp

Insecta

Odonata - dragonflys

Coenagrionidae

Libellulidae

Trichoptera - caddisflys

Hydropsychidae

Diptera - midges, mosquitos

Chironomidae

Simuliidae

Culicidae

Chordata

Osteichthyes

Cypriniformes

Cyprinidae

*Cyprinus carpio*

Cyprinodontiformes

Poeciliidae

*Gambusia affinis*

*Poecilia latipinna*

*Poecilia mexicana*

Perciformes

Cichlidae

*Tilapia* sp.

*Carpobrotus* sp. - Iceplant

*Allenrolfea occidentalis* - pickleweed

*Atriplex canescens* - four-winged saltbush

*Nicotiana glauca* - tree tobacco

*Scirpus* spp. - Bulrush

*Typha domingensis* - Cattails

*Distichlis spicata* - saltgrass

*Phragmites communis* - Common reed

Common Plants

*Tamarix ramulossima* - Saltcedar

*Salix lasiolepis* - Arroyo willow

*Populus fremontii* - Cottonwood

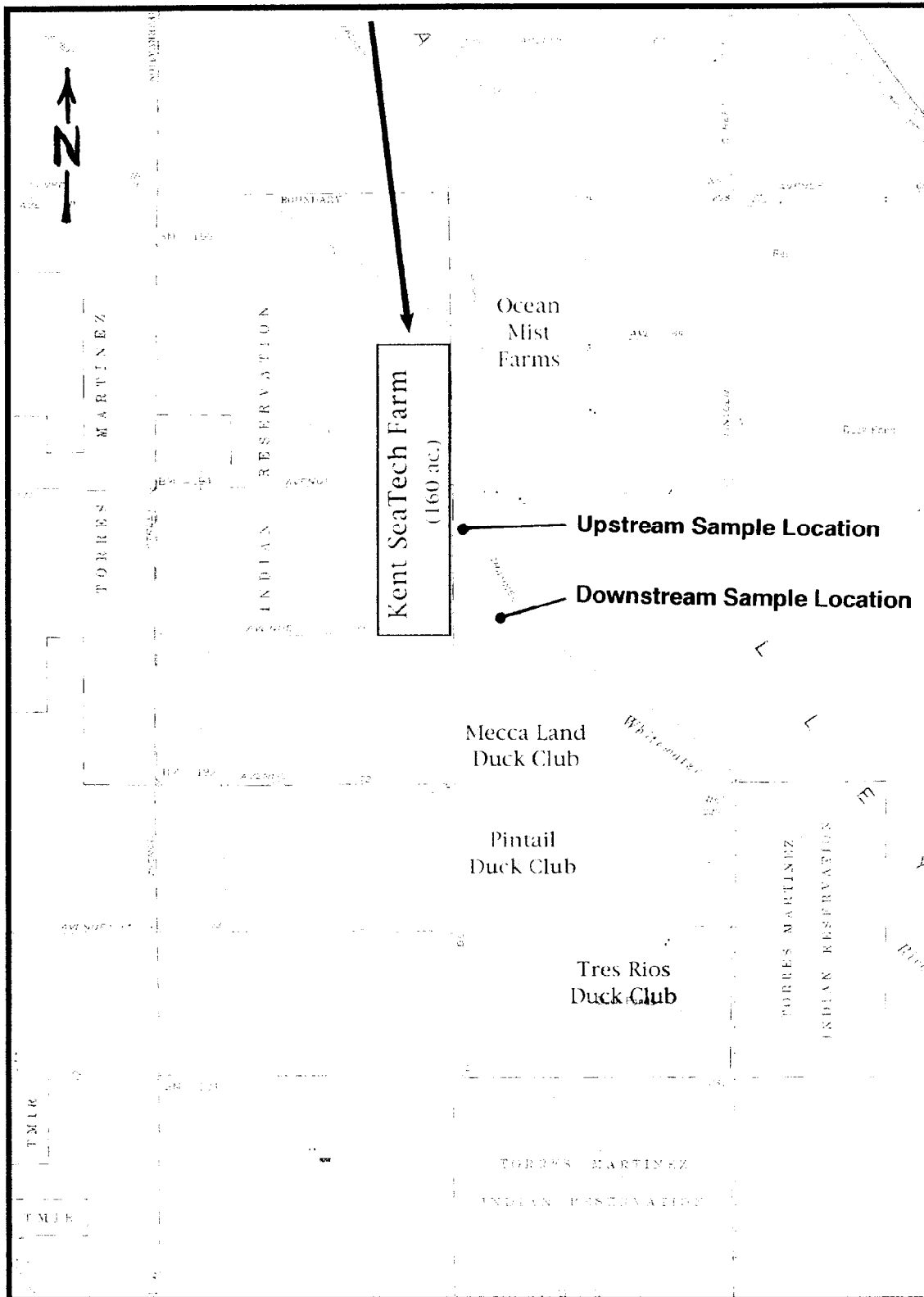
*Pluchea sericea* - Arrowweed

*Baccharis salicifolia* - Mulefat



# Kent SeaTech Fish Farm

E1/2 of the SE1/4 of Section 24 & E1/2 of the NE1/4 of Section 25  
T7S, R8E, San Bernadino Base and Meridian



U.S.G.S Mecca Quadrangle, 7.5 Minute Series Map

**Photos of Coachella Valley Stormwater Channel at Kent SeaTech's Upstream (north) & Downstream (south) Locations**

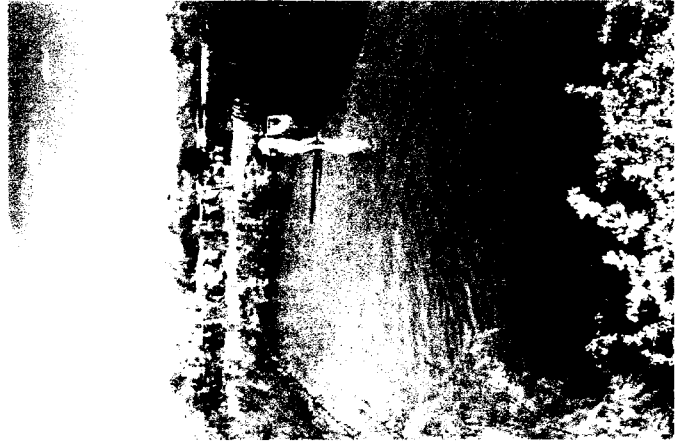
**February 8, 2006**



Coachella Valley Stormwater Channel  
View upstream from Kent SeaTech's discharge



Coachella Valley Stormwater Channel  
Riparian willow tree at Kent SeaTech's northern discharge location



Coachella Valley Stormwater Channel  
View across channel at Kent SeaTech's southern discharge location  
Bioassessment field work, Monica Swartz



Coachella Valley Stormwater Channel  
View downstream at Kent SeaTech's southern discharge location



Mike Massingill  
<mmassingill@kentseatech.com>

03/28/2006 04:50 PM

To Sara Greiner/R9/USEPA/US@EPA  
cc Monica Swartz <mswartz@cvwd.org>

bcc

Subject Kent SeaTech Bioassessment

History: This message has been forwarded.

Date: March 28, 2006

RE: Bioassessment for Draft NPDES Permit (Order No. R7-2006-0020)

Dear Ms. Greiner:

For purposes of clarifying our previous submittal, the biological assessment of Kent SeaTech's receiving water evaluated sites 200 meters up and down stream of the discharges as well as where the effluent discharge emptied into the Coachella Valley Storm Water Channel. If need be, this can be confirmed directly with Dr. Monica Swartz, Biologist, Coachella Valley Water District (phone: 760-398-2651, email: mswartz@cvwd.org). Dr. Swartz has also agreed to copy, and forward to you, the pertinent information from the book referenced in her assessment, Anderson and Ohmart, 1985, The Restoration of Rivers and Streams: Theories and Experience.

Please let me know if you have any other questions, or if any further information or detail is required.

Sincerely,

Michael J. Massingill  
Executive Vice President  
Kent SeaTech Corporation  
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San Diego Fax: 858-452-0075  
Farm Office: 760-396-2301