

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. 5-01-064

NPDES NO. CA0004316

WASTE DISCHARGE REQUIREMENTS  
FOR

PROCTER & GAMBLE MANUFACTURING COMPANY  
SACRAMENTO COUNTY

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

1. Procter & Gamble Manufacturing Company (hereafter Discharger) submitted a Report of Waste Discharge, dated 4 January 1999, and applied for a permit renewal to discharge waste under the National Pollutant Discharge Elimination System (NPDES) from their facility. Supplemental information to complete filing of the application was submitted on 21 June 1999.
2. The Discharger discharges co-mingled cooling water and storm water from its plant at Fruitridge and Power Inn Roads, to a Sacramento owned pumping station which discharges to a drainage ditch into Morrison Creek at a point in Section 26, T8N, R5E, MDB&M, as shown on Attachment A, which is a part of this Order.
3. Domestic and industrial wastewater generated at Procter & Gamble Manufacturing Company are discharged to the Sacramento Regional County Wastewater Treatment Plant. All areas containing process machinery and tanks are bermed to prevent spills from entering the storm drain system.
4. The Report of Waste Discharge, as well as recent monitoring reports, describe the discharge as follows:

Monthly Average Flow:	1.6	million gallons per day (mgd)
Design Flow:	6.5	mgd
Average Temperature:	102	°F Summer, 97°F Winter

<u>Constituent</u>	<u>Daily max (mg/l)</u>
COD	12
TOC	4.8
Ammonia (as N)	0.12

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5. The primary constituents of concern in the facility effluent include pH, TDS, and temperature. However constituents from chemicals used in cooling system maintenance and storm water runoff from throughout the facility are also a concern. The Discharger adds several chemicals to the cooling water for maintenance. Betz 409A, EZA Zeolite A, Slimicide C-31, Slimicide C-41 (Spectrus NX1108), and Sodium Chloride are added to the water to prevent bio-fouling, scale buildup, and for water softening purposes. In addition storm water from areas that handle the loading of bulk chemicals at the facility are a concern for potential runoff during storm events. The Discharger will be required to conduct priority pollutant analyses during storm events and during dry weather operations in order to evaluate the potential impact on effluent quality from the facility.
6. The U.S. Environmental Protection Agency (EPA) and the Board have classified this discharge as a minor discharge.
7. The Board adopted a *Water Quality Control Plan Fourth Edition, for the Sacramento and San Joaquin River Basins*, (hereafter Basin Plan). The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the Basin. These requirements implement the Basin Plan.
8. USEPA adopted the *National Toxics Rule* on 5 February 1993 and the *California Toxics Rule* on 18 May 2000. These Rules contain water quality standards applicable to this discharge. The State Water Resources Control Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (known as the State Implementation Plan), which contains guidance on implementation of the *National Toxics Rule* and the *California Toxics Rule*. The Policy is applicable to the Discharge.
9. The Regional Board shall notice a reconsideration of this permit within 60 days of the date of the final judgment by the San Francisco Superior Court in *WaterKeepers Northern California et al.*, Case No. 312513, for the purpose of modifying the permit to make it consistent with the judgment of the Court in this same matter where any term, limitation, or provision, is inconsistent with the judgment. This permit shall be modified within the time period established by the Court in this matter.
10. The beneficial uses of Morrison Creek are not identified in the Basin Plan, however the Plan states, "The beneficial uses of any specifically identified water body generally apply to its tributary streams." Upon review of the flow conditions, habitat values, and beneficial uses of Morrison Creek, the Board finds that the beneficial uses identified in the Basin Plan for the Sacramento - San Joaquin Delta are applicable to Morrison Creek.

The beneficial uses of the Sacramento-San Joaquin Delta downstream of the discharge as identified in Table II-1 of the Basin Plan are municipal and domestic supply, agricultural irrigation, agricultural stock watering, industrial process water supply, industrial service supply, body contact water recreation, other non-body contact water recreation, warm freshwater aquatic habitat, cold freshwater aquatic habitat, warm fish migration habitat, cold fish migration habitat, warm spawning habitat, wildlife habitat, and navigation.

11. The California Department of Fish and Game found several warm water species in Morrison Creek. They also reported that a study conducted by the Sacramento Regional County Sanitation District found Chinook salmon, a cold water species, in the Bufferlands area which includes Upper and Lower Beach Lakes. Morrison Creek seasonally flows into the Bufferlands area, which is within the legal boundary of the Sacramento-San Joaquin Delta.
12. The beneficial uses of the underlying ground water are municipal and domestic, industrial service, industrial process and agricultural supply.
13. The permitted discharge is consistent with the antidegradation provisions of 40 Code of Federal Regulations (CFR) 131.12 and State Water Resources Control Board Resolution 68-16. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.
14. Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numerical water quality objective. This Order contains provisions that:
  - a. require the Discharger to provide information as to whether the levels of priority pollutants, including CTR and NTR constituents, and constituents for which drinking water maximum contaminant levels (MCL) are prescribed in the California Code of Regulations, in the discharge cause or contribute to an in-stream excursion above a water quality objective;
  - b. if the discharge has a reasonable potential to cause or contribute to an in-stream excursion above a water quality objective, require the Discharger to submit information necessary to calculate effluent limitations for those constituents; and
  - c. allow the Board to reopen this Order and include effluent limitations for those constituents.
15. Federal Regulations for storm water discharges were promulgated by the United States Environmental Protection Agency (USEPA) on 16 November 1990 (40 CFR Parts 122, 123, 124). The regulations require operators of specific categories of facilities, which discharge storm water associated with industrial activity (storm water), to obtain NPDES permits and to implement Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate industrial storm water pollution.
16. The State Water Resources Control Board adopted Order No. 97-03-DWQ (General Permit No. CAS000001) specifying waste discharge requirements for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent by industries to be covered under the permit. The General Permit is not appropriate for this facility due to co-mingling of storm water and cooling water, making the entire discharge non-storm water. This individual permit and the provisions it contains relieves the Discharger from seeking coverage under the General Permit.

17. The Discharger shall develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP) to reduce or prevent pollutants associated with industrial activity in the commingled storm water and non-contact cooling water discharges.
18. Effluent limitations, and toxic and pretreatment effluent standards established pursuant to Sections 301, 302, 304, and 307 of the Clean Water Act (CWA) and amendments thereto are applicable to the discharge.
19. The discharge is presently governed by Waste Discharge Requirements Order No. 94-177, adopted by the Board on 24 June 1994.
20. Previous permits issued for this facility contained a receiving water limitation requiring the discharge to not cause receiving water dissolved oxygen to fall below 5.0 mg/l. However, because the beneficial use of cold freshwater habitat applies to this stream segment, the Basin Plan water quality objective for dissolved oxygen of 7.0 mg/l is applicable.

This permit applies a water quality objective to Morrison Creek that has never been applied to this specific area of the water body. It is unknown if the Discharger is currently capable of meeting this receiving water limitation.

This order provides for a time schedule for meeting the receiving water limitation. The time schedule is authorized to be included in this order based on 40 CFR §122.47. The Board considers the application of a water quality objective that has never been applied to Morrison Creek as a new interpretation of the Basin Plan.

21. The previous permit provided for a mixing zone for compliance with the Basin Plan water quality objective for temperature. The mixing zone extended for several miles downstream of the facility's discharge point to Morrison Creek, to the Mack Road over crossing.

With regard to mixing zones, the Basin Plan states, "...the Regional Water Board may designate mixing zones within which water quality objectives will not apply provided the discharger has demonstrated to the satisfaction of the Regional Water Board that the mixing zone will not adversely impact beneficial uses... In determining the size of such mixing zones, the Regional Water Board will consider the applicable procedures and guidelines in EPA's Water Quality Standards Handbook and the Technical Support Document for Water Quality-based Toxics Control..." The Board finds that, based on water quality evidence and the applicable procedures guidelines currently available, provisions for a mixing zone by allowing compliance with water quality objectives to be determined at the Mack Road over-crossing should not be continued.

Morrison Creek is an ephemeral stream, with minimal dilution in the vicinity of the discharge. Because available dilution is negligible, the Board will not designate any mixing zone within which Basin Plan water quality objectives will not apply. The elimination of the mixing zone within Morrison Creek requires that this permit apply Basin Plan water quality objectives, which have never been applied to this specific area of the water body for this Discharger. Receiving

water limitations for temperature have been included in this permit, as explained below, based on the application of the Basin Plan water quality objectives within Morrison Creek. The Discharger is not currently capable of complying with these receiving water limitations.

This Order provides for a time schedule for meeting the receiving water limitations. The time schedule is authorized to be included in this Order based on 40 CFR §122.47. The Board considers the elimination of the mixing zone in Morrison Creek for compliance with the Basin Plan water quality objectives as a new interpretation of the Basin Plan.

22. The action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21100, et seq.), requiring preparation of an environmental impact report or negative declaration in accordance with Section 13389 of the California Water Code.
23. The Board has considered the information in the attached Information Sheet in developing the Findings of this Order. The attached Information Sheet is part of this Order.
24. The Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
25. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.
26. This Order shall serve as an NPDES permit pursuant to Section 402 of the CWA, and amendments thereto, and shall take effect upon the date of hearing, provided EPA has no objections.

**IT IS HEREBY ORDERED** that Order No. 94-177 is rescinded and that Procter & Gamble Manufacturing Company, its agents, successors and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

**A. Discharge Prohibitions:**

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

**B. Effluent Limitations:**

1. Effluent shall not exceed the following limits:

<u>Constituents</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Annual Average</u>
COD	mg/l	20	40	
Total Dissolved Solids	mg/l	500	1500	450
Chlorine Residual	mg/l	0.01	0.02	

2. The discharge shall not have a pH less than 6.5 nor greater than 8.5.
3. The maximum discharge flow shall not exceed 6.5 million gallons/day.

**C. Sludge Disposal:**

1. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer, and consistent with *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste* as set forth in Title 27, California Code of Regulations, Division 2, Subdivision 1, Section 2000 et seq.
2. Any proposed change in sludge 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.

**D. Receiving Water Limitations:**

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

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

1. Concentrations of dissolved oxygen to fall below 5.0 mg/l. Effective 18 months after adoption of this permit, the discharge shall not cause concentrations to fall below 7.0 mg/l.
2. Oils, greases, waxes, or other materials to form a visible film or coating on the water surface or on the stream bottom.
3. Oils, greases, waxes, floating material (liquids, solids, foams, and scums) or suspended material to create a nuisance or adversely affect beneficial uses.
4. Chlorine to be detected in the receiving water.

5. Esthetically undesirable discoloration.
6. Fungi, slimes, or other objectionable growths.
7. The turbidity to increase as follows:
  - a. More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.
  - b. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
  - c. More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.
  - d. More than 10 percent where natural turbidity is greater than 100 NTUs.
8. The ambient pH to fall below 6.5, exceed 8.5, or change by more than 0.5 units.
9. The ambient temperature to increase more than 5°F. This limitation shall become effective 18 months after adoption of this permit, in accordance with Provision E.3.
10. Deposition of material that causes nuisance or adversely affects beneficial uses.
11. Radionuclides to be present in concentrations that exceed maximum contaminant levels specified in the California Code of Regulations, Title 22; that harm human, plant, animal or aquatic life; or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.
12. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.
13. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental response in human, plant, animal, or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health.
14. Violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board pursuant to the CWA and regulations adopted thereunder.
15. Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to cause nuisance or adversely affect beneficial uses.

**E. Provisions:**

1. The Discharger shall comply with Monitoring and Reporting Program No. 5-01-064, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.
2. There is inadequate information available to determine if the discharge causes, has the reasonable potential to cause, or contribute to an exceedance of water quality objectives for priority pollutants, including CTR and NTR constituents, and constituents for which drinking water maximum contaminant levels (MCLs) are prescribed in the California Code of Regulation. The Discharger shall comply with the following time schedule in conducting a study of the potential effect of these constituents in the discharge and surface waters:

<u>Task</u>	<u>Compliance Date</u>
Submit Workplan and Time Schedule	<b>Within 2 months of permit adoption</b>
Begin Study	<b>Within 2 months of Executive Officer Approval</b>
Complete Study	<b>1-year following start of study</b>
Submit Study Report	<b>2 months following study completion</b>

The Discharger shall submit to the Board on or before each compliance due date, the specified document or written report detailing compliance or noncompliance with the specific date and task. If noncompliance is reported, the Discharger shall state the reasons for noncompliance and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Board by letter when it returns to compliance with the time schedule.

If after review of the study results it is determined that the discharge has a reasonable potential to cause or contribute to an exceedance of a water quality objective this Order will be reopened and effluent limitations added for the subject constituents.

3. Receiving Water Limitation D.1 requires that the discharge not cause receiving water dissolved oxygen to fall below 7.0 mg/l, effective 18 months after permit adoption. In addition, Receiving Water Limitation D.9 requires that the discharge not cause the receiving water temperature to increase more than 5°F, effective 18 months after permit adoption. It is unknown if the Discharger can comply with these limitations. Within one year of adoption of this permit, the Discharger shall submit a report providing information to show the discharge can comply with these limitations or provide a time schedule to achieve compliance with the limitations. This Order may be reopened to amend the time schedule provided in Receiving Water Limitation D.1 and/or D.9. The schedule of compliance shall include a time schedule for completing specific actions that demonstrate reasonable progress toward compliance with the limitation and shall contain a final compliance date, based on the shortest practicable time required to achieve compliance. In no event shall the compliance date exceed 10 years from the date of adoption of this permit.
4. The Discharger shall conduct the chronic toxicity testing specified in the Monitoring and Reporting Program. If the testing indicates that the discharge causes, has the reasonable



potential to cause, or contributes to an in-stream excursion above the water quality objective for toxicity, the Discharger shall initiate a Toxicity Identification Evaluation (TIE) to identify the causes of toxicity. Toxicity shall be defined as a statistically significant increase in mortality or a statistically significant decrease in growth or reproduction ( $p < 0.05$ ) compared to the laboratory control water. Upon completion of the TIE, the Discharger shall submit a workplan to conduct a Toxicity Reduction Evaluation (TRE) and, after Board evaluation, conduct the TRE. This Order will be reopened and a chronic toxicity limitation included and/or a limitation for the specific toxicant identified in the TRE included. Additionally, if a chronic toxicity water quality objective is adopted by the State Water Resources Control Board, this Order may be reopened and a limitation based on that objective included.

5. The Discharger shall comply with all the items of the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES)", dated 1 March 1991, which are part of this Order. This attachment and its individual paragraphs are referred to as "Standard Provisions."
6. The Discharger shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP) as outlined in Attachment B, which is a part of this Order. The SWPPP shall be developed and submitted within **90 days of the date of this Order**.
7. This Order expires on 1 March 2006 and the Discharger must file a Report of Waste Discharge in accordance with Title 23, CCR, not later than 180 days in advance of such date in application for renewal of waste discharge requirements if it wishes to continue the discharge.
8. Prior to making any change in the discharge point, place of use, or purpose of use of the wastewater, the Discharger shall obtain approval of, or clearance from the State Water Resources Control Board (Division of Water Rights).
9. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Board and a statement. The statement shall comply with the signatory paragraph of Standard Provision D.6 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

I, GARY M. CARLTON, 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 16 March 2001.

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GARY M. CARLTON, Executive Officer

AMENDED

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD{PRIVATE }  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 5-01-064

NPDES NO. CA0004316

FOR  
PROCTER & GAMBLE MANUFACTURING COMPANY  
SACRAMENTO COUNTY

**EFFLUENT MONITORING**

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

<u>{PRIVATE }</u> <u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
COD	mg/l	Grab	Weekly
Total Dissolved Solids	mg/l	Grab	Weekly
Dissolved Oxygen	mg/l	Grab	Weekly
Electrical Conductivity @25°C	µmhos/cm	Grab	Weekly
pH	Number	Grab	Weekly
Flow	mgd	Meter	Continuous
Temperature	°F (°C)	Grab	Weekly
Chlorine Residual	mg/l	Grab	Weekly
Total Suspended Solids	mg/l	Grab	4/year <sup>1</sup>
Oil & Grease	mg/l	Grab	4/year <sup>1</sup>
Priority Pollutant Metals <sup>2,3</sup>	µg/l	Grab	4/year <sup>1</sup>
Volatile Organic Compounds <sup>2</sup>	µg/l	Grab	4/year <sup>1</sup>
Semi-Volatile Organic Compounds <sup>2</sup>	µg/l	Grab	4/year <sup>1</sup>
Hardness (as CaCO <sub>3</sub> ) <sup>4</sup>	mg/l	Grab	4/year <sup>1</sup>

Footnotes on next page.

*(1) Samples shall be taken twice during significant storm events in the wet season (October 1 - May 30) and twice during the dry season (June 1 – September 30) in conjunction with routine weekly monitoring as follows: The Discharger shall collect effluent samples representative of the first storm event of the wet season that produces a significant storm water discharge preceded by at least three (3) working days<sup>1</sup> without a storm water discharge, and at least one other storm event in the wet season that produces a significant storm water discharge. The first storm event shall be significant enough to cause runoff from the facility and produce effluent that represents the quality of effluent discharged during the first post dry season storm event. The second wet season sampling event shall follow the first wet season sampling event by a minimum of thirty (30) days and shall be preceded by at least three (3) working days without a storm water discharge. All dry weather sampling events shall be preceded by at least three (3) working days without a storm water discharge. The second dry weather-sampling event shall follow the first dry weather sampling event by a minimum of thirty (30) days.*

- (2) The Discharger must submit report within 60 days of permit adoption outlining EPA test methods and detection limits for approval, with a goal to achieve detection levels below applicable water quality criteria. At a minimum the Discharger shall comply with the Monitoring Requirements for these constituents as outlined in Section 2.3 and 2.4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, adopted 2 March 2000 by the State Water Resources Control Board. Report all peaks identified by the EPA test methods.*
- (3) Priority Pollutant Metals will include the analyses of the following total metals: arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc.*
  - (4) Concurrent with metals analyses.*

If the discharge is intermittent rather than continuous, then on the first day of each such intermittent discharge, the Discharger shall monitor and record data for all of the constituents listed above (with the exception of priority pollutant metals, and volatile and semi-volatile organic compounds), after which the frequencies of analysis given in the schedule shall apply for the duration of each such intermittent discharge. In no event shall the Discharger be required to monitor and record data more often than twice the frequencies listed in the schedule.

Storm water discharge visual observations should include the following:

- a. Facility operators shall visually observe storm water discharges from one storm event per month during the wet season (October 1-May 30). These visual observations shall occur during the first hour of discharge and at all discharge locations. Visual observations of stored or contained storm water shall occur at the time of release.
- b. Visual observations are only required of storm water discharges that occur during daylight hours that are preceded by at least three (3) working days<sup>1</sup> without storm water discharges and that occur during scheduled facility operating hours.
- c. Visual observations shall document the presence of any floating and suspended material, oil and grease, discolorations, turbidity, odor, and source of any pollutants. Records shall be maintained of observation dates, locations observed, observations, and response taken to reduce or prevent pollutants in storm water discharges. The SWPPP shall be revised, as necessary, and implemented in accordance with Attachment B of this Permit.

## RECEIVING WATER MONITORING

All receiving water samples shall be grab samples. Receiving water monitoring shall include at least the following:

<u>Station</u>	<u>Description</u>
R-1	In the outfall ditch at the point of discharge to Morrison Creek.
R-2	Upstream from the point of discharge to Morrison Creek.
R-3	100 feet downstream from the point of discharge to Morrison Creek.

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<sup>1</sup> Three (3) working days may be separated by non-working days such as weekends and holidays provided that no storm water discharges occur during the three (3) working days and the non-working days.

<u>Constituents</u>	<u>Units</u>	<u>Station</u>	<u>Sampling Frequency</u>
Dissolved Oxygen	mg/l	R-1, R-2, R-3	Weekly
pH	Number	R-1, R-2, R-3	Weekly
Temperature	°F (°C)	R-1, R-2, R-3	Weekly
Turbidity	NTU	R-1, R-2, R-3	Weekly
Electrical Conductivity @25°C	µmhos/cm	R-1, R-2, R-3	Weekly

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by Stations R-1, R-2, and R-3. Attention shall be given to the presence or absence of:

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

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

### THREE SPECIES CHRONIC TOXICITY MONITORING

Chronic toxicity monitoring shall be conducted to determine whether the effluent is contributing toxicity to Morrison Creek. The testing shall be conducted as specified in EPA 600/4-91/002. Chronic toxicity samples shall be collected at the discharge of the Procter & Gamble Manufacturing Facility prior to its entering Morrison Creek. Grab samples shall be representative of the volume and quality of the discharge. Time of collection samples shall be recorded. The effluent tests must be conducted with concurrent reference toxicant tests. Both the reference toxicant and effluent test must meet all test acceptability criteria as specified in the chronic manual. If the test acceptability criteria are not achieved, then the Discharger must re-sample and re-test within 14 days. Chronic toxicity monitoring shall include the following:

Species: *Pimephales promelas, Ceriodaphnia dubia, and Selenastrum capricornutum*

The Discharger shall conduct the chronic toxicity test 4 times per year using 100% effluent and 2 controls. If toxicity is found in any of the effluent tests, the Discharger must immediately retest using the full sampling protocol of 5 dilutions listed below.

Dilution Series:	<u>Dilutions (%)</u>					<u>Controls</u>	
	<u>100</u>	<u>50</u>	<u>25</u>	<u>12.5</u>	<u>6.25</u>	<u>Creek Water</u>	<u>Lab Water</u>
% WWTP Effluent	100	50	25	12.5	6.25	0	0
% Dilution Water*	0	50	75	87.5	93.75	100	0
% Lab Water	0	0	0	0	0	0	100

\* - Dilution water shall be receiving water from Morrison Creek taken upstream from the discharge point.

### REPORTING

Monitoring results shall be submitted to the Regional Board by the **first day** of the second month following sample collection. Quarterly and annual monitoring results shall be submitted by the **first day of the second month following each calendar quarter, semi-annual period, and year**, respectively.

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

If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

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

- a. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations.
- b. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration (Standard Provision C.6).

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

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

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

Ordered by:

GARY M. CARLTON, Executive Officer

16 March 2001

(Date)

## INFORMATION SHEET

ORDER NO. 5-01-064  
PROCTER & GAMBLE MANUFACTURING COMPANY  
SACRAMENTO COUNTY

The Procter & Gamble Manufacturing Company produces industrial organic chemicals at the Sacramento Plant. The manufacturing equipment and tanks are surrounded by berms designed to contain any major spills, and to prevent compounds from entering the storm drain system. Organic chemicals are made in the manufacturing process, and any waste material that is considered "hazardous" is contained and disposed of in appropriate off-site facilities by certified waste haulers.

The surface water discharge from the facility consists of non-contact cooling water and storm water. Non-contact cooling water at the facility is kept separate from process water. Non-contact cooling water and storm water are commingled throughout the facility and are sent to a sump prior to being pumped to cooling towers and then into a retention basin. The effluent is discharged to a Sacramento City owned lift station where it is pumped into a concrete channel that conveys it to Morrison Creek. Process water, on site domestic waste, and storm water from the process areas are all discharged to the sanitary sewer, which flows to the Sacramento Regional County Wastewater Treatment Plant.

This permit regulates both the non-contact cooling water at the facility as well as storm water runoff. Monitoring requirements have been added to the permit to assess pollutants which may be discharged from the facility. The Discharger is required to monitor volatile organic compounds, semi-volatile organic compounds, and various metals in the effluent from the facility during storm events as well as during dry weather operating conditions. The results of the analyses will be evaluated to determine if there is reasonable potential for the effluent to cause or contribute to violations of any narrative or numeric receiving water objectives for these constituents. This Order may be reopened to include effluent limits for those constituents if necessary.

The Discharger must prepare, retain on site, and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should help identify the sources of pollution that affect the quality of industrial storm water discharges and non-contact cooling water discharges, and should describe measures to reduce or prevent pollutants in industrial storm water discharges and non-contact cooling water discharges.

The primary pollutants of concern for the Procter & Gamble Manufacturing Company facility effluent are temperature, pH and total dissolved solids (TDS). In the previous permit the facility did not have effluent limits for pH or TDS, this permit includes effluent limits for pH and TDS.

In addition, the use of cooling water chemical additives to control bio-fouling and scaling has resulted in a need for additional monitoring. The Discharger adds Betz 409A, EZA Zeolite A, Slimicide C-31, Slimicide C-41 A, and sodium chloride to the cooling water. Concerns that storm water runoff may potentially contain minor amounts of process chemicals have led to additional monitoring during storm events. Information on the modified effluent limits and monitoring requirements can be found below.

The previous permit provided for a mixing zone for compliance with the Basin Plan water quality objective for temperature. The mixing zone extended for several miles downstream of the facilities discharge point to Morrison Creek, to the Mack Road over crossing.

Morrison Creek is an ephemeral stream, with minimal dilution in the vicinity of the discharge. Because available dilution is negligible, the Board will not designate any mixing zone within which Basin Plan water quality objectives will not apply. The elimination of the mixing zone within Morrison Creek requires that this permit apply Basin Plan water quality objectives, which have never been applied to this specific area of the water body. Receiving water limitations for temperature have been included in this permit, as explained below, based on the application of

the Basin Plan water quality objectives within Morrison Creek. The Discharger is not currently capable of complying with these receiving water limitations.

This order provides for a time schedule for meeting the receiving water limitations. The time schedule is authorized to be included in this order based on 40 CFR §122.47. The Board considers the elimination of the mixing zone in Morrison Creek for compliance with the Basin Plan water quality objectives as a new interpretation of the Basin Plan.

Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have a reasonable potential to cause, or contribute to an in-stream excursion above numerical or water quality standard. The Discharger is required to provide information as to whether the levels of priority pollutants, including CTR and NTR constituents, constituents for which drinking water maximum contaminant levels prescribed in the California Code of Regulation, in the discharge cause or contribute to an in stream excursion above a water quality objective. If the discharge has the reasonable potential to cause or contribute to an in-stream excursion above a water quality objective, the Discharger is required to submit information to calculate effluent limitations for those constituents.

#### Effluent/ Receiving Water Limitations

The following is a discussion of the significant changes from the previous permit:

**Total Dissolved Solids** - A Total Dissolved Solids (TDS) limit was included in the permit. The TDS limit was implemented in order to comply with the secondary drinking water standard (500 mg/l) and to stay within a range that protects agricultural use of the water (450 mg/l, annual average). Cooling water discharges, in general, have the potential to have high levels of TDS and therefore a limit was placed in the permit for TDS.

**pH** - A pH limit has been added to the permit at the point of discharge from the facility into the Sacramento City-owned pump station that pumps the water into the concrete lined ditch that conveys the wastewater to Morrison Creek. The limit has been set in order to protect the beneficial uses of Morrison Creek. The limit requires the effluent from the facility to have a pH value in the range of 6.5 - 8.5.

**Chlorine Residual** – A daily maximum effluent limit of 0.02 mg/l and a monthly average effluent limit of 0.01 mg/l have been included in the permit. Chlorine is commonly used in cooling water to prevent and treat biofouling. The limits have been set for aquatic life protection.

**Dissolved Oxygen** – Previous permits issued for this facility contained a receiving water limitation requiring the discharge to not cause receiving water dissolved oxygen to fall below 5.0 mg/l. However, because the beneficial use of cold freshwater habitat applies to this stream segment, the Basin Plan water quality objective for dissolved oxygen is 7.0 mg/l. It is unknown if the Discharger is currently capable of meeting this receiving water limitation. This order provides for a time schedule for meeting the receiving water limitation. The Board considers the application of a water quality objective that has never been applied to Morrison Creek as a new interpretation of the Basin Plan.

#### *Monitoring*

The following is a discussion of significant changes from the previous permit:

**Receiving Water Temperature** - Monitoring station R-4 was removed from the monitoring program. Station R-4 was used as the compliance point to determine compliance with the facility's mixing zone for temperature. The



compliance point for the ambient receiving water temperature limits has been moved in an effort to better protect the beneficial uses of Morrison Creek and to comply with Basin Plan requirements. The compliance point was located several miles downstream from the facility outfall at the Mack Road over-crossing and did not give an adequate representation of the temperature effect the facility was having on Morrison Creek. The determination of the impact due to temperature from the facility on Morrison Creek will be evaluated from a study to be conducted in accordance with Provision E.3. Data submitted by the facility indicates that the facility has been increasing the ambient temperature of Morrison Creek by more than 5° F near the point of discharge into Morrison Creek. There have been no studies to indicate that a mixing zone should be allowed for thermal waste in Morrison Creek for this facility.

**Receiving Water pH** – Receiving water monitoring for pH will be required to be conducted at an additional location. In the past the discharger was required to monitor pH downstream from the point of discharge into Morrison Creek. Now the facility is required to sample upstream from the point of discharge into Morrison Creek as well as at the downstream location. The additional location was required in order to allow Regional Board staff to evaluate the facility's impact on the receiving water pH levels.

**Three Species Chronic Toxicity – Chronic toxicity monitoring shall be conducted to determine whether the effluent is contributing toxicity to Morrison Creek. The facility will be required to conduct chronic toxicity monitoring on a quarterly basis.**

**Priority Pollutant Analyses** – Monitoring for volatile organic compounds, semi-volatile organic compounds, and metals in the effluent from the facility is required four times a year. The facility produces industrial organic chemicals from raw materials off-loaded from trucks and rail cars at the facility. No priority pollutant analyses have been required in the past and information relating to storm water runoff from the facility and potential pollutants that the storm runoff may contain should be evaluated. In addition the facility uses chemicals in the cooling water system to prevent bio-fouling, scaling, and for water softening. The effect of these chemicals on the facility's discharge will be evaluated through the analyses. The facility is required to monitor annually for the constituents during two storm events that produce significant runoff from the facility as well as during normal dry weather operations. The data collected will be used to determine if there is a reasonable potential for the effluent to cause or contribute to violations of any narrative or numeric receiving water objectives for these constituents. The permit can be reopened and the Board may include effluent limitations for constituents of concern.

REL:lmi