

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2002-0189

NPDES NO. CA0081949

WASTE DISCHARGE REQUIREMENTS
FOR
J.F. ENTERPRISES
WORM FARM
AND
BURCHELL NURSERY, INC.
STANISLAUS COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Board) finds that:

1. Jim Flowers is the sole proprietor of J.F. Enterprises. J.F. Enterprises operates the J.F. Enterprises Worm Farm, a tubifex (nadis) worm culturing operation, on land leased from the property owner, Burchell Nursery, Inc. J.F. Enterprises and Burchell Nursery, Inc. (hereafter Discharger) submitted a Report of Waste Discharge (RWD), dated 16 January 2002, and applied for a permit renewal to discharge waste under the National Pollutant Discharge Elimination System (NPDES).
2. The four acre J. F. Enterprises Worm Farm facility is approximately 1.5 river miles downstream from Orange Blossom Bridge, off Wamble Road in Stanislaus County, Section 5, T2S, R11E, MDB&M as shown on Attachment A, a part of this Order.
3. As part of the worm culturing operation, 3 to 4 million gallons of water is diverted each day from the Stanislaus River to 41 shallow ponds on the south bank of the River. Approximately 22,000 pounds of prepared food are added to the ponds each month, and 76,000 pounds of worms are harvested annually. Approximately 1.44 million gallons per day (mgd) of groundwater is sprayed on the pond surface for aeration and temperature control. After passing through the ponds, the co-mingled surface and groundwater is delivered to a 112,500 cubic foot settling basin. From the settling basin, process water is discharged at a maximum flow rate of 5.44 mgd to the Stanislaus River, a water of the United States, via Outfall 001 at the location shown on Attachment B, a part of this Order.
4. The discharge of flow-through process water to the Stanislaus River was previously regulated by Waste Discharge Requirements (WDR) Order No. 97-070, NPDES Permit No. CA0081949, which was adopted by the Regional Board on 25 April 1997.
5. The Report of Waste Discharge (RWD) and previous information submitted by the Discharger describes the combined surface and groundwater discharge characteristics as follows:

Monthly Average Dry Weather Flow:	5.44 million gallons per day (mgd)
Temperature:	44-73° F
pH:	7.0 – 8.0

<u>Constituent</u>	<u>Effluent, Monthly Average Concentration (mg/L¹, ppm²)</u>
Biochemical Oxygen Demand (BOD)	< 5.0
Suspended Solids	≤ 4.5
Settleable Matter	< 0.2
Dissolved Oxygen	> 8.0

¹ milligrams per Liter.

² parts per million

6. The U.S. Environmental Protection Agency (USEPA) and the Regional Board have classified this discharge as a minor discharge.
7. The Regional Board adopted a *Water Quality Control Plan, Fourth Edition, for the Sacramento and San Joaquin River Basins* (hereafter Basin Plan). The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the Basin. These requirements implement the Basin Plan.
8. Outfall 001 discharges directly to the Stanislaus River, downstream and west of the Orange Blossom Road Bridge. The California Department of Water Resources (DWR) operates a river flow monitoring station at the Orange Blossom Road Bridge (Station OBB). From the period of 1 January 1998 through 6 August 2002, Stanislaus River flows at this location ranged from a high of 4280 mgd, to a low of 135 mgd. Flows in the River at this location are dependent upon weather conditions and controlled releases from Goodwin Dam. The Basin Plan at page II-1.00 states that: "Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning." At page II-2.00 the Basin Plan states: "Existing and potential beneficial uses that currently apply to surface waters of the basins are presented in Figure II-1 and Table II-1." The existing **beneficial uses** of the Stanislaus River, from Goodwin Dam to the San Joaquin River, as identified in Table II-1 of the Basin Plan include: agricultural supply (AGR) including both irrigation and stock watering; industrial process supply (PRO); industrial service supply (IND), hydropower generation (POW), body contact recreation, canoeing and rafting, (REC-1); and other non-body contact recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD), cold habitat migration of aquatic organisms (MIGR) including salmon and steelhead, warm and cold habitat spawning, reproduction, and/or early development (SPWN); and wildlife habitat (WILD). Municipal and domestic supply (MUN) is identified as a potential beneficial use. The Basin Plan defines the beneficial uses and with respect to disposal of wastewaters states that "... disposal of wastewaters is [not] a prohibited use of waters of the State; it is merely a use which cannot be satisfied to the detriment of beneficial uses."
9. USEPA adopted the *National Toxics Rule* (NTR) on 5 February 1993 and the *California Toxics Rule* (CTR) on 18 May 2000. These Rules contain water quality standards applicable to this discharge. The State Water Resources Control Board (SWRCB) adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of*

California (known as the State Implementation Policy or SIP), which contains guidance on implementation of the NTR and the CTR.

10. Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numeric water quality standard. In support of this **reasonable potential analysis** (RPA), on 29 July 2002 the Discharger submitted additional information on effluent and receiving water characteristics and conventional and priority pollutants. This sampling was required pursuant to the 10 September 2001 letter issued by the Executive Officer of the Regional Board, in conformance with Section 13267 of the California Water Code, requiring the Discharger to prepare a technical report assessing effluent and receiving water quality. A summary of the reasonable potential analysis conducted on priority pollutant data which was submitted, and associated criteria published in the CTR and NTR, is shown in Attachment C, a part of this Order. A receiving water hardness of 30 mg/l was used to adjust criteria which are hardness dependent. Reported Method Detection Limits (MDL's) for all analytes were below applicable Minimum Levels (ML's) published in the SIP Appendix 4.

In no instance did concentrations of monitored constituents exceeded appropriate criteria in the CTR and NTR. RPA for constituents with effluent and receiving water concentrations reported as less than the appropriate criteria in the CTR and NTR as identified in Attachment C have been identified with a 'N' for No, meaning the pollutant has not triggered the requirement for an effluent limitation.

However, in some instances, ML's published in the SIP are above human health criteria published in the CTR and NTR. The RPA analysis for these constituents in Attachment C has been identified with an 'I' for Incomplete. Incomplete means that an approved laboratory analytical method and associated ML cannot, at this time, determine whether the analyte is present in the discharge above the applicable criteria due to technology limitations, therefore the RPA cannot be completed. This Order requires the Discharger to resample for these constituents if new ML's are adopted by the SWRCB. If, after resampling for these constituents, information suggests levels of NTR, CTR, or other pollutants in the discharge have the reasonable potential to cause or contribute to an in-stream excursion above a numeric or narrative water quality standard, including Basin Plan numeric or narrative objectives and NTR and CTR pollutants, this Order may be reopened to include effluent limitations for those pollutants.

11. Previous Order No. 97-070 included effluent limitations for flow, pH, Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), and Settleable Solids (SS). These limitations have been retained in this new Order.
12. As noted above, this facility utilizes shallow ponds for worm culturing operations. The close proximity of the shallow ponds to the Stanislaus River suggests shallow groundwater is in continuity with the River. Results of effluent monitoring indicate nutrients added for worm culturing operations are consumed by the process, with BOD concentrations consistently reported as less than 1 mg/L (ppm). Effluent concentrations of minerals and nutrients including nitrate (1.1 mg/L, ppm), sulfate (3.2 mg/L, ppm), chloride (4 mg/l, ppm) and phosphate

(<0.01 mg/L, ppm) are consistent with concentrations of these constituents in the Stanislaus River supply water. The flow-through nature of the culturing operation and short detention time, and the consumption of added nutrients during the process as demonstrated by the results of effluent monitoring, indicate the facility poses minimal threat to groundwater quality.

13. The beneficial uses of the underlying groundwater are municipal and domestic, industrial, and agricultural supply.
14. The permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and SWRCB Resolution 68-16. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.
15. Effluent limitations, and toxic and pretreatment effluent standards established pursuant to Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 304 (Information and Guidelines), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act (CWA) and amendments thereto are applicable to the discharge.
16. The action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Relations Code Section 21000, et. Seq.), in accordance with Section 13389 of the California Water Code.
17. The Regional Board has considered the information in the attached Information Sheet in developing the Findings of this Order. The attached Information Sheet is part of this Order. Attachments A, B, and C are also a part of this Order.
18. The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
19. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.
20. This Order shall serve as an NPDES permit pursuant to Section 402 of the CWA, and amendments thereto, and shall take effect 50 days following permit adoption (effective 7 December 2002), provided EPA has no objections.
21. Any person adversely affected by this action of the Regional Board may petition the SWRCB to review the action. The petition must be received by the State Board Office of the Chief Counsel, P.O. Box 100, Sacramento, CA 95812-0100, within 30 days of the date the action was taken. Copies of the law and regulations applicable to filing petitions will be provided upon request.

IT IS HEREBY ORDERED that Order No. 97-070 is rescinded and that the J.F. Enterprises Worm Farm and Burchell Nursery Inc., their agents, successors and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions:

1. Discharge of process wastewater at a location or in a manner different from that described in Finding No. 2 and Finding No. 3 is prohibited.
2. Neither the discharge nor its treatment shall create a nuisance as defined in Section 13050 of the California Water Code.
3. The by-pass or overflow of wastes to surface waters is prohibited, except as allowed by Standard Provision A.13 [See attached “Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES)"].

B. Effluent Limitations: (Discharge from Outfall 001 to the Stanislaus River)

1. Effluent shall not exceed the following limits:

<u>Constituents</u>	<u>Units</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>
20°C BOD ¹	mg/L (ppm)	10.0	5.0
	lbs/day	454 ²	227 ²
Total Suspended Solids	mg/L (ppm)	15.0	8.0
	lbs/day	681 ²	363 ²
Settleable Solids	ml/L	0.2	0.1

¹ Biochemical Oxygen Demand

² Based upon monthly average flow limitation of 5.44 mgd.

2. The discharge shall not have a pH less than 6.5 nor greater than 8.5.
3. The average monthly dry weather flow shall not exceed 5.44 million gallons per day (mgd).

C. Receiving Water Limitations:

Receiving Water Limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this permit. A receiving water condition not in conformance with the limitation is not necessarily a violation of this Order. The Regional Board may require an investigation to determine cause and culpability prior to asserting a violation has occurred.

The discharge shall not cause the following in the receiving water:

1. Concentrations of dissolved oxygen to fall below 7.0 mg/L (ppm). The monthly median of the mean daily dissolved oxygen concentration at this location shall not fall below 85 percent of saturation in the main water mass, and the 95th percentile concentration shall not fall below 75 percent of saturation.
2. Any individual pesticide or combination of pesticides to be present in concentrations that adversely affect beneficial uses, and total identifiable persistent chlorinated hydrocarbon pesticides to be present in the water column at concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the Executive Officer.
3. Oils, greases, waxes, or other materials to form a visible film or coating on the water surface or on the stream bottom.
4. Oils, greases, waxes, floating material (liquids, solids, foams, and scums) or suspended material to create a nuisance or adversely affect beneficial uses.
5. Aesthetically undesirable discoloration.
6. Fungi, slimes, or other objectionable growths.
7. The turbidity to increase as follows:
 - a. More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.
 - b. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
 - c. More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.
 - d. More than 10 percent where natural turbidity is greater than 100 NTUs.
8. The normal ambient pH to fall below 6.5, exceed 8.5, or change by more than 0.5 pH units.
9. Deposition of material that causes nuisance or adversely affects beneficial uses.
10. The normal ambient temperature to increase more than 5°F.

11. Radionuclides to be present in concentrations that exceed maximum contaminant levels specified in the California Code of Regulations, Title 22; that harm human, plant, animal or aquatic life; or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.
12. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.
13. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental response in human, plant, animal, or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health.
14. Violations of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board pursuant to the CWA and regulations adopted thereunder.
15. Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to cause nuisance or adversely affect beneficial uses.

D. Sludge Disposal:

1. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer, and consistent with *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005, et seq.
2. Any proposed change in sludge use or disposal practice from a previously approved practice shall be reported to the Executive Officer and EPA Regional Administrator at least **90 days** in advance of the change.

E. Provisions:

1. The Discharger shall comply with Monitoring and Reporting program No. R5-2002-0189, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.
2. **Reopener, Change in Adopted ML's:** As noted in Finding 10., in some instances, ML's for specific constituents published in the SIP are above human health criteria published in the CTR and NTR. The RPA analysis for these constituents in Attachment C has been identified with an 'I' for Incomplete. Incomplete means that an approved laboratory analytical method and associated ML cannot, at this time, determine whether the analyte is present in the discharge above the applicable criterion, therefore the RPA cannot be

completed. The Discharger shall resample for these constituents if new ML's are adopted by the SWRCB. If, after resampling for these constituents, information suggests levels of NTR, CTR, or other pollutants in the discharge have the reasonable potential to cause or contribute to an in-stream excursion above a numeric or narrative water quality standard, including Basin Plan numeric or narrative objectives and NTR and CTR pollutants, this Order may be reopened to include effluent limitations for those pollutants.

3. The Discharger shall comply with all the items of the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES)", dated 1 March 1991, which are part of this Order. This attachment and its individual paragraphs are referred to as "Standard Provisions."
4. The Discharger shall use the best practicable control to limit mineralization to no more than a reasonable increment.
5. This Order expires on **1 October 2007** and the Discharger must file a Report of Waste Discharge in accordance with Title 23, CCR, not later than 180 days in advance of such date in application for renewal of waste discharge requirements if it wishes to continue the discharge.
6. Prior to making any change in the discharge point, place of use, or purpose of use of the wastewater, the Discharger shall obtain approval of or clearance from the SWRCB (Division of Water Rights).
7. In the event of any change in control or ownership of land or waste discharge facilities recently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.
8. To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Regional Board and a statement. The statement shall comply with the signatory paragraph of Standard Provision D.6 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

WASTE DISCHARGE REQUIREMENTS NO. R5-2002-0189
J.F. ENTERPRISES
WORM FARM
BURCHELL NURSERY, INC.
STANISLAUS COUNTY

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I, THOMAS R. PINKOS, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 18 October 2002.

THOMAS R. PINKOS, Executive Officer

JME

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2002-0189

NPDES NO. CA0081949

FOR
J.F. ENTERPRISES
WORM FARM
AND
BURCHELL NURSERY, INC.
STANISLAUS COUNTY

This Monitoring and Reporting Program is issued pursuant to Water Code Section 13267. For purposes of evaluating compliance with the limitations of Order No. R5-2002-0189, the Discharger shall conduct monitoring and submit reports as specified below. To evaluate compliance with the limitations of this Order, monitoring should occur within a brief enough period to be able to evaluate the effect of the effluent on the ambient water quality. The Discharger shall not implement any changes to this Program unless and until the Regional Board or Executive Officer issues a revised Monitoring and Reporting Program.

EFFLUENT MONITORING

Effluent samples shall be collected downstream from the last connection through which wastes can be admitted into the outfall. Effluent samples shall be representative of the volume and quality of the discharge, including batch releases from the treatment processes. Time of collection of samples shall be recorded. The Effluent monitoring shall include at least the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Frequency</u>
Flow	mgd	Meter	Continuous
pH ¹	pH units	Grab	Twice Monthly
Temperature ¹	°F	Grab	Twice Monthly
Dissolved Oxygen ¹	mg/L (ppm)	Grab	Twice Monthly
Electrical Conductivity ¹	µmhos/cm	Grab	Twice Monthly
20°C Biochemical Oxygen Demand	mg/L (ppm), lbs/day	Grab	Twice Monthly
Total Suspended Solids	mg/L (ppm), lbs/day	Grab	Twice Monthly
Settleable Solids	ml/L	Grab	Twice Monthly
Turbidity	NTU	Grab	Quarterly
Standard Minerals ²	mg/L (ppm)	Grab	Annually

- ¹ Field measurements.
² Standard Minerals shall include pH, hardness, silica, calcium, magnesium, hardness, phosphate, sodium, potassium, bicarbonate alkalinity, carbonate alkalinity, sulfate, and chloride and include verification that the analysis is complete (i.e. cation/anion balance).

If the discharge is intermittent rather than continuous, then on the first day of each such intermittent discharge, the Discharger shall monitor and record data for all of the constituents listed above, after which the frequencies of analysis given in the schedule shall apply for the duration of each such intermittent discharge. In no event shall the Discharger be required to monitor and record data more often than twice the frequencies listed in the schedule.

RECEIVING WATER MONITORING

All receiving water samples shall be grab samples. Receiving water monitoring shall be conducted only when the facility is in operation. Receiving water monitoring shall include at least the following:

<u>Station</u>	<u>Description</u>
R-1	100 feet upstream from the point of discharge
R-2	100 feet downstream from the point of discharge

<u>Constituents</u>	<u>Units</u>	<u>Station</u>	<u>Sampling Frequency</u>
Flow ¹	cfs	Upstream Gauging Station	Twice Monthly
pH ²	pH units	R-1	Twice Monthly
Temperature ²	°F	R-1, R-2	Twice Monthly
Dissolved Oxygen ²	mg/L (ppm)	R-1, R-2	Twice Monthly
Electrical Conductivity ²	µmhos/cm	R-1, R-2	Twice Monthly
Turbidity	NTU	R-1, R-2	Quarterly

¹ Estimate of receiving water flow, recorded for each day of sample collection. Use CA DWR gauging station at Orange Blossom Road Bridge if available.

² Field measurements.

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by Stations R-1 and R-2. Attention shall be given to the presence of:

- a. Floating or suspended matter
- b. Discoloration
- c. Bottom deposits
- d. Aquatic life
- e. Visible films, sheens or coatings
- f. Fungi, slimes, or objectionable growths
- g. Potential nuisance conditions

Notes on receiving water conditions shall be summarized in the monitoring reports.

GROUNDWATER SUPPLY MONITORING

Groundwater samples shall be collected from on-site wells. The date and time of sample collection shall be recorded. Groundwater monitoring shall include at least the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Frequency</u>
pH ¹	pH units	Grab	Quarterly
Electrical Conductivity ¹	µmhos/cm	Grab	Quarterly
20°C Biochemical Oxygen Demand	mg/L (ppm)	Grab	Quarterly
Standard Minerals ²	mg/L (ppm)	Grab	Annually

¹ Field measurements.

² Standard Minerals shall include pH, hardness, silica, calcium, magnesium, hardness, phosphate, sodium, potassium, bicarbonate alkalinity, carbonate alkalinity, sulfate, and chloride and include verification that the analysis is complete (i.e. cation/anion balance).

REPORTING

Monitoring reports shall be submitted to the Regional Board by the **first day** of the second month following sample collection. Annual monitoring results shall be submitted by the **first day of the second month following each calendar year**.

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the discharge complies with waste discharge requirements. The highest daily maximum for the month, monthly and weekly averages, and medians, and should be determined and recorded.

If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting

of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

By **30 January** of each year, the Discharger shall submit a written report to the Executive Officer containing the following:

- a. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations.
- b. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration (Standard Provision C.6).
- c. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the groundwater treatment plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for accuracy.

The Discharger may also be requested to submit an annual report to the Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

All reports submitted in response to this Order shall comply with the signatory requirements of Standard Provision D.6.

The Discharger shall implement the above monitoring program on the first day of the month following effective date of this Order.

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered By:

THOMAS R. PINKOS, Executive Officer

18 October 2002

Date

INFORMATION SHEET

Site Description and Background

Jim Flowers is the sole proprietor of J.F. Enterprises. J.F. Enterprises operates a Worm Farm, a tubifex (nadis) worm culturing operation, on land leased from the property owner, Burchell Nursery, Inc. J.F. Enterprises and Burchell Nursery, Inc. (hereafter Discharger) submitted a Report of Waste Discharge (RWD), dated 16 January 2002, and applied for a permit renewal to discharge waste under the National Pollutant Discharge Elimination System (NPDES). The four acre J. F. Enterprises Worm Farm facility is approximately 1.5 river miles downstream from Orange Blossom Bridge, off Wamble Road in Stanislaus County, as shown on Attachment A.

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The discharge of flow-through process water to the Stanislaus River was previously regulated by Waste Discharge Requirements (WDR) Order No. 97-070, NPDES Permit No. CA0081949, which was adopted by the Regional Board on 25 April 1997.

Discharge Characteristics

The Report of Waste Discharge (RWD) and previous information submitted by the Discharger describes the combined surface and groundwater discharge characteristics as follows:

Monthly Average Dry Weather Flow:	5.44 million gallons per day (mgd)
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Basin Plan

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Receiving Water

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Beneficial Uses

The Basin Plan at page II-1.00 states that: "Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning." At page II-2.00 the Basin Plan states: "Existing and potential beneficial uses that currently apply to surface waters of the basins are presented in Figure II-1 and Table II-1." The existing beneficial uses of the Stanislaus River, from Goodwin Dam to the San Joaquin River, as identified in Table II-1 of the Basin Plan include: agricultural supply (AGR) including both irrigation and stock watering; industrial process supply (PRO); industrial service supply (IND), hydropower generation (POW), body contact recreation, canoeing and rafting, (REC-1); and other non-body contact recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD), cold habitat migration of aquatic organisms (MIGR) including salmon and steelhead, warm and cold habitat spawning, reproduction, and/or early development (SPWN); and wildlife habitat (WILD). Municipal and domestic supply (MUN) is identified as a potential beneficial use. The Basin Plan defines the beneficial uses and with respect to disposal of wastewaters states that "... disposal of wastewaters is [not] a prohibited use of waters of the State; it is merely a use which cannot be satisfied to the detriment of beneficial uses."

NTR/CTR, Reasonable Potential Analysis

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Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numeric water quality standard. In support of this reasonable potential analysis (RPA), on 29 July 2002 the Discharger submitted additional information on effluent and receiving water characteristics and conventional and priority pollutants. This sampling was required pursuant to the 10 September 2001 letter issued by the Executive Officer of the Regional Board, in conformance with Section 13267 of the California Water Code, requiring the Discharger to prepare a technical report assessing effluent and receiving water quality. A summary of the reasonable potential analysis conducted on priority pollutant data and criteria published in the CTR and NTR is shown in Attachment C. A receiving water hardness of 30 mg/l was used to adjust criteria which are hardness dependent. Reported Method Detection Limits (MDL's) for all analytes were below applicable Minimum Levels (ML's) published in the SIP Appendix 4.

In no instance did concentrations of monitored constituents exceeded appropriate criteria in the CTR and NTR. RPA for constituents with effluent and receiving water concentrations reported as less than the appropriate criteria in the CTR and NTR as identified in Attachment C have been identified with a 'N' for No, meaning the pollutant has not triggered the requirement for an effluent limitation.

However, in some instances, ML's published in the SIP are above human health criteria published in the CTR and NTR. The RPA analysis for these constituents in Attachment C has been identified with an 'I' for Incomplete. Incomplete means that an approved laboratory analytical method and associated ML cannot, at this time, determine whether the analyte is present in the discharge above the applicable criteria, therefore the RPA cannot be completed. This Order requires the Discharger to resample for these constituents if new ML's are adopted by the SWRCB. If, after resampling for these constituents, information suggests levels of NTR, CTR, or other pollutants in the discharge have the reasonable potential to cause or contribute to an in-stream excursion above a numeric or narrative water quality standard, including Basin Plan numeric or narrative objectives and NTR and CTR pollutants, this Order may be reopened to include effluent limitations for those pollutants.

Previous Order Effluent Limitations

Previous Order No. 97-070 included effluent limitations for flow, pH, Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), and Settleable Solids (SS). With proper operation of the facility and culturing operations, the Discharger is capable of meeting these limitations. These effluent limitations have been retained in this new Order.