

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. R5-2004-0105

WASTE DISCHARGE REQUIREMENTS  
FOR  
ERICKSON PROCESSING INC.  
GIBBS CALIFORNIA WILD RICE  
SUTTER COUNTY

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

1. Erickson Processing, Inc. (“Discharger”) submitted a Report of Waste Discharge (RWD), dated 8 February 2001, for the land application of wild rice soaking wastewater. The RWD was determined to be incomplete. Additional information was submitted on 18 February 2002 and on 21 November 2003.
2. The wild rice processing facility is at 10400 Billings Road, Live Oak. The facility and the land application area are on Assessor’s Parcel No. 08-110-86.
3. The properties are in Section 36, T17N, R2E, MDB&M, as shown in Attachment A, which is attached hereto and made part of the Order by reference. The Discharger owns the parcels that are used for processing and wastewater disposal.
4. The RWD was submitted for an existing wild rice processing facility and its associated process wastewater disposal system. The facility has not previously been regulated by Waste Discharge Requirements (WDRs).

**BACKGROUND**

5. The Discharger processes and packages freshly harvested wild rice. The facility was constructed and has been utilized for this purpose since 1982. There are no plans to significantly modify the facility.
6. The facility consists of an office/packaging/processing building, a shop, a storage building, and the wastewater system, as shown on Attachment B, which is attached hereto and made part of the Order by reference.
7. During the production season, which generally extends from mid-July through September, the facility processes approximately 100,000 pounds of rice per day.
8. The rice is first soaked for approximately one hour in bins before being roasted and hulled. The source of the rice-soaking water is an onsite well. No chemicals are added to the source water prior to or during the soaking process.

9. The rice is soaked in large portable bins that are placed on a covered, bermed cement pad. Once the soaking process is complete, the water is drained from the bins and the bins are then moved to large roasting ovens.
10. The only source of wastewater is the soaking process. During the processing season, wastewater is generated 24 hours per day, seven days a week, from approximately mid-July through September. Wastewater is not generated during the rest of the year.
11. The wastewater flow is not metered. The estimated maximum daily flow is 20,000 gallons and the estimated annual flow is 800,000 gallons.

### WASTEWATER SYSTEM

12. Wastewater drained from the soaking bins flows off the pad into an unlined ditch, which leads to a small percolation/evaporation (P/E) pond.
13. The ditch is approximately 400 feet long and has a total holding capacity of approximately 36,000 gallons.
14. The P/E pond approximately 50 feet long, 50 feet wide, and 3 feet deep, with a holding capacity of approximately 37,000 gallons while maintaining one foot of freeboard.
15. Stormwater collected from paved areas and buildings is not directed to the P/E pond. During precipitation events, the P/E pond only receives direct rainfall.
16. The Discharger has indicated that neither the ditch nor the pond has ever overflowed, but that toward the end of the processing season, the pond freeboard sometimes is as little as one foot. The Discharger also stated that the P/E pond generally dries up each year, shortly after ceasing discharge to the pond. Because the P/E pond does not have enough capacity to maintain two feet of freeboard at all times, this Order requires that the Discharger increase the pond capacity to ensure adequate freeboard can be maintained at all times.
17. The treatment of process wastewater consists of screening prior to discharge into the P/E pond. Wastewater in the pond is further treated through biological activity, settling, and volatilization of organic compounds.
18. The Discharger has not characterized the wastewater. However, on 17 August 2001, Regional Board staff collected and analyzed a single sample of the wastewater from the P/E pond. The results are shown on the table below:

Compound	Units	Pond Wastewater (August 2001)
PH	pH units	7.2
Biochemical Oxygen Demand (BOD <sub>5</sub> ) <sup>1</sup>	mg/l	354

Compound	Units	Pond Wastewater (August 2001)
Total Dissolved Solids (TDS)	mg/l	1460
Specific Conductance	umhos/cm	1200
Nitrate-N	mg/l	0.58
Hardness	mg/l	120
Barium	mg/l	<0.1
Calcium	mg/l	16
Iron	mg/l	0.24
Lead	ug/l	<3
Manganese	mg/l	1.8
Potassium	mg/l	320
Magnesium	mg/l	19
Fluoride	mg/l	<0.1
Total Phosphate	mg/l	54
Arsenic	ug/l	22
Sodium	mg/l	21.1
Chloride	mg/l	100
Sulfate	mg/l	33
Mercury	ug/l	<1.0

19. Solids generated during the wastewater treatment and disposal process consist of the screenings collected as the wastewater leaves the cement pad and sludge collected in the ditch and pond.

### GROUNDWATER CONDITIONS

20. The RWD does not contain any information regarding depth to groundwater. However, the Discharger has verbally indicated that the first encountered groundwater underlying the facility may be as shallow as 15 or 20 feet below ground surface.
21. A water supply well exists on the property and provides process water for this facility. Specific details regarding this well, such as well depth, depth to groundwater, and well construction details were not available to the Discharger. The well location is shown on Attachment B. The well was sampled by Regional Board staff on 17 August 2001. The results are shown on the table below:

Constituent	Units	Concentration (17 August 2001)
Total Dissolved Solids	mg/l	244
Specific Conductance	umhos/cm	345
Arsenic	ug/l	19
Barium	mg/l	0.16
Boron	mg/l	<0.1
Calcium	mg/l	24

Constituent	Units	Concentration (17 August 2001)
Sodium	mg/l	15
Chloride	mg/l	4.4
Iron	mg/l	<0.05
Magnesium	mg/l	23
Manganese	mg/l	<0.02
Potassium	mg/l	2.58
Nitrate (as N)	mg/L	0.63
pH	Std. Unit	7.8

22. Because the wastewater has not been fully characterized and constituents of concern could be present in the storage pond at concentrations that might degrade the underlying groundwater, it is appropriate to require the Discharger to evaluate the discharge after a year of monitoring. If constituents are present at concentrations that could degrade the underlying groundwater, then the Discharger will be required to take steps to prevent degradation. These steps could include additional treatment of the waste, lining the ditch and/or the pond, or utilizing a different method of wastewater disposal. The Discharger may also be required to install groundwater monitoring wells.

#### **SITE SPECIFIC CONDITIONS**

23. The area surrounding the facility contains agricultural and residential land uses. The topography of the surrounding area is flat.
24. The area containing the facility is located outside the 100-year flood zone.
25. Soil characteristics in the vicinity of the facility have not been documented, but the Discharger has reported that site soils consist of sands and silts.
26. Domestic wastewater is discharged to a septic system that is permitted by Sutter County Environmental Health Department, who will continue to provide oversight for the septic system. Domestic wastewater is not commingled with the process wastewater.

#### **BASIN PLAN, BENEFICIAL USES, AND REGULATORY CONSIDERATIONS**

27. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition* (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board. Pursuant to Section 13263(a) of the California Water Code, waste discharge requirements must implement the Basin Plan.
28. Surface water drainage is to Morrison Slough, a tributary of the Snake River, which is a tributary of the Sutter Bypass.

29. The beneficial uses of the Sutter Bypass are agricultural irrigation supply; water contact recreation; warm freshwater habitat; migration of aquatic organisms; spawning, reproduction, and/or early development; and wildlife habitat. According to the Basin Plan, these beneficial uses also apply to Morrison Slough and the Snake River, because they are tributary to the Sutter Bypass. In addition, the Basin Plan states that “water bodies in the basins that do not have beneficial uses designated in Table II-1 are assigned MUN (municipal and domestic supply) designations in accordance with the provisions of State Water Resources Control Board Resolution No. 88-63, which is, by reference, a part of the Basin Plan.” Because Morrison Slough and the Snake River are not listed in Table II-1, municipal and domestic supply would also be designated beneficial uses of these water bodies.
30. The beneficial uses of underlying groundwater are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
31. State Water Resources Control Board (State Board) Resolution No. 68-16 requires that the Regional Board, in regulating the discharge of waste, must maintain high quality waters of the state until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the State Board’s policies (e.g., quality that exceeds water quality objectives). Resolution 68-16 also prescribes that the discharge be required to meet waste discharge requirements, which will result in the Best Practicable Treatment or Control (BPTC) of the discharge to assure that pollution or nuisance will not occur, and the highest water quality consistent with the maximum benefit to the people of the State be maintained.
32. The Regional Board has considered antidegradation pursuant to State Board Resolution No. 68-16 and finds that, because the quality of the wastewater has not yet been adequately characterized, it is unknown whether this discharge is consistent with those provisions. Therefore, this Order provides a schedule for data collection and evaluation to determine whether the discharge may cause an increase in groundwater constituents above that of background levels. If the discharge is found to have the potential to cause an increase, then the Discharger may be required to install groundwater monitoring wells and initiate ongoing groundwater monitoring to evaluate whether the discharge of waste is impacting the groundwater quality. The Discharger may also be required to take other measures, such as implementing source control or changing the method of treatment and/or disposal to prevent groundwater degradation. This Order also establishes effluent limitations that are protective of the beneficial uses of the underlying groundwater.
33. Section 13267(b) of California Water Code provides that: *“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In*

*requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”*

The monitoring and reporting program required by this Order and the attached Monitoring and Reporting Program No. R5-2004-0105 are necessary to assure compliance with these WDRs. The Discharger operates the facility that discharges the waste subject to this Order.

34. Excessive application of food processing wastewater to land application areas can create objectionable odors, soil conditions that are harmful to crops, and degradation of underlying groundwater by overloading the shallow soil profile and causing waste or soil constituents (organic carbon, nitrate, dissolved solids, and metals) to percolate below the root zone. If sufficient information becomes available, this Order may be revised to increase or further reduce loading rates as appropriate. If the Discharger is unable to modify its waste stream or application methods such that groundwater quality will not be impacted, then the Regional Board would be required to classify the waste as a designated waste and require full containment under Title 27 of the California Code of Regulations (CCR), Division 2, Subdivision 1, beginning with Section 20005 (hereafter Title 27).
35. According to *Pollution Abatement in the Fruit and Vegetable Industry*, published by the United States Environmental Protection Agency (US EPA Publication No. 625/3-77-0007) (hereafter *Pollution Abatement*), in applying food processing wastewater to land for biological treatment, the loading of BOD<sub>5</sub> should not exceed 100 lbs/acre/day (average) to prevent development of nuisance conditions.
36. Acidic soil conditions can be detrimental to land treatment system function, and may also cause groundwater degradation. If the buffering capacity of the soil is exceeded and soil pH decreases below 5, naturally occurring metals (including iron and manganese) may dissolve and degrade underlying groundwater. *Pollution Abatement* recommends that water applied to crops have a pH between 6.4 and 8.4 to protect crops from damage by food processing wastewater. Near neutral pH is also required to maintain adequate active microbial populations in the soil.
37. State regulations that describe procedures for detecting and characterizing the impact of waste constituents from waste management units on groundwater are found in Title 27. While the facility is currently exempt from Title 27, the data analysis methods of Title 27 may be appropriate for determining whether the discharge complies with the terms for protection of groundwater specified in this Order.
38. The California Department of Water Resources sets standards for the construction and destruction of groundwater wells, as described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 94-81* (December 1981). These standards, and any more stringent standards adopted by the State or County pursuant to CWC section 13801, apply to all monitoring wells.
39. Federal regulations for stormwater discharges promulgated by the U.S. Environmental Protection Agency (40 CFR Parts 122, 123, and 124) require specific categories of facilities which discharge

stormwater to obtain NPDES permits. This facility is within the specific categories described by the US EPA, and it is therefore appropriate to require that the Discharger submit a Notice of Non-Applicability, apply for a No Exposure Certification, or obtain coverage for its processing facility under the State Board's Water Quality Order No. 97-03-DWQ to comply with these regulations.

40. The action to adopt WDRs for this existing facility is exempt from provisions of the California Environmental Quality Act (CEQA), in accordance with Title 14, California Code of Regulations (CCR), Section 15301.
41. This discharge is exempt from the requirements of *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., (hereafter Title 27). The exemption, pursuant to Section 20090(b), is based on the following:
  - a. The Regional Board is issuing waste discharge requirements,
  - b. The discharge complies with the Basin Plan, and
  - c. The wastewater does not need to be managed according to Title 22 CCR, Division 4.5, and Chapter 11, as a hazardous waste.

The basis for this exemption, pursuant to (b) above, may be revised as new information becomes available on background water quality and the potential for water quality impacts from the waste discharge.

42. Pursuant to California Water Code Section 13263(g), discharge is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

### **PUBLIC NOTICE**

43. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.
44. The Discharger and interested agencies and persons have been notified of the intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
45. All comments pertaining to the discharge were heard and considered in a public meeting.

***IT IS HEREBY ORDERED*** that pursuant to Sections 13263 and 13267 of the California Water Code, Erickson Processing Inc., its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

*Note: Other prohibitions, conditions, definitions, and the method of determining compliance are contained in the attached "Standard Provisions and Reporting Requirements for Waste Discharge"*

*Requirements” dated 1 March 1991.*

**A. Discharge Prohibitions:**

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. The discharge shall not cause the degradation of any water supply.
3. Discharge of waste classified as hazardous, as defined in Sections 2521(a) of Title 23, CCR, Section 2510, et seq., (hereafter Chapter 15), or ‘designated’, as defined in Section 13173 of the California Water Code, is prohibited.
4. Discharge of domestic wastewater to the process wastewater system sites is prohibited.
5. Discharge of process water to areas other than the ditch and P/E pond described in the Findings is prohibited.

**B. Discharge Specifications:**

1. The monthly average process wastewater discharge to the P/E pond shall not exceed 20,000 gallons per day.
2. Neither the treatment nor the discharge shall cause a condition of pollution or nuisance as defined by the California Water Code, Section 13050.
3. No waste constituent shall be released or discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of the Groundwater Limitation.
4. Public contact with wastewater shall be precluded or controlled through such means as fences and signs, or acceptable alternatives.
5. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the property owned by the Discharger.
6. As a means of discerning compliance with Discharge Specification No. B.5, the dissolved oxygen content of any pond water shall not be less than 1.0 mg/L at any time.
7. The Discharger shall operate all systems and equipment to maximize treatment of wastewater and optimize the quality of the discharge.
8. The Discharger’s wastewater treatment system shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
9. The facility shall have sufficient treatment, storage, and disposal capacity to accommodate allowable wastewater flow and design seasonal precipitation and ancillary inflow and infiltration during the winter months. Design seasonal precipitation shall be based on total

annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.

10. Until such time as modifications to increase pond capacity have been implemented, freeboard in the P/E pond shall never be less than one foot as measured from the water surface to the lowest point of overflow. After the pond is modified in order to increase its capacity, freeboard shall never be less than two feet.
11. On or about **15 October** of each year, available pond storage capacity shall at least equal the volume necessary to comply with Discharge Specifications B.9 and B.10.

**C. Effluent Limitations**

1. The maximum BOD<sub>5</sub> loading to the P/E pond shall not exceed any of the following, unless the Discharger demonstrates that another loading rate is technically justified, as described in Provision No. G.12:
  - a. 300 lbs/acre on any single day;
  - b. 100 lbs/acre•day as a 7-day average;
  - c. The maximum loading rate that ensures that the discharge will not create a nuisance.
2. Wastewater discharged to the P/E pond shall not have a pH of less than 6.5 or greater than 8.4.

**D. Solids Disposal:**

1. Collected screenings, sludge, and other solids removed from wastewater shall be disposed of in a manner that is consistent with Title 27, Division 2, Subdivision 1 of the CCR and approved by the Executive Officer.
2. Any proposed change in solids use or disposal practice from a previously approved practice shall be reported to the Executive Officer at least 90 days in advance of the change.

**E. Groundwater Limitations:**

The discharge, in combination with other sources, shall not cause underlying groundwater to contain waste constituents in concentrations greater than natural background water quality.

**F. Provisions:**

1. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. To demonstrate compliance with sections 415 and 3065 of Title 16, CCR, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the

signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

2. All of the following reports shall be submitted pursuant to Section 13267 of the California Water Code and shall be prepared by a registered professional as described by Provision G.1.
  - a. By **15 July 2004**, the Discharger shall submit a letter describing in detail how wastewater pond inflows will be estimated.
  - b. By **1 October 2004**, the Discharger shall submit either a Notice of Non-Applicability, an application for a No Exposure Certification, or a Notice of Intent to comply with State Board Water Quality Order No. 97-03-DWQ for discharges of stormwater from the facility.
  - c. By **1 July 2005**, the Discharger shall submit a report that demonstrates that the capacity of the P/E pond has been increased so as to ensure that a minimum of two feet of freeboard can be maintained at all times. The report shall include a water balance that evaluates the wastewater storage and disposal capacity of the facility.
  - d. By **1 December 2005**, the Discharger shall submit an *Effluent Evaluation Report*. The report shall summarize the effluent monitoring data collected through September 2005 and shall evaluate whether the continued discharge of wastewater to the unlined ditch and pond has the potential to degrade water quality. If there is a potential for degradation, then the Discharger shall evaluate contaminant control alternatives, and describe a preferred alternative and a proposed a timeline to meet the Groundwater Limitations of this Order. If control measures are proposed, they shall be implemented prior to the 2006 packing season.

If control measures are not proposed, but historical effluent monitoring data indicate a significant potential exists for groundwater degradation, then the Discharger shall submit a *Groundwater Well Installation Workplan* and *Groundwater Sampling and Analysis Plan* prepared in accordance with, and including the items listed in, Section 1.0 of Attachment C: *Monitoring Well Installation Workplans and Monitoring Well Installation Reports*. The workplan shall propose the installation of a sufficient number of groundwater monitoring wells to monitor the groundwater in the vicinity of the wastewater ponds (upgradient and downgradient), including background groundwater quality out of the influence of waste discharge at the facility. All wells shall be designed to yield samples representative of the uppermost portion of the first encountered groundwater.

- e. If the *Effluent Evaluation Report* includes a workplan for the installation of groundwater monitoring wells, then by **1 February 2006**, the Discharger shall submit a *Monitoring Well Installation Report* that contains the information in Sections 2.0 of Attachment C.
- f. If the *Effluent Evaluation Report* includes a proposal for implementation of control measures, then by **1 June 2006**, the Discharger shall submit a *Wastewater System Improvement Report* that describes in detail the measures implemented to ensure the Groundwater Limitations of this Order are met.

- g. If the wastewater pond generates nuisance odors, or if the dissolved oxygen concentration is consistently less than 1.0 mg/l, then, upon written order of the Executive Officer, the Discharger shall submit an *Odor Control Contingency Plan*. The plan shall describe the modifications, and operation and maintenance procedures that will be implemented to bring the facility into compliance with Discharge Specifications No. B.5 and B.6 of this Order.
3. The Discharger shall comply with the Monitoring and Reporting Program No. R5-2004-0105, which is a part of this Order, and any revisions thereto as ordered by the Executive Officer.
4. The Discharger shall comply with the “Standard Provisions and Reporting Requirements for Waste Discharge Requirements”, dated 1 March 1991, which are attached hereto and by reference a part of this Order. This attachment and its individual paragraphs are commonly referenced as “Standard Provision(s).”
5. At least 90 days prior to termination or expiration of any lease, contract, or agreement involving the land application area used to justify the capacity authorized herein and assure compliance with this Order, the Discharger shall notify the Regional Board in writing of the situation and of what measures have been taken or are being taken to assure full compliance with this Order.
6. The Discharger shall submit to the Regional Board on or before each compliance report due date the specified document, or if appropriate, a written report detailing compliance or noncompliance with the specific scheduled date and task. If noncompliance is reported, then the Discharger shall state the reasons for noncompliance and shall provide a schedule to come into compliance.
7. The Discharger shall use the best practicable cost effective control technique(s) currently available to comply with discharge limits specified in this order.
8. The Discharger shall report promptly to the Regional Board any material change or proposed change in the character, location, or volume of the discharge.
9. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, then the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this office.
10. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
11. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
12. If the Discharger can demonstrate to the satisfaction of the Executive Officer that higher BOD loadings than that specified in Effluent Limitation No. C.2 will not cause or contribute to cause

waste constituents to leach into and degrade underlying groundwater, or cause any other violation of the terms and conditions of this Order, then this Order may be reopened for consideration of revision of BOD loading limits. The demonstration shall include the submittal of a technical report that describes, at a minimum, the results of a field demonstration project conducted over the course of at least two years on similar soil types as those in the land application areas and using similar food processing wastewater as that described in the Findings.

13. The Regional Board may review this Order periodically and may revise requirements when necessary.

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 9 July 2004.

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THOMAS R. PINKOS, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2004-0105

FOR

ERICKSON PROCESSING, INC.  
GIBBS CALIFORNIA WILD RICE  
SUTTER COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for the monitoring of wastewater influent, the wastewater pond, and groundwater. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer. Regional Board staff shall approve specific sample station locations prior to implementation of sampling activities.

All samples should be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each sample shall be recorded on the sample chain of custody form.

Field test instruments (such as those used to test pH and dissolved oxygen) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated prior to each monitoring event;
3. Instruments are serviced and/or calibrated by the manufacturer, or manufacturer approved repair shop, at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

Monitoring reports must be submitted every month throughout the year, even if no discharge occurs.

**INFLUENT MONITORING**

Wastewater influent monitoring shall be conducted prior to discharge into the wastewater pond. Influent monitoring shall include, at a minimum, the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow	gpd	Estimation <sup>1</sup>	Daily	Monthly

<sup>1</sup>The method for estimating wastewater flow shall be described in a letter prescribed by Provision F.2.a of the WDRs

### WASTEWATER POND MONITORING

The wastewater pond shall be monitored if the maximum depth of wastewater in the pond is one foot or greater. If the pond is dry or maximum depth of wastewater is less than one foot, then the monitoring report shall so note, and monitoring of the wastewater pond will not be required. The wastewater pond shall be monitored for the parameters specified below.

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Freeboard	0.1 feet	Measurement	Weekly	Monthly
Odors	--	Observation	Weekly	Monthly
Dissolved Oxygen <sup>1</sup>	mg/l	Grab	Weekly	Monthly
BOD	mg/L	Grab	Weekly <sup>2</sup>	Monthly
Nitrate as Nitrogen	mg/L	Grab	Weekly <sup>2</sup>	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Weekly <sup>2</sup>	Monthly
pH	S.U.	Grab	Weekly <sup>2</sup>	Monthly
Total Dissolved Solids	mg/L	Grab	Weekly <sup>2</sup>	Monthly

- <sup>1</sup> Samples shall be collected at a depth of one foot, opposite the inlet. Samples shall be collected between 0700 and 0900 hours.
- <sup>2</sup> Monitoring for these constituents must be conducted for three consecutive weeks only.

### GROUNDWATER MONITORING

The following monitoring requirement is only necessary if the Discharger installs groundwater monitoring wells as a result of the Effluent Evaluation. If wells are installed, then this program shall be effective beginning with second quarter of 2006.

Prior to construction and/or sampling of any groundwater monitoring wells, the Discharger shall submit plans and specifications to the Regional Board for review and approval. Once installed, all new wells shall be added to the MRP and shall be sampled and analyzed according to the schedule below.

Prior to sampling, the groundwater elevations shall be measured and the wells shall be purged at least three well volumes until temperature, pH and electrical conductivity have stabilized. Depth to groundwater shall be measured to the nearest 0.01 feet. Samples shall be collected using standard EPA methods. Groundwater monitoring shall include, at a minimum, the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency<sup>1</sup></u>	<u>Reporting Frequency<sup>1</sup></u>
Depth to Groundwater	0.01 ft	Measurement	Quarterly	Quarterly
Groundwater Elevation <sup>2</sup>	0.01 ft	Calculated	Quarterly	Quarterly
Gradient	ft/ft	Calculated	Quarterly	Quarterly
Gradient Direction	Degrees	Calculated	Quarterly	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Nitrate as Nitrogen	mg/L	Grab	Quarterly	Quarterly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency<sup>1</sup></u>	<u>Reporting Frequency<sup>1</sup></u>
Total Kjeldahl Nitrogen	mg/L	Grab	Quarterly	Quarterly
PH	pH units	Grab	Quarterly	Quarterly
Standard Minerals <sup>3</sup>	mg/L	Grab	Annual <sup>4</sup>	Annual <sup>4</sup>

<sup>1</sup> Beginning the 2<sup>nd</sup> Quarter of 2006

<sup>2</sup> Groundwater elevation shall be determined based on depth-to-water measurements using a surveyed measuring point elevation on the well and a surveyed reference elevation.

<sup>3</sup> Standard Minerals shall include, at a minimum, the following elements/compounds: Boron, Calcium, Chloride, Iron, Manganese, Magnesium, Potassium, Sodium, Sulfate, Total Alkalinity (including alkalinity series), and Hardness.

<sup>4</sup> Annual samples shall be collected in the fourth quarter (October - December) sampling event.

## REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., influent, wastewater pond, groundwater), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required by the Monitoring and Reporting Program shall be reported to the Regional Board.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all groundwater monitoring reports shall be prepared under the direct supervision of a California Registered Engineer or Geologist and signed by the registered professional.

### A. Monthly Monitoring Reports

Daily, weekly, and monthly monitoring data shall be reported in monthly monitoring reports. Monthly reports shall be submitted to the Regional Board on the **1<sup>st</sup> day of the second month following sampling** (i.e. the January Report is due by 1 March). Reports shall be submitted even if wastewater was not generated during that reporting period. If wastewater was not generated during the period, the report should so state, and provide the date when wastewater was last discharged and the anticipated date when discharge will be resumed. During reporting periods when wastewater is generated, the reports shall, at a minimum, include:

1. Results of influent and wastewater pond monitoring;
2. A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements. Data shall be presented in tabular format;
3. If requested by staff, copies of laboratory analytical report(s); and
4. A calibration log verifying calibration of all hand-held monitoring instruments and devices used to comply with the prescribed monitoring program.

## **B. Quarterly Monitoring Reports**

If groundwater monitoring wells are installed, then the Discharger shall submit quarterly monitoring reports. The Discharger shall establish a quarterly sampling schedule for groundwater monitoring such that samples are obtained approximately every three months. Quarterly reports shall be submitted to the Regional Board on the **1<sup>st</sup> day of the second month after the quarter** (i.e. the January – March quarterly report is due by 1 May) and may be combined with the monthly report. The Quarterly Report shall include the following:

1. Results of groundwater monitoring;
2. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the groundwater monitoring. The narrative shall be sufficiently detailed to verify compliance with the WDR, this MRP, and the Standard Provisions and Reporting Requirements. The narrative shall be supported by field logs for each well documenting depth to groundwater; parameters measured before, during, and after purging; method of purging; calculation of casing volume; and total volume of water purged;
3. Calculation of groundwater elevations, an assessment of groundwater flow direction and gradient on the date of measurement, comparison of previous flow direction and gradient data, and discussion of seasonal trends if any;
4. A narrative discussion of the analytical results for all groundwater locations monitored including spatial and temporal trends, with reference to summary data tables, graphs, and appended analytical reports (as applicable);
5. A comparison of monitoring data to the groundwater limitations and an explanation of any violation of those requirements;
6. Summary data tables of historical and current water table elevations and analytical results;
7. A scaled map showing relevant structures and features of the facility, the locations of monitoring wells and any other sampling stations, and groundwater elevation contours referenced to mean sea level datum;
8. Copies of laboratory analytical report(s) for groundwater monitoring.

## **C. Annual Report**

An Annual Report shall be prepared as the December monthly monitoring report. The Annual Report will include all monitoring data required in the monthly/quarterly schedule. The Annual Report shall be submitted to the Regional Board by **1 February** each year. In addition to the data normally presented, the Annual Report shall include the following:

1. The contents of the regular monthly monitoring report, and if applicable, the groundwater monitoring report for the last sampling event of the year;
2. If requested by staff, tabular and graphical summaries of all data collected during the year;

3. If applicable, an evaluation of the groundwater quality beneath the wastewater treatment facility;
4. A discussion of compliance and the corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements;
5. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program;
6. Summary of information on the disposal of rice derived solid waste;
7. If applicable, the results from annual monitoring of the groundwater wells.

A letter transmitting the self-monitoring reports shall accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the penalty of perjury statement by the Discharger, or the Discharger's authorized agent, as described in the Standard Provisions General Reporting Requirements Section B.3.

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

Ordered by: \_\_\_\_\_  
THOMAS R. PINKOS, Executive Officer

9 July 2004  
\_\_\_\_\_  
(Date)

jrm: 7/9/04

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2004-0105

FOR

ERICKSON PROCESSING, INC.  
GIBBS CALIFORNIA WILD RICE  
SUTTER COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for the monitoring of wastewater influent, the wastewater pond, and groundwater. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer. Regional Board staff shall approve specific sample station locations prior to implementation of sampling activities.

All samples should be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each sample shall be recorded on the sample chain of custody form.

Field test instruments (such as those used to test pH and dissolved oxygen) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated prior to each monitoring event;
3. Instruments are serviced and/or calibrated by the manufacturer, or manufacturer approved repair shop, at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

Monitoring reports must be submitted every month throughout the year, even if no discharge occurs.

**INFLUENT MONITORING**

Wastewater influent monitoring shall be conducted prior to discharge into the wastewater pond. Influent monitoring shall include, at a minimum, the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow	gpd	Estimation <sup>1</sup>	Daily	Monthly

<sup>1</sup>The method for estimating wastewater flow shall be described in a letter prescribed by Provision F.2.a of the WDRs

### WASTEWATER POND MONITORING

The wastewater pond shall be monitored if the maximum depth of wastewater in the pond is one foot or greater. If the pond is dry or maximum depth of wastewater is less than one foot, then the monitoring report shall so note, and monitoring of the wastewater pond will not be required. The wastewater pond shall be monitored for the parameters specified below.

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Freeboard	0.1 feet	Measurement	Weekly	Monthly
Odors	--	Observation	Weekly	Monthly
Dissolved Oxygen <sup>1</sup>	mg/l	Grab	Weekly	Monthly
BOD	mg/L	Grab	Weekly <sup>2</sup>	Monthly
Nitrate as Nitrogen	mg/L	Grab	Weekly <sup>2</sup>	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Weekly <sup>2</sup>	Monthly
pH	S.U.	Grab	Weekly <sup>2</sup>	Monthly
Total Dissolved Solids	mg/L	Grab	Weekly <sup>2</sup>	Monthly

- <sup>1</sup> Samples shall be collected at a depth of one foot, opposite the inlet. Samples shall be collected between 0700 and 0900 hours.
- <sup>2</sup> Monitoring for these constituents must be conducted for three consecutive weeks only.

### GROUNDWATER MONITORING

The following monitoring requirement is only necessary if the Discharger installs groundwater monitoring wells as a result of the Effluent Evaluation. If wells are installed, then this program shall be effective beginning with second quarter of 2006.

Prior to construction and/or sampling of any groundwater monitoring wells, the Discharger shall submit plans and specifications to the Regional Board for review and approval. Once installed, all new wells shall be added to the MRP and shall be sampled and analyzed according to the schedule below.

Prior to sampling, the groundwater elevations shall be measured and the wells shall be purged at least three well volumes until temperature, pH and electrical conductivity have stabilized. Depth to groundwater shall be measured to the nearest 0.01 feet. Samples shall be collected using standard EPA methods. Groundwater monitoring shall include, at a minimum, the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency<sup>1</sup></u>	<u>Reporting Frequency<sup>1</sup></u>
Depth to Groundwater	0.01 ft	Measurement	Quarterly	Quarterly
Groundwater Elevation <sup>2</sup>	0.01 ft	Calculated	Quarterly	Quarterly
Gradient	ft/ft	Calculated	Quarterly	Quarterly
Gradient Direction	Degrees	Calculated	Quarterly	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Nitrate as Nitrogen	mg/L	Grab	Quarterly	Quarterly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency<sup>1</sup></u>	<u>Reporting Frequency<sup>1</sup></u>
Total Kjeldahl Nitrogen	mg/L	Grab	Quarterly	Quarterly
PH	pH units	Grab	Quarterly	Quarterly
Standard Minerals <sup>3</sup>	mg/L	Grab	Annual <sup>4</sup>	Annual <sup>4</sup>

<sup>1</sup> Beginning the 2<sup>nd</sup> Quarter of 2006

<sup>2</sup> Groundwater elevation shall be determined based on depth-to-water measurements using a surveyed measuring point elevation on the well and a surveyed reference elevation.

<sup>3</sup> Standard Minerals shall include, at a minimum, the following elements/compounds: Boron, Calcium, Chloride, Iron, Manganese, Magnesium, Potassium, Sodium, Sulfate, Total Alkalinity (including alkalinity series), and Hardness.

<sup>4</sup> Annual samples shall be collected in the fourth quarter (October - December) sampling event.

## REPORTING

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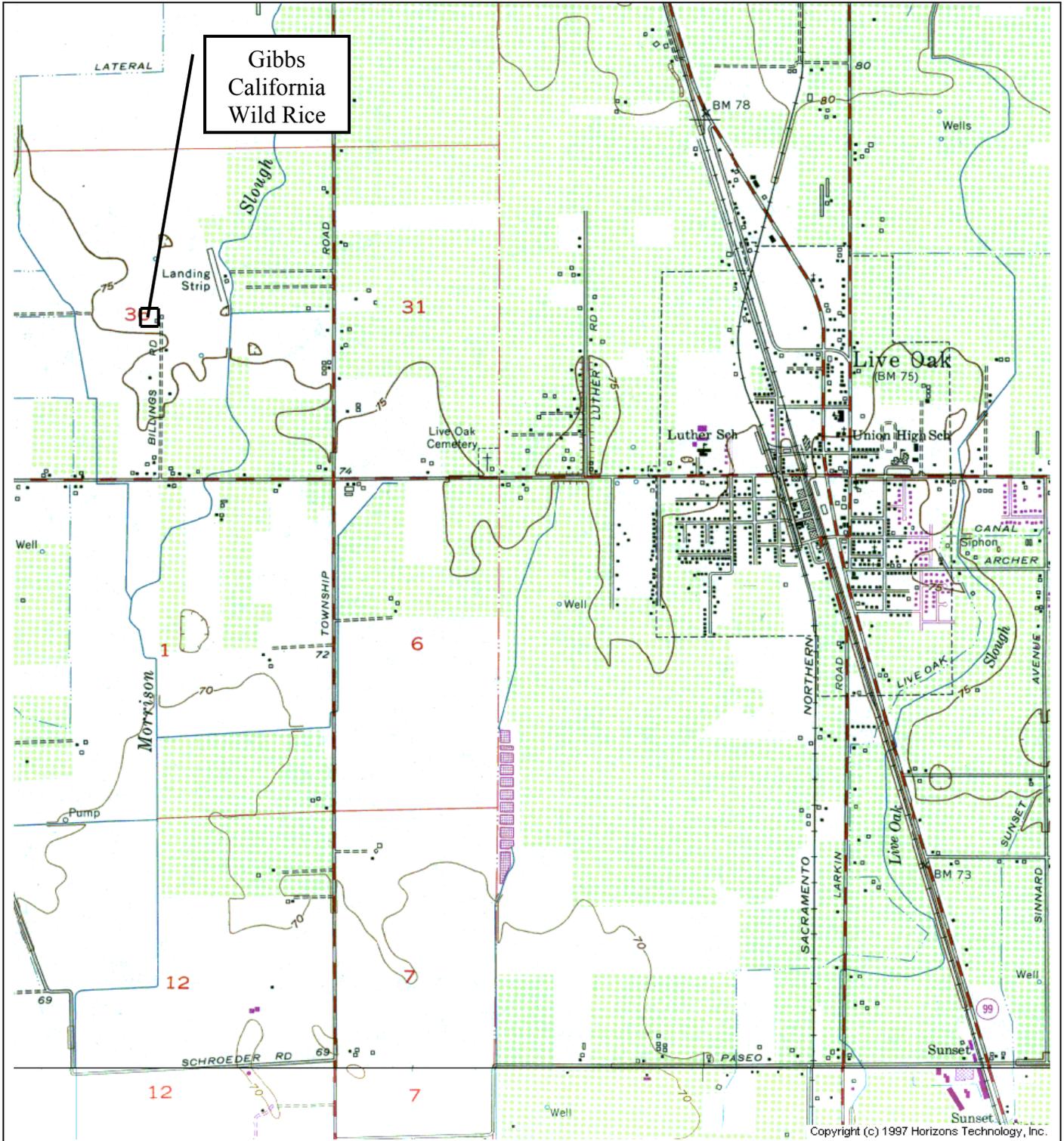
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The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by: \_\_\_\_\_  
THOMAS R. PINKOS, Executive Officer

\_\_\_\_\_  
9 July 2004  
(Date)

jrm: 7/9/04



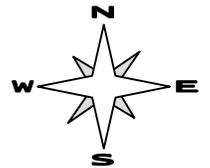
Copyright (c) 1997 Horizons Technology, Inc.

**Drawing Reference:**

GRIDLEY  
U.S.G.S TOPOGRAPHIC MAP  
7.5 MINUTE QUADRANGLE

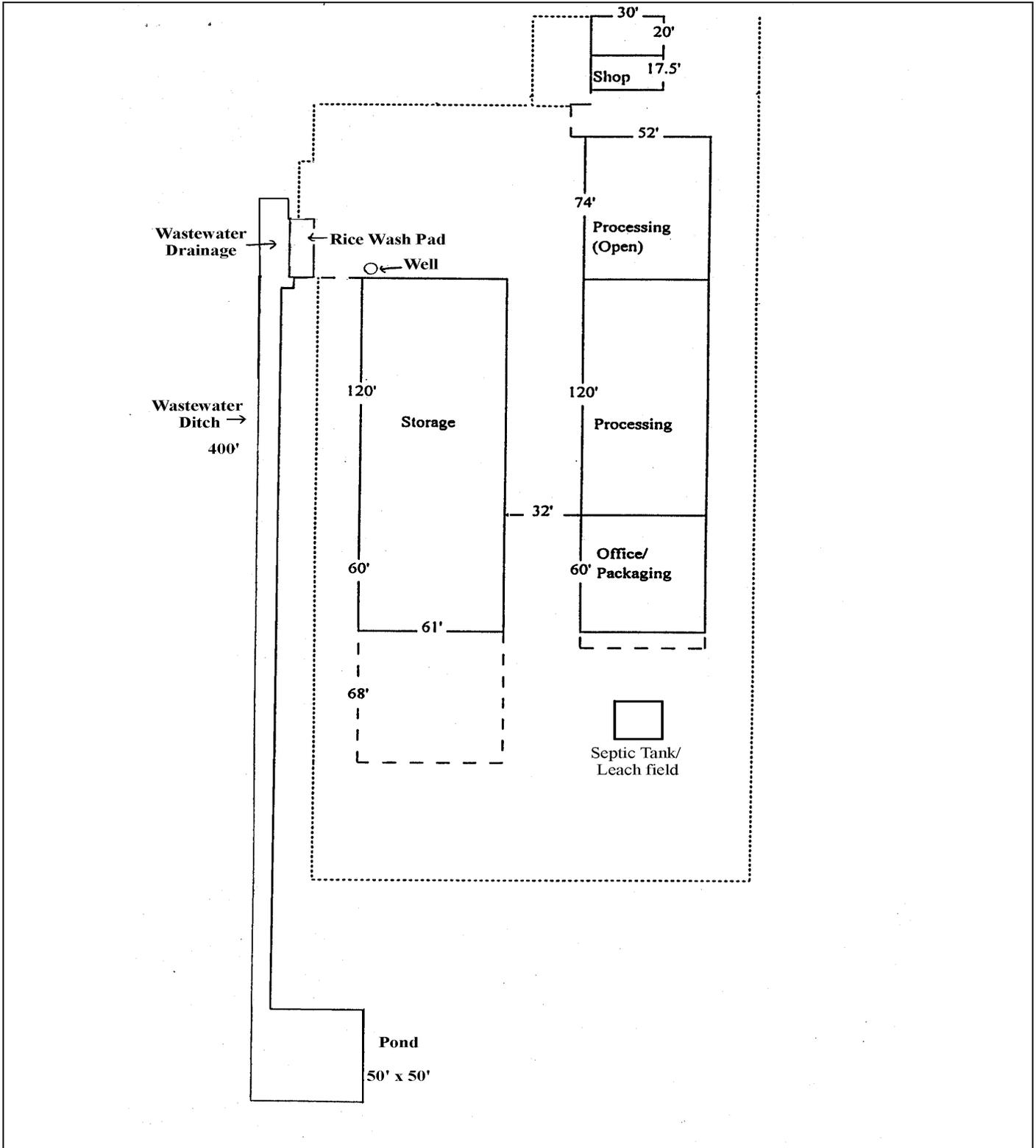
**LOCATION MAP**

ERICKSON PROCESSING, INC.  
GIBBS CALIFORNIA WILD RICE  
Sutter County



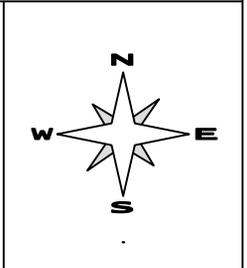
approx. scale  
1 in. = 2,250 ft.





**Drawing Reference:**  
LARRY ERICKSON

**SITE MAP**  
ERICKSON PROCESSING, INC.  
GIBBS CALIFORNIA WILD RICE  
Sutter County



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# California Regional Water Quality Control Board

## Central Valley Region



Terry Tamminen  
Secretary for  
Environmental  
Protection

Robert Schneider, Chair

Arnold Schwarzenegger  
Governor

Sacramento Main Office  
Internet Address: <http://www.swrcb.ca.gov/rwqcb5>  
11020 Sun Center Drive #200 Rancho Cordova, CA 95670-6114  
Phone (916) 464-3291

### ORDER NO. R5-2004-0105

#### ATTACHMENT C

#### REQUIREMENTS FOR

#### MONITORING WELL INSTALLATION WORKPLAN AND

#### MONITORING WELL INSTALLATION REPORT

Prior to installation of groundwater monitoring wells, the Discharger shall submit a workplan containing, at a minimum, the information listed in Section 1, below. Wells may be installed after staff approves the workplan. Upon installation of the monitoring wells, the Discharger shall submit a well installation report, which includes the information contained in Section 2, below. All workplans and reports must be prepared under the direction of, and signed by, a registered geologist or civil engineer licensed by the State of California.

#### SECTION 1 - Monitoring Well Installation Workplan and Groundwater Sampling and Analysis Plan

The monitoring well installation workplan shall contain the following minimum information:

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions
- Proposed monitoring well locations and rationale for well locations
- Topographic map showing facility location, roads, and surface water bodies
- Large scaled site map showing all existing on-site wells, proposed wells, surface drainage courses, surface water bodies, buildings, waste handling facilities, utilities, and major physical and man-made features

B. Drilling Details:

- On-site supervision of drilling and well installation activities
- Description of drilling equipment and techniques
- Equipment decontamination procedures
- Soil sampling intervals (if appropriate) and logging methods

C. Monitoring Well Design (in narrative and/or graphic form):

- Diagram of proposed well construction details
  - Borehole diameter
  - Casing and screen material, diameter, and centralizer spacing (if needed)
  - Type of well caps (bottom cap either screw on or secured with stainless steel screws)
  - Anticipated depth of well, length of well casing, and length and position of perforated interval
  - Thickness, position and composition of surface seal, sanitary seal, and sand pack

***California Environmental Protection Agency***

- Anticipated screen slot size and filter pack

D. Well Development (not to be performed until at least 48 hours after sanitary seal placement):

- Method of development to be used (i.e., surge, bail, pump, etc.)
- Parameters to be monitored during development and record keeping technique
- Method of determining when development is complete
- Disposal of development water

E. Well Survey (precision of vertical survey data shall be at least 0.01 foot):

- Identify the Licensed Land Surveyor or Civil Engineer that will perform the survey
- Datum for survey measurements
- List well features to be surveyed (i.e. top of casing, horizontal and vertical coordinates, etc.)

F. Schedule for Completion of Work

G. **Appendix: Groundwater Sampling and Analysis Plan (SAP)**

The Groundwater SAP shall be included as an appendix to the workplan, and shall be utilized as a guidance document that is referred to by individuals responsible for conducting groundwater monitoring and sampling activities.

Provide a detailed written description of standard operating procedures for the following:

- Equipment to be used during sampling
- Equipment decontamination procedures
- Water level measurement procedures
- Well purging (include a discussion of procedures to follow if three casing volumes cannot be purged)
- Monitoring and record keeping during water level measurement and well purging (include copies of record keeping logs to be used)
- Purge water disposal
- Analytical methods and required reporting limits
- Sample containers and preservatives
- Sampling
  - General sampling techniques
  - Record keeping during sampling (include copies of record keeping logs to be used)
  - QA/QC samples
- Chain of Custody
- Sample handling and transport

## **SECTION 2 - Monitoring Well Installation Report**

The monitoring well installation report must provide the information listed below. In addition, the report must also clearly identify, describe, and justify any deviations from the approved workplan.

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions encountered during installation of the wells

Number of monitoring wells installed and copies of County Well Construction Permits  
Topographic map showing facility location, roads, surface water bodies  
Scaled site map showing all previously existing wells, newly installed wells, surface water bodies, buildings, waste handling facilities, utilities, and other major physical and man-made features.

B. Drilling Details (in narrative and/or graphic form):

On-site supervision of drilling and well installation activities

Drilling contractor and driller's name

Description of drilling equipment and techniques

Equipment decontamination procedures

Soil sampling intervals and logging methods

Well boring log

- Well boring number and date drilled
- Borehole diameter and total depth
- Total depth of open hole (same as total depth drilled if no caving or back-grouting occurs)
- Depth to first encountered groundwater and stabilized groundwater depth
- Detailed description of soils encountered, using the Unified Soil Classification System

C. Well Construction Details (in narrative and/or graphic form):

Well construction diagram, including:

- Monitoring well number and date constructed
- Casing and screen material, diameter, and centralizer spacing (if needed)
- Length of well casing, and length and position of perforated interval
- Thickness, position and composition of surface seal, sanitary seal, and sand pack
- Type of well caps (bottom cap either screw on or secured with stainless steel screws)

E. Well Development:

Date(s) and method of development

How well development completion was determined

Volume of water purged from well and method of development water disposal

Field notes from well development should be included in report

F. Well Survey (survey the top rim of the well casing with the cap removed):

Identify the coordinate system and datum for survey measurements

Describe the measuring points (i.e. ground surface, top of casing, etc.)

Present the well survey report data in a table

Include the Registered Engineer or Licensed Surveyor's report and field notes in appendix