

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2005-0026

WASTE DISCHARGE REQUIREMENTS
FOR
WAL-MART STORES EAST, L.P.
WAL-MART DISTRIBUTION CENTER NO. 26
TEHAMA COUNTY

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

1. Wal-Mart Stores East, L.P., a Delaware limited partnership, (hereafter Discharger) submitted a Report of Waste Discharge (RWD), dated 21 July 2003 and revised RWD dated 2 September 2003 for updating Waste Discharge Requirements (WDRs) for the Wal-Mart Distribution Center No. 26.
2. On 11 December 1998, the Regional Board adopted WDRs Order No. 98-235, NPDES No. CA0083186, which prescribed requirements for domestic waste, truck wash water and storm water discharges. Order No. 98-235 is neither adequate nor consistent with the current plans and policies of the Regional Board.
3. Wal-Mart owns and operates a distribution center for consumer goods on Highway 99 West, approximately 3 miles south of Red Bluff in Tehama County. The 1.1 million-square-foot warehouse is on a 216-acre property (Assessor's Parcel Nos. 35-050-1, 35-050-2, and 35-05-3) as shown on Attachment A, which is attached hereto and made part of this Order by reference. Surface drainage is to Coyote Creek, a tributary to the Sacramento River. The site lies within the Red Bluff hydrologic unit/area/subarea (No. 504.2) as depicted on interagency hydrologic maps prepared by the Department of Water Resources in August 1986.
4. The facility consists of the warehouse, offices, cafeteria, showers, 55 acres of paved parking, wastewater treatment plant, two evaporation/percolation ponds, six underground storage tanks, maintenance workshop, truck wash, fueling station, and three large storm water ponds as shown on Attachment B, which is attached hereto and made part of this Order by reference. Wastes generated at the facility include domestic waste, leaks/drips from refueling vehicles, truck wash water, and storm water runoff. Fuel island wash water and truck wash water are pretreated before being routed to the wastewater treatment plant. With the exception of storm water runoff which discharges to an unnamed tributary of Coyote Creek, all wastes are treated at the on-site wastewater treatment plant. The wastewater treatment plant is currently operated by ECO-Resources under contract. The wastewater treatment plant serves approximately 1,100 workers including 225 truck drivers.
5. The wastewater treatment plant consists of: deep wet well, 40,000-gallon equalization tank, aeration tank, aerobic digester (former aeration tank), two 10 ft diameter clarifiers, and a chlorine contact chamber, as shown on Attachment C, which is attached hereto and made part of this Order by reference. One of the clarifiers is used as a sludge thickener. Treated effluent is routed to two on-site evaporation/percolation ponds (Ponds 1 and 2), each approximately

7 acres in size. The evaporation/percolation ponds are not lined and are constructed with native materials, fine-grained silt and/or clay, and rock. Use of the ponds is alternated annually. There is currently no groundwater monitoring of these ponds. Between Ponds 1 and 2 is an evaporative irrigation system, which was intended to allow pond water to be sprayed on the pond banks (referred to in this Order as the "irrigation area") thereby increasing the evaporation rate and available pond capacity. The irrigation system is generally used during periods of extremely high rainfall.

6. The second aeration tank has been converted to an aerobic digester and the second clarifier has been converted to a sludge thickener. Depending on its thickness, clarifier sludge is either returned to the first aeration tank (as return activated sludge) or discharged to the aerobic digester and then the sludge thickener. From the sludge thickener, sludge is transported to a sludge holding tank. The sludge has a low solids content (approximately 2 percent) and is trucked monthly to the sludge drying beds at the City of Corning Wastewater Treatment Plant.
7. Flow rates to the wastewater treatment plant vary greatly depending on the number of employees working at the facility. During January to August 2004 flows have ranged from 1,176 to 20,913 gallons per day (gpd) with most flows generally between 4,000 to 12,000 gpd.
8. Drips/leaks and incidental wash water generated at the fuel island are also discharged to the wastewater treatment plant. This refueling area consists of a covered structure with two bays and floor drains in each bay. Windshields and truck headlights are washed here while the trucks are refueled. Wash water containing detergents that comes into contact with any oil/grease/fuel is discharged to the floor drains. The wash water is collected in a sump and pumped through a clay filter pretreatment system mounted on the west side of the bay before being routed to the wastewater treatment plant. Total petroleum hydrocarbon (TPH) and oil and grease concentrations of the discharge from the fuel island after pretreatment are summarized below:

Fuel Island Discharge Concentrations (mg/L)

| <u>Parameter</u> | <u>Concentration Range</u> | <u>Average</u> |
|-----------------------|----------------------------|----------------|
| Oil and Grease (mg/L) | 5 to 94 | 25 |
| TPH (mg/L) | ND to 51 | 8.6 |

9. In June 2002 the Discharger replaced their total recycle truck wash system with a partial recycle system because the total recycle system was not adequately cleaning vehicles. The new system routes approximately 5 to 10 percent of the wash water generated to the wastewater treatment plant. The Discharger estimates that approximately 400 gallons of water are used to wash each truck and that 90 to 95 percent of the wash water continues to be recycled, resulting in 400 to 500 gallons per day of wash water routed to the wastewater treatment plant. Measurement of flows performed in October and November 2004 indicated that daily flows ranged from 42 to 1002 gallons with an average of 315 gallons. Sediment, oils, greases, and other petroleum products are concentrated in the primary collection center of the wash bay.

Prior to exiting the truck wash area, wash water is treated through a series of three biological tanks, two filters, and an air injector, which are shown in the process schematic in Attachment C. The primary collection center is pumped approximately every three months by Combs Environmental. The concentrations of constituents of concern in the truck wash water discharged to the wastewater treatment plant are summarized below:

Truck Wash Discharge Concentrations

| <u>Parameter</u> | <u>Concentration Range</u> |
|-------------------------------|----------------------------|
| Oil and Grease (mg/L) | 8 to 79 |
| Total Suspended Solids (mg/L) | 43 to 102 |
| Diesel (ug/L) | 7,220 to 25,200 |

10. Results of wastewater treatment plant influent and effluent sampling performed in accordance with the Discharger’s monitoring and reporting program and/or at the request of Regional Board staff are summarized below.

Wastewater Treatment Plant Influent and Effluent Concentrations

| <u>Parameter</u> | <u>Influent</u> | <u>Effluent</u> |
|----------------------------|-----------------|-----------------|
| BOD (mg/L) ¹ | 70 to 525 | <2 to 61 |
| TSS (mg/L) ¹ | 128 to 1063 | 3 to 68 |
| Diesel (ug/L) ² | - | 66 to 191 |

¹ From January to August 2004

² From May to June 2004

11. The pretreatment processes at the truck wash and the fuel island are not adequately controlling diesel, and oil and grease prior to discharge to the wastewater treatment plant. Additionally, the wastewater treatment plant was not designed to adequately treat these wastes. Results presented in Finding Nos. 10 to 12 and 31 to 40 document these concerns. Failure to adequately pretreat these internal waste streams at the source results in elevated concentrations of oil and grease, and/or diesel in the wastewater treatment plant effluent, as presented in Finding No. 12, and/or in the sludge, as presented below.

Wastewater Treatment Plant Sludge Concentrations

| <u>Parameter</u> | <u>Concentration Range</u> | <u>Average</u> |
|-----------------------|----------------------------|----------------|
| Oil and Grease (mg/L) | 69 to 2,020 | 819 |
| TPH (mg/L) | ND to 1,210 | 280 |
| Diesel (ug/L) | 5,760 to 7,060 | NA |

“NA” indicates Not Applicable (data too sparse)

The presence of petroleum compounds in the effluent has the potential to impact wastewater treatment processes and groundwater beneath the on-site evaporation/percolation ponds.

12. Storm water runoff from the warehouse and uncovered truck parking area discharge to one of three ponds (Ponds A, B, and C). Storm water from these ponds is discharged to a surface

- drainage tributary of Coyote Creek. From 1998 to 2004 discharge from these ponds was regulated under a National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CA0083186, Order No. 98-235). Because the storm water does not contain process water and because historical storm water sampling demonstrates that storm water leaving the facility is generally free of pollutants, it has been determined that storm water runoff would be more appropriately regulated under the General Industrial Storm Water Permit. Consequently, the NPDES permit for this facility is not being renewed.
13. Federal regulations for storm water discharges were promulgated by the U.S. Environmental Protection Agency on 16 November 1990 (40 CFR Parts 122, 123, and 124). The State Board adopted Order No. 97-03-DWQ (General Permit No. CAS000001) specifying waste discharge requirements for discharges of storm water associated with industrial activities, and requiring submittal of a Notice of Intent by all affected industrial dischargers. The Discharger is required to obtain coverage under General Permit No. CAS000001.
 14. The provisions of this Order require the Discharger shall submit a Notice of Intent to obtain coverage under that General Industrial Storm Water permit for the off-site discharge of industrial storm water runoff.
 15. There are six underground double wall fiberglass petroleum tanks at the facility. The fueling station is served by four 12,000-gallon diesel tanks. The other two tanks contain new and used oil and have capacities of 6,000 and 2,500 gallons, respectively. Each tank is equipped with spill/overflow protection. The tank lines and pumps have line leak detectors.
 16. The Discharger has the following documents available on-site: the Tehama County Underground Storage Tank Compliance Certificate, their Storm Water Pollution Prevention Plan dated February 1994, and the Spill Prevention Control and Countermeasure Plan (SPCCP) dated April 2003.
 17. The average annual precipitation for this area is approximately 20 inches based on rainfall data. Evapotranspiration rates for the area are in excess of 60 inches per year.
 18. All portions of the facility are outside the 100-year flood zone.
 19. Soils in the area consist of Redding loam, Arbuckle gravelly, and Hillgate silty loams, which are moderately deep to shallow claypan or hardpan and have low to very low permeabilities. There are no groundwater monitoring wells at the facility; however depth to groundwater at a nearby facility is approximately 65 to 70 feet below ground surface (ft bgs).
 20. Drinking water for the facility is from an on-site well (north well) that is drilled to a depth of 480 feet. The drinking water from this well is chlorinated prior to use. An emergency fire well (south well), drilled to a depth of 450 feet, is also maintained by the Discharger. The pumps in the north well and south well are placed at 280 and 220 ft bgs, respectively and are operated at approximately 1,100 to 1,200 gallons per minute.
 21. There are no shallow on-site groundwater monitoring wells and no information currently exists regarding the shallow groundwater underlying the evaporation/percolation ponds. In order to

determine compliance with the Groundwater Limitations of this Order, the Discharger is required to install and sample groundwater monitoring wells.

Basin Plan and Beneficial Uses Considerations

22. 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 Board. Pursuant to Section 13263(a) of the California Water Code, waste discharge requirements must implement the Basin Plan.
23. Surface water drainage from the facility is to an unnamed tributary of Coyote Creek, which is a tributary of the Sacramento River.
24. The beneficial uses of the Sacramento River are municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND) and power generation (POW); water contact recreation (REC-1); noncontact water recreation (REC-2); warm freshwater habitat (WARM), cold freshwater habitat (COLD); warm and cold aquatic organism migration (MIGR), spawning (SPWN); wildlife habitat (WILD); and navigation (NAV).

Groundwater Degradation Analysis

25. The beneficial uses of underlying groundwater are municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply.
26. Basin Plan water quality objectives to protect the beneficial uses of groundwater include numeric objectives and narrative objectives, including objectives for chemical constituents, toxicity of groundwater, and taste and odor. The toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans, plants, or animals. The chemical constituent objective states groundwater shall not contain chemical constituents in concentrations that adversely affect any beneficial use or that exceed the maximum contaminant levels (MCLs) in Title 23, CCR. The Basin Plan requires the application of the most stringent objective necessary as necessary to ensure that groundwaters do not contain chemical constituents, toxic substances, radionuclides, or taste and odor producing substances in concentrations that adversely affect domestic drinking water supply, agricultural supply, or any other beneficial use.
27. State Water Resources Control Board (SWRCB) Resolution No. 68-16 ("Policy with Respect to Maintaining High Quality Waters of the State") (hereafter Resolution 68-16) requires a regional board in regulating the discharge of waste to maintain high quality waters of the state (i.e., background water quality) 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 as described in plans and policies. The discharge is required to meet waste discharge requirements that will result in the Best

Practicable Treatment or Control (BPTC) of the discharge necessary to assure that pollution or nuisance will not occur and highest water quality consistent with maximum benefit to the people will be maintained.

28. The Regional Board has considered Resolution 68-16 and finds that the current discharge is inconsistent with this policy, and could cause an increase in groundwater constituent concentrations above water quality objectives in the groundwater beneath the on-site evaporation/percolation ponds. Although groundwater impacts have not been evaluated, it has also not been demonstrated that degradation of groundwater by this discharge would be consistent with the maximum benefit to the people of the State. Therefore to assure that the discharge, as permitted herein, is consistent with Resolution 68-16, the Discharger is required to propose and fully implement BPTC measures so that the discharge does not create a condition of pollution or nuisance and that the highest water quality will be maintained.
29. Minimal treatment of petroleum is performed at the truck wash and the fuel island. Consequently, internal waste streams from the truck wash and fuel island contain elevated levels of petroleum hydrocarbons including diesel (up to 25,200 ug/L in truck wash discharge), oil and grease (up to 94 mg/L in fuel island discharge). These waste streams are routed to the wastewater treatment plant.
30. The wastewater treatment plant was not designed or intended to treat petroleum hydrocarbons. While a large fraction of the diesel, oil and grease becomes entrained in the sludge, diesel has also been measured in the effluent at elevated concentrations (up to 191 ug/L in effluent). Because the effluent is disposed at on-site evaporation/percolation ponds, the presence of petroleum hydrocarbons in the effluent represents a potential threat to groundwater beneath the facility. This Order requires the Discharger to prevent pollution, nuisance, or contamination, and requires the Discharger to appropriately operate and maintain the systems, specifically the pre-treatment systems at the truck wash and fuel island, consistent with CWC section 13282. In addition, this Order includes provisions to implement Resolution 68-16.
31. The Discharger is in the process of soliciting proposals to upgrade or replace the current pretreatment systems at the fuel island and the truck wash. Within the first six months of adoption of this Order, the Discharger intends to characterize the waste stream(s), conduct a treatability study, design and install an appropriate treatment system, and perform necessary startup testing.
32. At the facility, the second clarifier is used as a sludge thickener. However, the resulting sludge is still high in moisture content (two percent solids). There is only minimal sludge treatment performed at the facility, i.e. no sludge drying beds or belt presses. Sludge from the facility had initially been disposed at a local septage facility. However, in April 2000 Regional Board staff informed the Discharger that because the septage facility was not authorized to accept waste other than septage, the disposal of their sludge, which contained oil and grease from the fuel island, was not acceptable. Consequently, the Discharger began trucking approximately 3,000 gallons per month of sludge to the City of Corning's Wastewater Treatment Plant.

There, sludge is dried in asphalt-lined drying beds, each approximately 150,000 gallons in size. Dried solids are trucked to the Ostrom Landfill in Wheatland, California.

33. Elevated concentrations of petroleum hydrocarbons have been measured in the sludge generated at the wastewater treatment plant. Oil and grease was measured in the sludge up to 2,020 mg/L, and diesel up to 7,060 ug/L. The application of the Discharger's sludge at the City of Corning's sludge drying beds may result in percolation of pollutants and an increase in the concentration of petroleum hydrocarbons to the groundwater beneath the sludge drying beds.
34. As data are insufficient to establish that the discharge complies with all conditions of Resolution 68-16, a schedule of tasks to improve pretreatment, evaluate sludge handling, and characterize groundwater is appropriate and necessary. The Discharger's current effort does not constitute BPTC as intended in Resolution 68-16.
35. In accordance with this Order, Discharge Limitations for effluent from the wastewater treatment plant to the evaporation/percolation pond are intended to protect groundwater. Therefore they shall be effective upon adoption of this Order. The basis for these Discharge Limitations is presented in Attachment E.
36. The existing truck wash and fuel island pretreatment systems do not adequately pretreat the waste. To meet the effluent Discharge Limitations for petroleum, the Discharger shall design and install improved pretreatment systems at the truck wash and fuel island in accordance with Provision G.1.c. The pretreatment systems shall be designed, installed, operated and maintained to ensure best practicable treatment or control. Failure of the pretreatment systems to achieve best practicable treatment or control may result in the reopening of this Order and the inclusion of numeric pretreatment limitations.
37. This Order also requires the development of a sludge management plan to ensure that management (treatment and disposal) of sludge is consistent with WDRs for this facility. Compliance with Discharge Limitations, completion of tasks described in Provision G.1., and implementation of the approved strategies will ensure that BPTC and the highest water quality consistent with maximum benefit to the people of the State will be achieved. Should full BPTC implementation not be performed, the Regional Board may reopen this Order to reconsider additional groundwater and pretreatment limitations, groundwater monitoring, and other requirements to comply with Resolution 68-16. Accordingly, the discharge is consistent with Resolution 68-16.
38. The discharge authorized herein and the treatment and storage facilities associated with the discharge of treated municipal wastewater, except for discharges of residual sludge and solid waste, are exempt from the requirements of Title 27, California Code of Regulations (CCR), section 20005 et seq. (hereafter Title 27). The exemption, pursuant to Title 27 CCR section 20090(a), is based on the following:

- a. The waste consists primarily of domestic sewage and treated effluent;
 - b. The waste discharge requirements are consistent with water quality objectives; and
 - c. The treatment and storage facilities described herein are associated with a municipal wastewater treatment plant.
39. State regulations pertaining to water quality monitoring for waste management units are found in Title 27, CCR, Section 20380 et seq. These regulations prescribe procedures for detecting and characterizing the impact of waste constituents on groundwater. While the facility has been found exempt from Title 27, the data analysis methods of Title 27 are appropriate for determining whether the discharge complies with the terms for protection of groundwater specified in this Order. As long as the discharge complies with these waste discharge requirements, the exemption remains warranted.
40. This Order requires the Discharger to perform groundwater monitoring in accordance with the attached Monitoring and Reporting Program. The groundwater monitoring reports are necessary to evaluate impacts to waters of the state to assure protection of beneficial uses and compliance with Regional Board plans and policies, including Resolution 68-16. Evidence in the record includes effluent monitoring data that indicates the presence of constituents that may degrade groundwater and surface water.
41. The Regional Board has considered antidegradation pursuant to Resolution 68-16 and finds that the current discharge is inconsistent with those provisions, and could cause an increase in groundwater constituents, specifically petroleum hydrocarbons above that of the allowable limitation prescribed in the Basin Plan. Degradation of groundwater by this discharge is not consistent with maximum benefit to the people of the State. Therefore, discharge limitations are necessary for the discharge to be in accordance with the Basin Plan requirements. The discharge as permitted herein is consistent with the antidegradation provisions of Resolution 68-16. Compliance with these requirements will result in the use of BPTC of the discharge. The discharge as permitted will not unreasonably affect present and anticipated beneficial use of underlying groundwater and will not result in water quality less than that described in the Basin Plan. However, to assure this the Discharger is required to propose and implement BPTC measures so that the discharge does not create a condition of pollution or nuisance and that the highest water quality will be maintained.
42. The DWR 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.

Other Regulatory Considerations

43. The action to update WDRs for this existing facility is exempt from the provisions of the California Environmental Quality Act (CEQA), in accordance Title 14, California Code of Regulations (CCR), Section 15301.

44. Section 13267(b) of the CWC 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 technical reports required by this Order and the attached “Monitoring and Reporting Program No. R5-2005-0026” are necessary to assure compliance with these waste discharge requirements. The Discharger operates facilities that discharge waste subject to this Order.

45. 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.
46. 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.
47. All comments pertaining to the discharge were heard and considered in a public meeting.

IT IS HEREBY ORDERED that Order No. 98-235 (NPDES No. CA0083186) is rescinded and, pursuant to Sections 13263 and 13267 of the California Water Code, Wal-Mart Stores East, L.P., Inc., their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following:

A. Discharge Prohibitions

1. Discharge of wastes, other than storm water, to surface waters or surface water drainage courses is prohibited.
2. Bypass or overflow of untreated or partially treated waste is prohibited.
3. Discharge of waste from a sanitary sewer system at any point upstream of the treatment plant is prohibited. Discharge of treated wastewater downstream of the treatment plant, other than at the approved evaporation/percolation ponds or irrigation area, is prohibited.

4. 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.
5. Surfacing of wastewater outside or downgradient of the evaporation/percolation ponds or irrigation area is prohibited.
6. Storm water runoff from the irrigation areas to any surface water drainage course within 48 hours of the last chlorinated wastewater application is prohibited.
7. Runoff from the irrigation area beyond the evaporation/percolation ponds or irrigation area is prohibited.
8. The irrigation of treated wastewater within 48 hours of the last rainfall event, or when rainfall is forecast within the next 48 hours is prohibited.

B. Discharge Specifications:

1. The average monthly dry weather discharge to the wastewater treatment plant shall not exceed 20,000 gpd.
2. Disposal of effluent shall be confined to the designated evaporation/percolation ponds and irrigation areas as defined in this Order.
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 Limitations.
4. Neither the treatment nor the discharge shall cause a nuisance or condition of pollution as defined by the California Water Code, Section 13050.
5. Objectionable odor originating at the facility shall not be perceivable beyond the limits of the wastewater treatment and disposal areas.
6. As a means of discerning compliance with Discharge Specification No.5, the dissolved oxygen content in the upper zone (1 foot) of the evaporation/percolation pond shall not be less than 1.0 mg/L.
7. Public contact with wastewater shall be precluded or controlled through such means as fences and signs, or acceptable alternatives.
8. The Discharger shall operate all systems and equipment to maximize treatment of wastewater and optimize the quality of the discharge.

9. The wastewater treatment, storage, and disposal system shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
10. The evaporation/percolation pond freeboard shall never be less than two feet as measured vertically from the water surface to the lowest point of overflow.
11. The evaporation/percolation ponds shall be managed to prevent the breeding of mosquitoes. In particular,
 - a. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the waste surface.
 - b. Weeds shall be minimized through control of water depth, harvesting, and/or herbicides.
 - c. Dead algae, vegetation, and debris shall not accumulate on the water surface.

C. Pretreatment Limitations

1. Pretreatment systems for the truck wash and fuel island shall be designed, installed, operated and maintained to ensure best practicable treatment or controls are employed. Failure of the pretreatment systems to achieve best practicable treatment or controls, or meet the proposed removal efficiencies and treatment standards to be established in accordance with Provision G.1.c, may result in the reopening of this Order and the inclusion of numeric pretreatment limitations for pollutants.

D. Discharge Limitations

1. Discharge from the wastewater treatment plant to the evaporation/percolation ponds shall not exceed the following limits:

| <u>Constituent</u> | <u>Units</u> | <u>Daily Maximum Concentration</u> |
|--------------------------------------|--------------|--|
| Total Petroleum Hydrocarbon - Diesel | ug/L | 100 |
| Lead | ug/L | 15 |

E. Solids Disposal Specifications

Sludge, as used in this document, means the solid, semisolid, and liquid residues that are generated in the wastewater treatment plant, pretreatment facilities, or that accumulate in the wastewater evaporation/percolation ponds.

1. Solids and sludge shall be removed as needed to ensure optimal operation and compliance with this Order.

2. Any on-site drying or storage of solids and sludge shall be temporary, and the waste shall be controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or at concentrations that will violate the Groundwater Limitations of this Order.
3. Solids and sludge shall be sampled, treated and/or disposed of in a manner consistent with Title 27 and approved by the Executive Officer. Additionally, solids and sludge shall be treated and disposed of only at sites that are authorized to receive such waste. Removal for further treatment, disposal, or reuse at disposal sites (i.e., landfills, wastewater treatment plants, composting sites, soil amendment sites, sludge drying facilities) operated in accordance with valid waste discharge requirements issued by a regional water quality control board will satisfy this specification.
4. Any proposed change in sludge disposal practices, including sludge drying and disposal locations, shall be reported to the Executive Officer for approval at least 90 days in advance of the change.

F. Groundwater Limitations

Release of waste constituents from any system component associated with the wastewater treatment facility shall not cause groundwater under the facility to contain any constituents in concentrations greater than ambient background conditions, and shall not cause or contribute to the violation of any Basin Plan narrative or numeric water quality objective.

G. Provisions

1. All of the following reports shall be submitted pursuant to Section 13267 of the CWC and shall be prepared as described by Provision G.3.
 - a. Within **30 days of adoption of this Order**, the Discharger shall obtain coverage (or submit a Notice of Non Applicability) under Order No. 97-03-DWQ, Discharges of Storm Water Associated with Industrial Activities.
 - b. Within **30 days of adoption of this Order** the Discharger shall submit the as-built drawings for the construction of the existing evaporation/percolation ponds.
 - c. Pretreatment systems for the truck wash and fuel island shall be designed, installed, operated and maintained to implement best practicable treatment or controls. Within **six months after adoption of this Order**, the Discharger shall submit a report describing truck wash and fuel island pretreatment process improvements that have been and/or will be implemented to achieve best practicable treatment or controls. The report shall include a time schedule to complete improvements, and a schedule for operations and maintenance. The report shall also include performance standards (percent removal and target numeric discharge goals) that reflect best practicable treatment or controls.

- d. **Within three months after adoption of this Order**, the Discharger shall submit a sludge management plan characterizing the volume and quality of sludge that has been generated, as well as present and future treatment processes and disposal locations. The plan shall also outline sampling requirements of each off-site sludge treatment and disposal facility. The Discharger shall update this plan when there are changes in sludge management practices (including when WDRs of the treatment and disposal facilities are revised) or at the request of the Executive Officer.
 - e. **Within 180 days of adoption of this Order**, the Discharger shall submit a *Groundwater Monitoring Well Installation Workplan and Groundwater Sampling and Analysis Plan*. The workplan shall describe the proposed installation of at least three groundwater monitoring wells around the evaporation/percolation ponds to allow evaluation of the groundwater quality upgradient and downgradient of the evaporation/percolation ponds. Each monitoring well shall be constructed to yield representative samples from the uppermost layer of the uppermost aquifer and to comply with applicable well standards. The workplan shall be consistent with, and include the items listed in, the first section of Attachment F, *“Items to be Included in a Monitoring Well Installation Workplan and a Monitoring Well Installation Report of Results.”*
 - f. **Within 60 days of installation of groundwater wells**, the Discharger shall submit a *Groundwater Monitoring Well Installation Report* that describes the installation of groundwater monitoring wells and contains the items found in the second section of Attachment F.
 - g. **Within 18 months of installation of groundwater wells**, the Discharger shall submit a *Background Groundwater Quality Study Report*. For each groundwater monitoring parameter/constituent identified in the monitoring and reporting program, the report shall present a summary of monitoring data, calculation of the concentration in background monitoring wells, and comparison of background groundwater quality to that in wells used to monitor the facility. Determination of background quality shall be made using the methods described in Title 27, Section 20415(e)(10), and shall be based on data from at least four consecutive quarterly (or more frequent) groundwater monitoring events. For each monitoring parameter/constituent, the report shall compare measured concentrations in each of the monitoring wells with the proposed background concentration.
2. If groundwater monitoring results show that the discharge of waste is causing a violation of the Groundwater Limitations, then within **120 days** of submittal of the *Background Groundwater Quality Study Report*, the Discharger may elect to submit a report showing that degradation of the groundwater complies with Resolution 68-16, i.e., that it is (a) in the best interest of the people of the state, (b) that best practical treatment and control measures have been implemented to reduce the amount of degradation, (c) that the groundwater degradation will not exceed applicable water quality objectives, and (d) that the degradation is confined within a specified boundary. If the Discharger cannot comply with Resolution 68-16, then within **120 days** of submittal of the *Background Groundwater Quality Study Report*, the Discharger shall submit a workplan and timeline detailing the facility

modifications that shall be implemented such that it complies with the Groundwater Limitations of this Order.

3. 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 pursuant to California Business and Professions Code. 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.
4. The Discharger shall comply with the Monitoring and Reporting Program No. R5-2005-0026, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.
5. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated 1 March 1991, which are attached hereto and made part of this Order by reference. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."
6. As described in the Standard Provisions, the Discharger shall report promptly to the Regional Board any material change or proposed change in the character, location, or volume of the discharge.
7. Upon the reduction, loss, or failure of the sanitary sewer system resulting in a sanitary sewer overflow, the Discharger shall take any necessary remedial action to (a) control or limit the volume of sewage discharged, (b) terminate the sewage discharge as rapidly as possible, and (c) recover as much as possible of the sewage discharged (including wash down water) for proper disposal. The Discharger shall implement all applicable remedial actions including, but not limited to, the following:
 - a. Interception and rerouting of sewage flows around the sewage line failure;
 - b. Vacuum truck recovery of sanitary sewer overflows and wash down water;
 - c. Use of portable aerators where complete recovery of the sanitary sewer overflows are not practicable and where severe oxygen depletion is expected in surface waters; and
 - d. Cleanup of sewage-related debris at the overflow site.
8. The Discharger shall report to the Regional Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act of 1986."
9. The Discharger shall not allow pollutant-free wastewater to be discharged into the wastewater collection, treatment, and disposal system in amounts that significantly diminish

the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.

10. 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 schedule date and task. If noncompliance is being reported, then the Discharge shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Board in writing when it returns to compliance with the time schedule.
11. In the event of any change in control or ownership of land or waste discharge facilities described herein, 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.
12. The Discharger must 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 recession of this Order.
13. 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.
14. The Regional Board will review this Order periodically and will 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 Regional Board, Central Valley Region, on 27 January 2005.

THOMAS R PINKOS, Executive Officer

MEW:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2005-0026

FOR
WAL-MART STORES EAST, L.P.
WAL-MART DISTRIBUTION CENTER NO. 26
TEHAMA COUNTY

This Monitoring and Reporting Program (MRP) presents requirements for monitoring, wastewater influent and effluent, sludge, pretreated wastewater from the fuel island and truck wash, evaporation/percolation ponds, 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. Specific sample station locations shall be approved by Regional Board staff prior to implementation of sampling activities.

All wastewater samples should be representative of the volume and nature of the discharge. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form. All samples shall be collected and preserved in accordance with EPA and analytical methodology.

Field testing 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 testing instruments shall be calibrated and serviced in accordance with manufacturer's recommendations; and
3. Field calibration reports are provided with the appropriate monitoring report.

INFLUENT MONITORING

Samples, collected from the bar screen, shall be representative of the influent shall be collected at approximately the same time as effluent samples. Influent monitoring to the wastewater treatment plant shall include the following:

| <u>Constituent</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|--|---------------------|------------------------------|----------------------------------|
| Flow | gpd | Continuous Meter | Daily |
| BOD ₅ ¹ | MPN/100 mL | Grab | Monthly |
| Total Suspended Solids | mg/L | Grab | Monthly |
| Oil and Grease | mg/L | Grab | Monthly ² |
| Gasoline Range Organics | ug/L | Grab | Monthly ² |
| <u>Total Petroleum Hydrocarbon –Diesel</u> | ug/L | Grab | Monthly ² |

¹ 5-day biochemical oxygen demand.

² Pending adequate waste characterization of influent, effluent, sludge, and/or truck wash and fuel island waste streams, and consistent compliance with Pretreatment Limitation C.1 and Discharge Limitation D.1, sampling frequency may be reduced upon written approval of the Executive Officer.

EFFLUENT MONITORING

Samples of effluent shall be collected from the wastewater treatment plant prior to discharge to the evaporation/percolation ponds. At a minimum, effluent monitoring shall consist of the following:

| <u>Constituent</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|-------------------------------------|-------------------------|-----------------------|---------------------------|
| pH | Standard | Grab | Monthly |
| Total Coliform Organisms | MPN/100 mL ¹ | Grab | Monthly |
| BOD ₅ ² | mg/L | Grab | Monthly |
| Total Dissolved Solids | mg/L | Grab | Monthly |
| Oil and Grease | mg/L | Grab | Monthly ³ |
| Gasoline Range Organics | ug/L | Grab | Monthly ³ |
| Total Petroleum Hydrocarbon –Diesel | ug/L | Grab | Monthly ³ |
| Nitrate as Nitrogen | mg/L | Grab | Quarterly |
| Total Kjeldahl Nitrogen | mg/L | Grab | Quarterly |
| Total Suspended Solids | mg/L | Grab | Quarterly |

¹ Most probable number per 100 mL.

² 5-day biochemical oxygen demand.

³ Pending adequate waste characterization of influent, effluent, sludge, and/or truck wash and fuel island waste streams, and consistent compliance with Pretreatment Limitation C.1 and Discharge Limitation D.1, sampling frequency may be reduced upon written approval of the Executive Officer.

SLUDGE MONITORING

Sludge from the wastewater treatment plant and the evaporation/percolation ponds to be disposed off-site shall be monitored as follows. Wastewater treatment plant sludge shall be sampled either from the sludge holding tanks or the pumping truck.

| <u>Constituent</u> | <u>Units</u> | <u>Type of</u> | <u>Sampling Frequency</u> |
|-------------------------------------|--------------------------|----------------|---------------------------|
| Volume and Mass of Sludge Disposed | gallons and kg | Measurement | Monthly |
| Disposal Location | -- | Record | Monthly |
| Percent Solids | percent | Grab | Monthly |
| Percent Moisture | percent | Grab | Monthly |
| Oil and Grease | mg/L and mg ¹ | Grab | Monthly ² |
| Gasoline Range Organics | ug/L and mg ¹ | Grab | Monthly ² |
| Total Petroleum Hydrocarbon –Diesel | ug/L and mg ¹ | Grab | Monthly ² |
| Priority Pollutant Metals | ug/L | Grab | Monthly ² |

¹ Mass of total petroleum hydrocarbons, and oil and grease shall be calculated based on concentrations, volume and mass of sludge disposed, and percent solids.

² Pending adequate waste characterization of influent, effluent, sludge, and/or truck wash and fuel island waste streams, and consistent compliance with Pretreatment Limitation C.1 and Discharge Limitation D.1, sampling frequency may be reduced upon written approval of the Executive Officer.

FUEL ISLAND AND TRUCK WASH MAINTENANCE

The Discharger shall report monthly truck wash and fuel island pretreatment system monitoring including pumping of sumps, backwashing, and changing of filter media. The Discharger shall note the name of the contractor providing maintenance services, volume of material pumped, and final disposal location. Should no maintenance be performed, the Discharger shall record when the next maintenance service is scheduled.

TRUCK WASH AND FUEL ISLAND DISCHARGE MONITORING

Discharge from the truck wash pretreatment system and the fuel island pretreatment system to the main collection system shall be monitored as follows.

Sample collection location:

- a. directly from the final discharge of each pretreatment system before the discharge enters the main collection system (2 samples); or
- b. directly after the location where the truck wash and the fuel island waste streams combine, but before the location where this combined waste streams enter the main collection system (1 combined sample).

| <u>Constituent</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|-------------------------------------|---------------------|-----------------------|---------------------------|
| Flow (truck wash only) | gallons per week | Meter | Weekly |
| Total Suspended Solids | mg/L | Grab | Monthly |
| Oil and Grease | mg/L | Grab | Monthly |
| Gasoline Range Organics | ug/L | Grab | Monthly ¹ |
| Total Petroleum Hydrocarbon –Diesel | ug/L | Grab | Monthly |
| Priority Pollutant Metals | ug/L | Grab | Monthly ¹ |

¹ Pending adequate waste characterization of truck wash and fuel island waste streams, and consistent compliance with Pretreatment Limitation C.1, sampling frequency may be reduced upon written approval of the Executive Officer.

EVAPORATION/PERCOLATION POND MONITORING

The evaporation/percolation ponds shall be monitored as follows. If the pond is empty on the scheduled monitoring date, the Discharger may report the freeboard monitoring result as “dry”.

| <u>Constituent</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|--------------------|--------------|-----------------------|---------------------------|
| Dissolved Oxygen | mg/L | Grab | Monthly |
| Freeboard | 0.1 feet | Measurement | Monthly |

GROUNDWATER MONITORING

The following program shall begin upon installation of groundwater monitoring wells. Prior to construction and/or sampling of any groundwater monitoring wells, the Discharger shall submit plans and specifications to the Executive Officer 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 each sampling event, 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 USEPA methods. Groundwater monitoring shall include, at a minimum, the following:

| <u>Constituent</u> ¹ | <u>Units</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|--|---|-----------------------|---------------------------|
| Top of Casing and Ground surface elevation | feet mean sea level | Measurement | Quarterly |
| Depth to Groundwater | 0.01 from Top of Casing and below ground surface | Measurement | Quarterly |
| Groundwater Elevation ² | 0.01 below ground surface and feet mean sea level | Calculated | Quarterly |
| Groundwater Gradient | ft/ft | Calculation | Quarterly |
| Gradient Direction | degrees | Calculated | Quarterly |
| Electrical Conductivity | umhos/cm | Grab | Quarterly |
| Total Dissolved Solids | mg/L | Grab | Quarterly |
| Nitrate as Nitrogen | mg/L | Grab | Quarterly |
| pH | pH units | Grab | Quarterly |
| Total Coliform Organisms | MPN/100 mL | Grab | Quarterly |

¹ Based on effluent monitoring results total petroleum hydrocarbon sampling may be added.

² 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.

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, pond, etc.), 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 at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

A. **Monthly Monitoring Reports.** Monthly monitoring reports shall be submitted to the Board by the 1st day of the second month after the month (i.e. the January monthly report is due by March 1st). The Monthly Report shall include the following:

1. Results of the influent, pretreated waste streams, effluent, pond, equipment maintenance, and sludge monitoring;
2. A comparison of the monitoring data to the discharge specifications and groundwater limitations, discharge limitations, and an explanation of any violation of those requirements;
3. A calibration log verifying calibration of all monitoring instruments and devices used to fulfill the prescribed monitoring program; and
4. Results of groundwater monitoring;
5. 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 WDRs, 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;
6. 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;
7. 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);
8. Summary data tables of historical and current water table elevations and analytical results;
9. 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; and
10. If requested by staff, copies of laboratory analytical report(s);

C. Annual Report. An Annual Report shall be prepared as the December 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 regular 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. An evaluation of the groundwater quality beneath the wastewater ponds;
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;
6. A summary of information on the management and disposal of solids and sludge;
7. A copy of the certification for each certified wastewater treatment plant operator working at the facility and a statement about whether the Discharger is in compliance with Title 23, CCR, Division 3, Chapter 26;
8. The results from annual monitoring of the effluent and groundwater wells;
9. The results of the surface water diversion monitoring; and
10. A forecast of influent flows, as described in Standard Provision No. E.4.

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

27 January 2005
(Date)

MEW:

INFORMATION SHEET

ORDER NO. R5-2005-0026
WAL-MART STORES EAST, L.P.
WAL-MART DISTRIBUTION CENTER NO. 26
TEHAMA COUNTY

Wal-Mart East, L.P., a Delaware Limited partnership (Discharger), owns and operates a distribution center for consumer goods on Highway 99 west, approximately 3 miles south of Red Bluff in Tehama County. The 1.1 million-square-foot warehouse is on a 216-acre property (Assessor's Parcel Nos. 35-050-1, 35-050-2, and 35-050-3) owned by the Discharger. The Discharger submitted a Report of Waste Discharge (RWD), dated 21 July 2003 and revised RWD dated 2 September 2003 for updating Waste Discharge Requirements (WDRs). The Regional Board adopted WDRs Order No. 98-235, NPDES No. CA0083186 on 11 December 1998, which prescribed requirements for domestic waste, truck wash water and storm water discharges.

Soils in the area consist of Redding loam, Arbuckle gravelly, and Hillgate silty loams, which are moderately deep to shallow claypan or hardpan, and have low to very low permeabilities. The average annual rainfall is 20 inches. The average annual pan evaporation is in excess of 60 inches. Surface water drainage is to an unnamed tributary of Coyote Creek, which is a tributary of the Sacramento River. The site lies within the Red Bluff hydrologic unit/area/subarea (No. 504.2) as depicted on interagency hydrologic maps prepared by the Department of Water Resources in August 1986. There are no groundwater monitoring wells at the facility; however depth to groundwater at a nearby facility is approximately 65 to 70 feet below ground surface.

The facility consists of the warehouse, offices, cafeteria, showers, 55 acres of paved parking area, wastewater treatment plant, two evaporation/percolation ponds, six underground storage tanks, maintenance workshop, truck wash, fueling station, and three large storm water ponds. Wastes generated at the facility include domestic waste, leaks/drips from refueling vehicles, truck wash water, and storm water runoff. Fuel island wash water and truck wash water are pretreated before being routed to the wastewater treatment plant. With the exception of storm water runoff, which discharges to an unnamed tributary of Coyote Creek, all wastes are treated at the on-site wastewater treatment plant. The wastewater treatment plant is currently operated by ECO-Resources under contract.

Domestic Waste. The facility employs approximately 1,100 workers including 225 truck drivers. The facility includes 34 toilets, 12 urinals, 8 showers, 38 sinks, 27 wash out drains, and 1 sand trap. Domestic waste is conveyed to the on-site wastewater treatment plant for treatment. The Discharger also maintains a 1,500 gallon grease trap for vegetable oils and greases from their cafeteria. The grease trap is pumped quarterly.

Fuel Island. This refueling area consists of a covered structure with two bays and floor drains in each bay. Windshields and truck headlights are washed here while the trucks are refueled. Wash water containing detergents that comes into contact with any oil/grease/fuel is discharged to the

floor drains. The wash water is collected in a sump and pumped through a clay filter pretreatment system mounted on the west side of the bay before being routed to the wastewater treatment plant. The clay filter system is intended to remove petroleum products. The vendor for the clay filter system, Industrial Equipment, recommends backflushing the filter media approximately once per week. However, it is unclear whether back flushing is performed at this frequency. An adsorbent pad is placed in the drainage sump to adsorb petroleum products entrained in the wash water. The Discharger estimates that the clay media is changed one to two times a year. The fuel island sump is pumped approximately every three weeks. Waste is disposed at Chico Drain Oil Service, Inc. The total petroleum hydrocarbon (TPH) and oil and grease concentrations from the fuel island discharge after pretreatment is summarized in the table below.

Fuel Island Discharge Concentrations (mg/L)

| DATE | O&G | TPH | DATE | O&G | TPH | DATE | O&G | TPH |
|----------|-----|-----|---------|-----|-----|---------|------|-----|
| 1/9/02 | 14 | 16 | 1/7/03 | 22 | 51 | 1/15/04 | 15 | - |
| 2/4/02 | 11 | ND | 2/6/03 | 30 | 14 | 2/12/04 | 31 | - |
| 3/11/02 | 14 | 8 | 3/6/03 | 20 | 8 | 3/4/04 | 20 | - |
| 4/3/02 | 28 | 28 | 4/8/03 | 48 | 11 | 4/6/04 | 27.8 | 6.0 |
| 5/6/02 | 16 | 6 | 5/9/03 | 80 | 22 | 5/13/04 | 19 | ND |
| 6/6/02 | 30 | 26 | 6/12/03 | 28 | 11 | 6/16/04 | 53 | 9.0 |
| 7/9/02 | 5 | ND | 8/6/03 | 27 | 6 | 7/14/04 | 17 | - |
| 8/6/02 | 94 | 14 | 8/6/03 | 23 | 9 | 8/11/04 | 16 | - |
| 9/10/02 | 13 | ND | 9/4/03 | 27 | ND | | | |
| 10/15/02 | 14 | ND | 10/1/03 | 14 | 7 | | | |
| 11/12/02 | 17 | ND | 11/5/03 | 7 | - | | | |
| 12/10/02 | 9 | 7 | 12/2/03 | 7 | 6 | | | |

Truck Wash. In June 2002 the Discharger replaced their total recycle truck wash system with a partial recycle system because the total recycle system was not adequately cleaning vehicles. The new system routes approximately 5 to 10 percent of the wash water generated to the wastewater treatment plant. The truck wash facility uses defoamer, an odor control detergent, and a degreaser enzyme. MSDSs for all products are available on-site. No engine cleaning is performed at this facility.

The Discharger estimates that approximately 400 gallons of water are used to wash each truck and that 90 to 95 percent of the wash water continues to be recycled, resulting in 400 to 500 gallons per day of wash water routed to the wastewater treatment plant. Sediment, oils, greases, and other petroleum products are concentrated in the primary collection center of the wash bay. Prior to exiting the truck wash area, wash water is treated through a series of three biological tanks, two filters, and an air injector, which are shown in the process schematic in Attachment C. The primary collection center is pumped approximately every three months by Combs Environmental. Results of sampling the truck wash water discharge for SVOCs and VOCs in July 2003 and March 2004 were non-detect with the exception of trace concentrations

of bis(2-ethylhexyl)phthalate, dimethylphthalate, and di-n-octylphthalate measured in July 2003. Also in July 2003, BOD and COD were measured at 68 and 343 mg/L, respectively. Results of total petroleum hydrocarbon (TPH) sampling on 7 January 2004 and 14 July 2004 were 2.5 and 9 mg/L, respectively. The concentration of oil and grease (O&G), total suspended solids (TSS), diesel, and gasoline ranged organics (GRO) that have been sampled regularly in the truck wash water discharged to the wastewater treatment plant are summarized below:

Truck Wash Discharge Concentrations

| Date | O&G (mg/) | TSS (mg/L) | Diesel (ug/L) | GRO (ug/L) |
|---------|--------------|---------------|------------------|---------------|
| 7/14/03 | 23 | 62 | - | - |
| 1/7/04 | 8 | - | - | - |
| 3/24/04 | 26 | 72 | 14,600 | 246 J |
| 3/31/04 | 35.3 | - | - | - |
| 4/7/04 | 79 | 102 | 25,200 | 189 |
| 4/14/04 | 52 | 43 | - | - |
| 4/21/04 | 58 | 50 | - | - |
| 5/12/04 | - | - | 7,220 | ND J |
| 5/19/04 | - | - | 7,890 | ND |
| 6/2/04 | - | - | 11,300 | 270 |
| 6/16/04 | - | - | 2,1700 | 123J |

“J” indicates trip blank contamination

The Discharger is required to pretreat the truck wash and fuel island waste streams prior to discharge to the wastewater treatment plant. This Order includes a time schedule for making truck wash and fuel island pretreatment system upgrades prior to enforcement of pretreatment discharge limitations.

Industrial Storm Water Runoff from Truck Parking Areas. Storm water runoff from the warehouse and uncovered truck parking area discharge to one of three storm water ponds (Ponds A, B, and C). Storm water from Pond A is discharged to Pond C, which is discharged through a skimmer to 10 acres of on-site wetlands prior to leaving the site. The skimmer is intended to filter out debris. Storm water effluent from Pond B is discharged through an 18-inch outfall pipe to surface drainage tributary to Coyote Creek. From 1998 to 2004 discharge from these ponds was regulated under an individual National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CA0083186). Because the storm water does not contain process water and because historical storm water sampling demonstrates that storm water leaving the facility is generally free of pollutants, it has been determined that storm water runoff would be more appropriately regulated under the General Industrial Storm water Permit. Consequently, the NPDES permit for this facility is not being renewed. Industrial storm water runoff concentrations for the 2003-2004 rainy season, which are typical of previous rainy seasons, are summarized in the table below.

Winter 2003-2004 Industrial Storm water Runoff Results

| Date | pH | TSS (mg/L) | Electrical Conductivity (umhos/cm) | Oil and Grease (mg/L) | Bioassay (percent survival) | Settleable Solids (mL/L) |
|---|------|---------------|--|-----------------------------|-----------------------------------|--------------------------------|
| Ponds A and C (formerly Discharge 001) | | | | | | |
| 12/2/2003 | 6.96 | 156 | 89 | ND | 100 | 0.1 |
| 2/10/2004 | 8.01 | 11 | 83 | 17 | - | ND |
| Pond B (formerly Discharge 002) | | | | | | |
| 12/2/2003 | 6.97 | 3 | 57 | ND | 100 | ND |
| 2/10/2004 | 6.79 | 9 | 61 | 2 | - | ND |

Wastewater Treatment Plant

Domestic waste, pretreated fuel island wastewater, and pretreated truck wash water are processed at the on-site activated sludge treatment plant designed to treat 20,000 gpd. January to August 2004 self-monitoring reports indicate flow rates have ranged from 1,176 to 20,913 gpd with most daily flow rates ranging from 4,000 to 12,000 gallons. Daily flows are largely dependant on the number of employees working at the facility. The sewage from the facility gravity flows to a deep wet well at the wastewater treatment plant, which is approximately 500 yards southwest of the warehouse. As shown on Attachment D, wastewater from the wet well is pumped to a 40,000-gallon cylindrical steel holding tank (equalization tank) where it can be partially aerated until it is pumped to a splitter box which directs flow to the aeration tank, or in the case of very high flows, the aerobic digester. The level in the equalization tank is generally kept low to increase the effectiveness of aeration. Overflow from the aeration tank enters one of two clarifiers (generally only one is used as the plant has excess capacity). Effluent from the clarifier enters the chlorine contact chamber where the liquid trickles over hypochlorite tablets.

Treated effluent is routed to one of two on-site evaporation/percolation ponds (Ponds 1 and 2), each approximately 7 acres in size. The evaporation/percolation ponds are constructed with native materials, fine-grained silt and/or clay, and rock. Solid materials have not been removed from these ponds because very little material has accumulated. Use of the evaporation/percolation ponds is alternated annually. There are currently no groundwater monitoring wells around these ponds. Between Ponds 1 and 2 is an evaporative irrigation system, which was intended to allow evaporation/ percolation pond water to be sprayed on the pond banks, thereby increasing the evaporation rate and available pond capacity. This system is generally used during periods of extremely high rainfall. A summary of wastewater treatment plant influent and effluent characteristics is provided below.

Wastewater Treatment Plant Influent and Effluent Concentrations

| Parameter | Influent | Effluent |
|---|-------------|--------------|
| BOD (mg/L) ¹ | 70 to 525 | <2 to 61 |
| TSS (mg/L) ¹ | 128 to 1063 | 3 to 68 |
| Diesel (ug/L) ² | - | 66 to 191 |
| Gasoline Range Organics (ug/L) ² | - | ND to 25.4 J |

¹ From January to August 2004

² From May to June 2004; "J" indicates trip blank contamination

Modifications to the original wastewater treatment plant have been made to minimize sludge generation. The second aeration tank has been converted to an aerobic digester and the second clarifier has been converted to a sludge thickener. Depending on its thickness, clarifier sludge is either returned to the first aeration tank (as return activated sludge) or discharged to the aerobic digester and then the sludge thickener. From the sludge thickener, sludge is transported to a sludge holding tank. The sludge has a low solids content (approximately 2 percent) and approximately 3,000 gallons are trucked monthly to the City of Corning's Wastewater Treatment Plant. There, sludge is dried in asphalt-lined drying beds, each approximately 150,000 gallons in size. Dried solids are trucked to the Ostrom Landfill in Wheatland, California. Sampling results of sludge from the on-site wastewater treatment plant (prior to discharge to the City of Corning's sludge drying beds) are summarized below.

Treatment Plant Sludge Concentrations

| | O&G (mg/L) | TPH (mg/L) | | O&G (mg/L) | TPH (mg/L) | | O&G (mg/L) | TPH (mg/L) | Diesel (ug/L) | GRO (ug/L) |
|----------|------------|------------|----------|------------|------------|---------|------------|------------|---------------|------------|
| 12/28/01 | 1560 | ND | 1/21/03 | 1970 | - | 2/10/04 | 770 | 168 | - | - |
| 1/9/02 | 69 | 22 | 2/11/03 | 1255 | - | 3/24/04 | - | - | - | - |
| 2/4/02 | 1550 | 345 | 3/18/03 | 1548 | 387 | 5/5/04 | 338 | 81 | - | - |
| 2/18/02 | 235 | 81 | 4/4/03 | 935 | 161 | 5/12/04 | - | - | 7,060 | 10,400 |
| 2/22/02 | 161 | 70 | 5/8/03 | 1600 | 645 | 5/19/04 | - | - | 6,580 | 9.7J |
| 4/2/02 | 693 | 333 | 5/29/03 | 1935 | 782 | 6/2/04 | - | - | 128,000 | 4,300J |
| 4/22/02 | 188 | 63 | 7/23/03 | 2020 | 1210 | 6/3/04 | 543 | 225 | - | - |
| 5/9/02 | 148 | 157 | 8/28/03 | 240 | ND | 6/16/04 | - | - | 5760 | 372J |
| 5/23/02 | 300 | 104 | 9/30/03 | 837 | 200 | | | | | |
| 6/26/02 | 363 | 228 | 10/29/03 | 193 | 97 | | | | | |
| 7/24/02 | 1320 | 630 | 11/19/03 | 727 | 370 | | | | | |
| 8/14/02 | 266 | 204 | | | | | | | | |
| 9/12/02 | 449 | 267 | | | | | | | | |
| 11/27/02 | 704 | 450 | | | | | | | | |

"J" indicates trip blank contamination; 2 June 2004 diesel result may be an aberration.

Materials Stored

As summarized in the table below, there are six underground petroleum tanks made of double wall fiberglass at the facility. The fueling station is served by four diesel tanks, each with the capacity of 12,000 gallons. The remaining two tanks contain new oil and waste oil, and have capacities of 6,000 and 2,500 gallons, respectively. Each tank is equipped with spill/overflow protection. Automatic tank gauges continuously monitor the interstitial space of the tanks and all sumps. They also perform statistical leak detection. The tank lines and pumps have line leak detectors. In January 2004, the tanks were inspected for compliance with Senate Bill 989, which includes new construction and monitoring requirements for underground storage tanks.

| Tank ID | D-1 | D-2 | D-3 | D-4 | NO-1 | WO-1 |
|--------------------|--------|--------|--------|--------|---------|-----------|
| Capacity (gallons) | 12,000 | 12,000 | 12,000 | 12,000 | 6,000 | 2,500 |
| Contents | Diesel | Diesel | Diesel | Diesel | New Oil | Waste Oil |

Additionally, there are three to four 55-gallon drums in the maintenance shop located within a sump. Two to four drums containing waste oil are also stored outside

The Discharger has the following documents available on-site: the Tehama County Underground Storage Tank Compliance Certificate, their Storm Water Pollution Prevention Plan dated February 1994, and the Spill Prevention Control and Countermeasure Plan (SPCCP) dated April 2003.

Permit Conditions

Coverage Under General Industrial Storm Water Permit. As discussed previously, the NPDES permit for this facility was not renewed because the only water exiting the site is rainfall runoff from the roofs and parking lots. Routine sampling, as well as California Toxics rule sampling has indicated that this industrial storm water runoff is more appropriately regulated under the General Industrial Storm Water Permit. This Order requires the Discharger to submit a Notice of Intent for coverage under the General Industrial Storm water Permit.

Discharge Limitations for Wastewater Treatment Plant Effluent. The discharge limitations for total petroleum hydrocarbons from the wastewater treatment plant to the evaporation/percolation ponds are protective of groundwater and are effective immediately upon adoption of this Order. The basis for these limitations is provided in Attachment E.

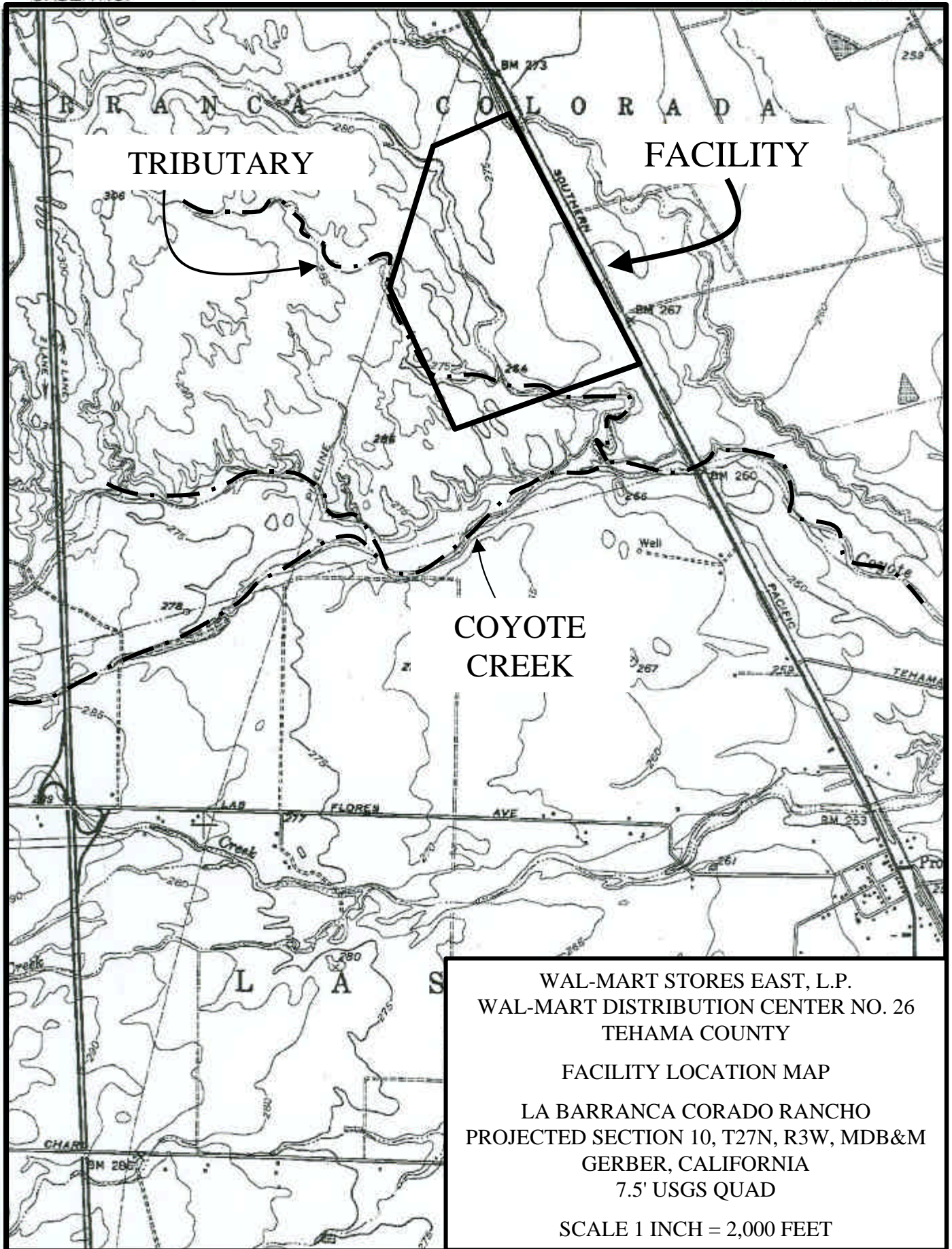
Pretreatment Discharge Limitations for truck wash and fuel island discharge. The wastewater treatment plant is not designed to treat petroleum compounds, oils, or grease. Such pollutants either remain dissolved in the effluent and are discharged to the on-site

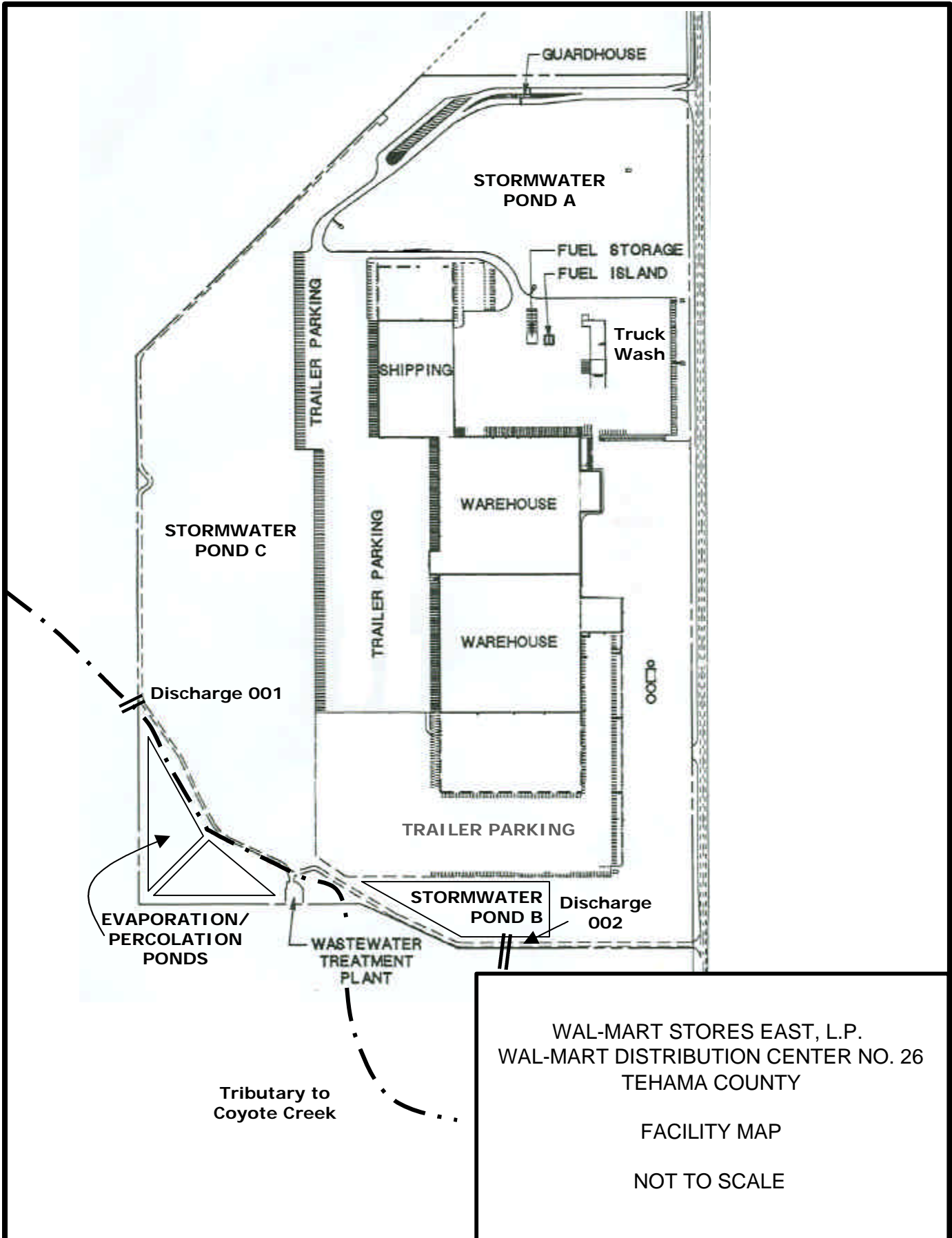
evaporation/percolation ponds or are concentrated in the sludge, dried at the City of Corning's sludge drying beds, and disposed at Ostrom Landfill. This Order includes a pretreatment discharge limitation that states that the pretreatment systems for the truck wash and fuel island shall be designed, installed, operated and maintained to ensure best practicable treatment or controls are employed. The pretreatment discharge limitation further states that failure of the pretreatment systems to achieve best practicable treatment or controls, or meet the proposed removal efficiencies and treatment standards to be established in accordance with Provision G.1.c, may result in the reopening of this Order and the inclusion of numeric pretreatment limitations for pollutants. This Order includes a time schedule for design and construction of improved pretreatment systems at the truck wash and fuel island.

Groundwater Monitoring Wells. Treated effluent is discharged to two on-site evaporation/percolation ponds. These ponds are not lined. Leak detection systems have not been installed. Groundwater monitoring wells are required to determine if there are impacts to groundwater from the treated effluent.

MEW:

27 January 2005

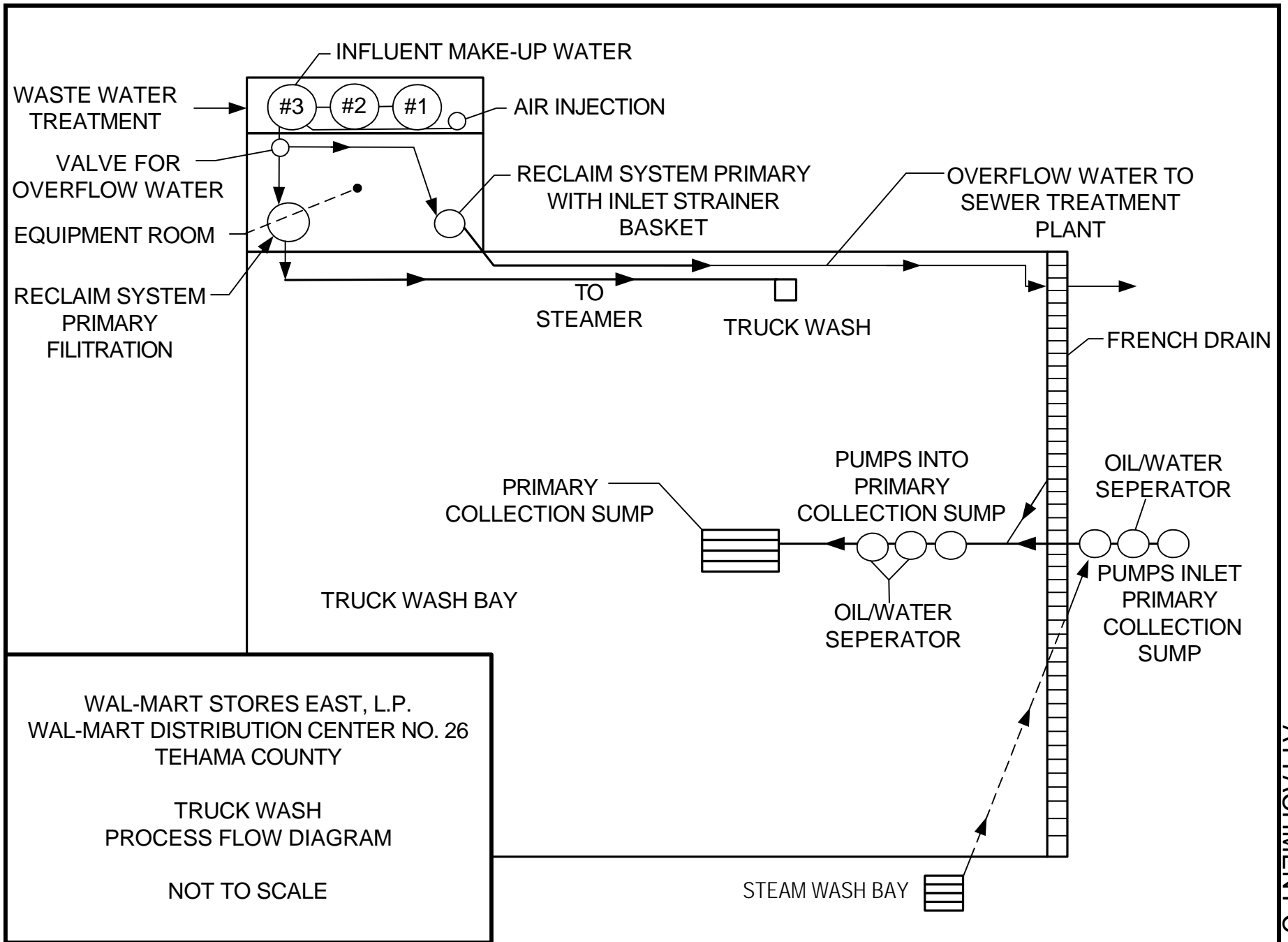




WAL-MART STORES EAST, L.P.
WAL-MART DISTRIBUTION CENTER NO. 26
TEHAMA COUNTY

FACILITY MAP

NOT TO SCALE



WASTE WATER TREATMENT
VALVE FOR OVERFLOW WATER
EQUIPMENT ROOM
RECLAIM SYSTEM PRIMARY FILTRATION

INFLUENT MAKE-UP WATER

#3 #2 #1

AIR INJECTION

RECLAIM SYSTEM PRIMARY WITH INLET STRAINER BASKET

OVERFLOW WATER TO SEWER TREATMENT PLANT

TO STEAMER

TRUCK WASH

FRENCH DRAIN

PRIMARY COLLECTION SUMP

PUMPS INTO PRIMARY COLLECTION SUMP

OIL/WATER SEPERATOR

PUMPS INLET PRIMARY COLLECTION SUMP

TRUCK WASH BAY

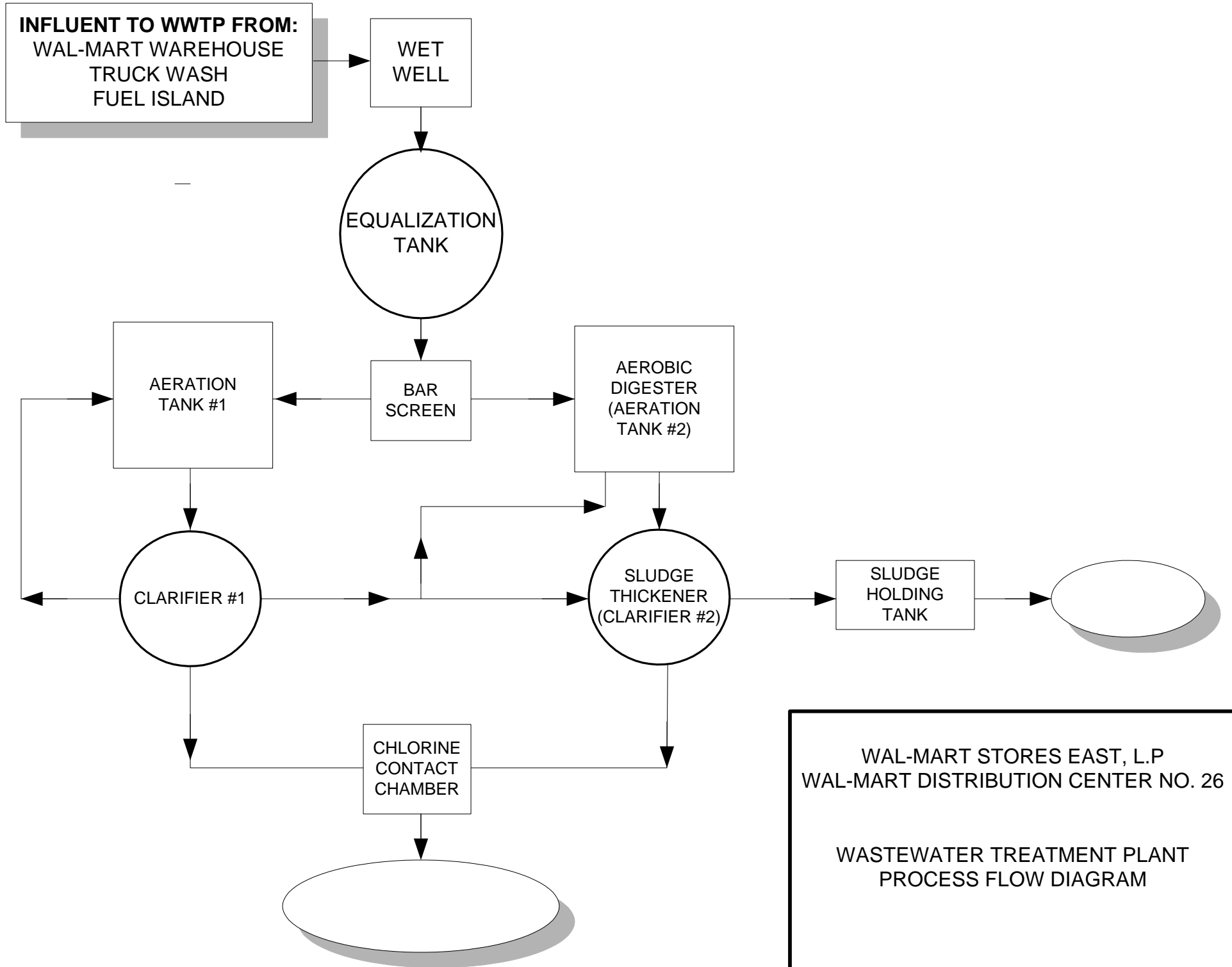
OIL/WATER SEPERATOR

WAL-MART STORES EAST, L.P.
WAL-MART DISTRIBUTION CENTER NO. 26
TEHAMA COUNTY

TRUCK WASH
PROCESS FLOW DIAGRAM

NOT TO SCALE

STEAM WASH BAY



WAL-MART STORES EAST, L.P
WAL-MART DISTRIBUTION CENTER NO. 26

WASTEWATER TREATMENT PLANT
PROCESS FLOW DIAGRAM

**BASIS FOR DISCHARGE LIMITATIONS
(Discharge from WWTF to Evaporation/Percolation Ponds)**

Wal-Mart Distribution Center No. 26, Red Bluff, Tehama County

| Constituent | Units | Daily Maximum | Basis | Value |
|--------------------------------------|--------------|--------------------------|--|--------------|
| Lead (organic lead as total lead) | ug/L | 15 | California and Federal Primary Maximum Contaminant Level | 15 |
| | | | Toxicity - California Public Health Goal (OEHHA) | 2 |
| | | | Effluent Limitation, Kinder Morgan (Order No. 5-01-194), General Order for Discharge to Surface Waters from Cleanup of Petroleum Fuel Pollution (Order No. 5-00-119) | 2 |
| Total Petroleum Hydrocarbon - Diesel | ug/L | 100 | Tastes and Odors - Taste & odor threshold from USEPA Health Advisory | 100 |
| | | | Toxicity - USEPA Superfund Provisional Reference Dose | 56 to 140 |
| | | | Effluent Limitation, Kinder Morgan (Order No. 5-01-194), General Order for Discharge to Surface Waters from Cleanup of Petroleum Fuel Pollution (Order No. 5-00-119) | 100 |
| Total Suspended Solids | mg/L | 80 | Pollutant benchmark levels provided in the Storm Water Information Messenger, Central Valley Regional Water Quality Control Board, March 1994 | 30 to 100 |
| | | | Federal Register, Vol. 60, No. 189, 29 September 1995, page 50826, Table 5 | 100 |
| | | | Discharge Specification for Carriage Auto Wash (Order No. 95-121) and Paradise Touchless Carwash (Order No. 5-01-092) | 80 |
| Oil and Grease | mg/L | 10 | Pollutant benchmark levels provided in the Storm Water Information Messenger, Central Valley Regional Water Quality Control Board, March 1994 | 10 to 30 |
| | | | Federal Register, Vol. 60, No. 189, 29 September 1995, page 50826, Table 5 | 15 |
| | | | Discharge Specification for Carriage Auto Wash (Order No. 95-121) and Paradise Touchless Carwash (Order No. 5-01-092) | 10 |

ORDER NO. R5-2005-0026
WAL-MART STORES EAST, L.P.
WAL-MART DISTRIBUTION CENTER NO. 26
TEHAMA COUNTY

ATTACHMENT F
REQUIREMENTS FOR
MONITORING WELL INSTALLATION WORKPLANS AND
MONITORING WELL INSTALLATION REPORTS

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 approve 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
 - Anticipated screen slot size and filter pack

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

California Environmental Protection Agency

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