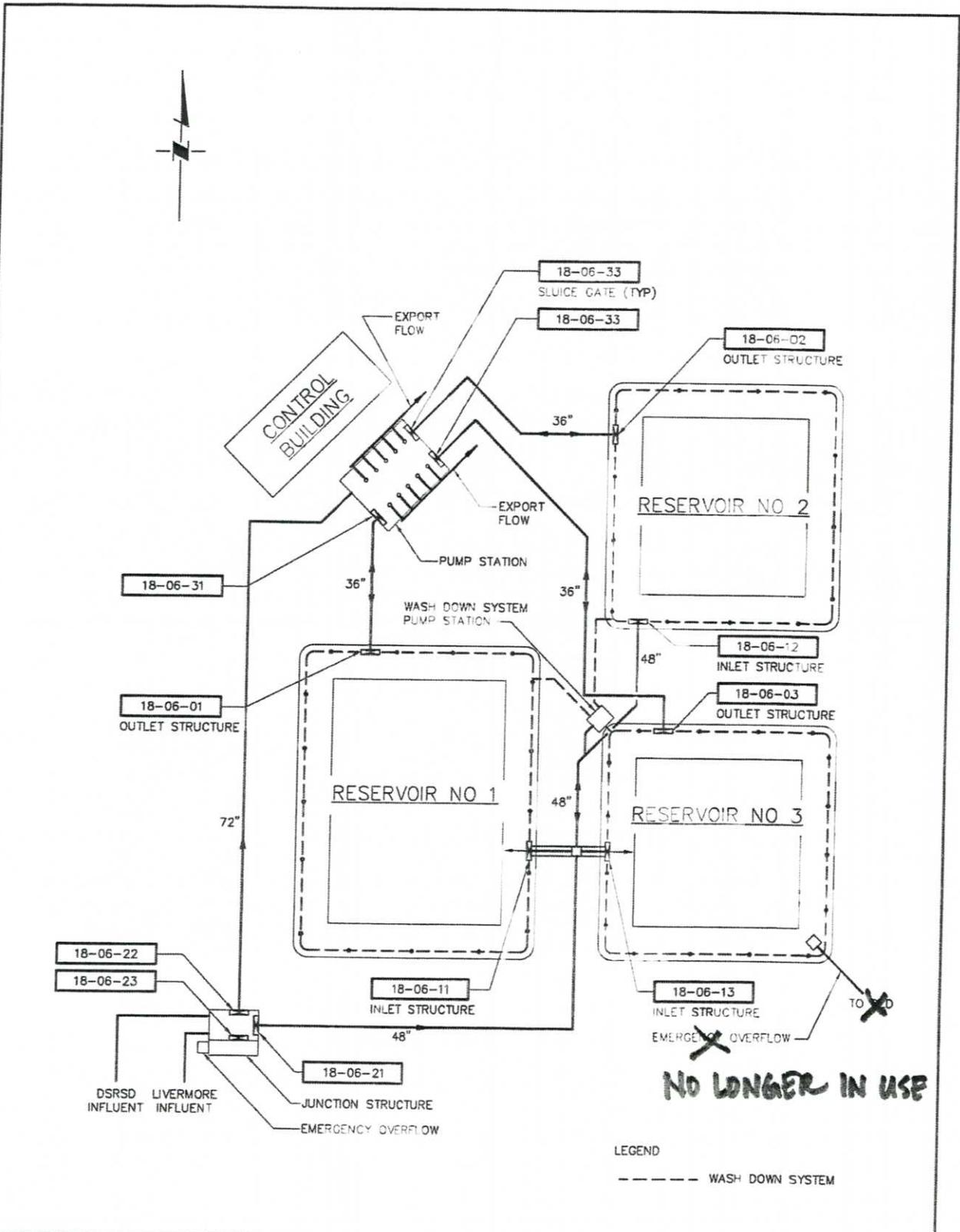


Attachment C Flow Schematic



06/24/04 1=1
M.J.F.

NO LONGER IN USE

LEGEND
 - - - - - WASH DOWN SYSTEM

		LAVWMA	FIGURE NO. 3-3
		RESERVOIR OPERATING SCHEMATIC	JOB NO. 8001.90

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (CFR) at 40 CFR §122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorize the Regional Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements which implement federal and California regulations.

I. GENERAL MONITORING PROVISIONS

- A. The Dischargers shall comply with the MRP for this Order as adopted by the Regional Water Board and with all of the Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits, March 2006 (Attachment G). The MRP may be amended by the Executive Officer pursuant to USEPA regulations 40 CFR 122.62, 122.63, and 124.5. If any discrepancies exist between the MRP and the Attachment G requirements, the MRP prevails.
- B. Sampling is required mainly-only during those periods when discharging. All analysis shall be conducted using current USEPA methods, or that have been approved by the USEPA Regional Administrator pursuant to 40 CFR 136.4 and 40 CFR 136.5, or equivalent methods that are commercially and reasonably available, and that provide quantification of sampling parameters and constituents sufficient to evaluate compliance with applicable effluent limits or to determine if additional effluent limitations are needed. The Regional Water Board will find the Dischargers in violation of the limitation if the discharge concentration exceeds the effluent limitation and the Reporting Level for the analysis for that constituent.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Locations Description

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	M-001	LAVWMA discharge to EBDA Transport System (Latitude 37° 41' 40"N and Longitude 122° 17' 42"W)
002	M-002	At any point in the dischargers' facility at which adequate disinfection and dechlorination of secondary effluent has taken place and prior to the point of discharge to San Lorenzo Creek (Latitude 37° 40' 30"N and Longitude 122° 09' 14"W)
003	M-003	At any point in the dischargers' facility at which adequate disinfection and dechlorination of secondary effluent has taken place and prior to the point of discharge to Alamo Canal (Latitude 37° 41' 10"N and Longitude 121° 54' 54"W)
--	R-001U	At a point located 100 feet upstream from San Lorenzo Creek discharge point, or if access is limited, at the first point upstream which is accessible or at the first weather permitting opportunity <u>while the discharge is occurring</u>
--	R-001D	At a point located 100 feet downstream from San Lorenzo Creek discharge point, or if access is limited, at the first point downstream which is accessible or at the first weather permitting opportunity <u>while the discharge is occurring</u>
--	R-002U	At a point located 100 feet upstream from Alamo Canal discharge point, or if access is limited, at the first point upstream which is accessible or at the first weather permitting opportunity <u>while the discharge is occurring</u>
--	R-002D	At a point located 100 feet downstream from Alamo Canal discharge point, or if access is limited, at the first point downstream which is accessible or at the first weather permitting opportunity <u>while the discharge is occurring</u>

III. INFLUENT MONITORING REQUIREMENTS

Not Applicable

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location M-001

The Discharger shall monitor the flow rate at monitoring location M-001 as follows:

Table E-2. Monitoring Parameters for Monitoring Location M-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Continuous	Continuous

B. Monitoring Location M-002 and M-003

Table E-3. Monitoring Parameters for Monitoring Locations M-002 and M-003

Parameter	Units	Sample Type	Minimum Sampling Frequency	Recommended Analytical Test Method Number, USEPA Report Number, and/or 40 CFR Part
Carbonaceous Biochemical Oxygen Demand 5-day @ 20°C	mg/L	Grab	D	SM 5210B follow step 4.e.6 for nitrification inhibition
Total Suspended Solids	mg/L	Grab	D	SM 2540 D
Total Chlorine Residual	mg/L	Grab	D	SM 450-Cl B, C, D, F, or G
Total Fecal Coliform Organisms	MPN	Grab	D	SM 9221 B
pH	Units	Grab	D	SM 4500-H+ B
Oil and Grease	mg/L	Grab	D	EPA 1664
Flow	MGD	Continuous	Each discharge event	During extreme storm events, the gallon per minute flow rate shall also be reported for every hour of that extreme storm period
Volume of treated wastewater stored in flow equalization reservoirs and storage ponds	MG	Continuous	During each discharge event	Best Professional Measurement
Total Solids	mg/L	Grab	D	SM 2540B
Total Dissolved Solids	mg/L	Grab	D	SM 2540 C
Temperature	Degree C	Grab	D	SM 2550 B
Nitrate (as-N and NO3)	mg/L	Grab	D	SM 4500-NO3- E, F, or H
Nitrite (as-N)	mg/L	Grab	D	SM 4500-NO2-B
Total Ammonia (as-N)	mg/L	Grab	D	SM 4500-NH3- C, D, E, F, or G
Un-ionized Ammonia (as-N)	mg/L	Calculated from Total Ammonia	D	Calculated from Total Ammonia
Copper	ug/L	Grab	Q	EPA 200.9
Lead	ug/L	Grab	Q	EPA 200.9
Mercury	ug/L	Grab	Q	EPA 1631
Nickel	ug/L	Grab	Q	EPA 249.2
Selenium	ug/L	Grab	Q	SM 3114B or C
Silver	ug/L	Grab	Q	EPA 273.2
Zinc	ug/L	Grab	Q	EPA 200 or EPA 289
Cyanide	ug/L	Grab	Q	Standard Method 4500-CN-C or I
TCDD TEQ	ug/L	Grab	Q	EPA 1613
Chlorodibromo-methane	ug/L	Grab	Q	EPA 601
Dichlorobromo-methane	ug/L	Grab	Q	EPA 601
Bis(2-ethylhexyl) Phthalate	ug/L	Grab	Q	EPA 606 or EPA 625

Comment [VH1]: This is an intermittent, 20-year flow event wet weather discharge. Not necessary to monitor priority pollutants.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Recommended Analytical Test Method Number, USEPA Report Number, and/or 40 CFR Part
Chrysene	ug/l	Grab	Ø	EPA-625
Aldrin	ug/l	Grab	Ø	EPA-608
Alpha-BHC	ug/l	Grab	Ø	EPA-608
Beta-BHC	ug/l	Grab	Ø	EPA-608
Gamma-BHC	ug/l	Grab	Ø	EPA-608
Chlordane	ug/l	Grab	Ø	EPA-608
Dieldrin	ug/l	Grab	Ø	EPA-608
Total PCBs	ug/l	Grab	Ø	EPA-608
Tributyltin	ug/l	Grab	Ø	Battelle N-0959-2606, EBMUD method for treated wastewater, or SM-6710 (online version only)
Diazinon	ug/l	Grab	Ø	EPA-614
Chlorpyrifos	ug/l	Grab	Ø	EPA-614
Asbestos	mg/l	Grab	Ø	EPA-100-2 (EPA-600/R-94-134, June 1994)
DDT	ug/l	Grab	Ø	EPA-608

Notes: D = Per event if discharge duration is less than 24 hours or daily during 24 hours or longer events.
Ø = Once during the discharge event.
SM = Standard Methods

V. Whole Effluent Toxicity Testing Requirements

Due to the intermittent nature of this discharge and the impracticability of conducting toxicity testing for a short term discharge, no toxicity testing is required. In case of a discharge to M-002 or M-002 and M-003, the Dischargers shall monitor the acute toxicity of dechlorinated effluent at monitoring locations M-002 or M-002 and M-003 as follows:

Table E-4. Toxicity Testing for Monitoring Locations M-002 and M-003

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
96-hour static non-renewal acute toxicity on rainbow trout test fish	% Survival	Grab	Once during any discharge period	US EPA October 2002 5 th Edition (EPA-821-R-02-012)

Comment [VH2]: This permit is for an intermittent, emergency wet weather discharge. The frequency is so low that such a discharge has never occurred. A Bioassay should not be required.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

Not Applicable

VII. RECLAMATION MONITORING REQUIREMENTS

Not Applicable

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

During discharge events, the Discharger shall monitor San Lorenzo Creek and Alamo Canal at monitoring locations R-001U, R-001D, R-002U, R-002D as follows:

Table E-5. Receiving Water Monitoring Locations R-001U, R-001D, R-002U, and R-002D

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method Number, USEPA Report Number, and/or 40 CFR Part
All Applicable Standard Observations		Observe and take pictures as needed	D	

Notes: D = Per event if discharge duration is less than 24 hours or daily during 24 hours or longer events.

IX. OTHER MONITORING REQUIREMENTS

Not Applicable

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

The Discharger shall comply with all Standard Provisions (Attachment D) and Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits, April 2006 (Attachment G) related to monitoring, reporting, and record keeping.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Dischargers to electronically submit self-monitoring reports. Until such notification is given, the Dischargers shall submit self-monitoring reports in accordance with the requirements described below. The Discharger has the option to submit all monitoring results in an electronic reporting format approved by the Executive Officer pursuant to Standard Provisions Section L.4.i.
2. The Dischargers shall submit Self Monitoring Reports including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. These reports are due on May 1 of each year covering the monitoring conducted during the entire year.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-6. Monitoring Periods and Reporting Requirements

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
As described in Tables E-3, E-4, and E-5	First day of each discharge event	From first day until one <u>day/week</u> after the last day of each discharge event	May 1

4. The Dischargers shall report with each sample result the applicable Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.
5. The Dischargers shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations.
6. The Dischargers shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

7. SMRs must be submitted to the Regional Water Board, signed and certified as required by the standard provisions (Attachment D), to the address listed on the next page:

**California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612**

C. Discharge Monitoring Reports (DMRs)

1. As described in Section X.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Dischargers to electronically submit self-monitoring reports. Until such notification is given, the Dischargers shall submit discharge monitoring reports (DMRs) in accordance with the requirements described below.
2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharge shall submit the original DMR and one copy of the DMR to the address listed below:

State Water Resources Control Board
Discharge Monitoring Report Processing Center
Post Office Box 671
Sacramento, CA 95812
3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated or modified cannot be accepted.

ATTACHMENT F – FACT SHEET

As described in Section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

I. PERMIT INFORMATION

- A.** Livermore-Amador Valley Water Management Agency (LAVWMA), ~~Dublin San Ramon Services District (DSRSD), and City of Livermore Water Reclamation Plant (City of Livermore)~~ (hereinafter Dischargers) ~~is~~ are the owner of LAVWMA export and storage facilities ~~and DSRSD and City of Livermore storage ponds (hereinafter Facility)~~. LAVWMA is the owner of ~~the 18 MG in storage flow equalization reservoirs,~~ 41.2 MGD pump station, approximately 16-mile transmission line, and San Lorenzo Creek and Alamo Canal dechlorination stations. ~~DSRSD and City of Livermore are the owners of the 18.9 MG and 15 MG storage ponds, respectively.~~ LAVWMA has a contract with DSRSD for operating and maintaining the LAVWMA export pipeline, pump stations, and both dechlorination facilities.
- B.** For a discharge of treated wastewater to San Lorenzo Creek and Alamo Canal, both ~~a~~ waters of the United States, the Facility is currently subject to Order 99-023, which was adopted on May 25, 1999, and expired on May 25, 2004. The terms and conditions of the current Order have been automatically continued and remain in effect until new Waste Discharge Requirements and NPDES permit are adopted pursuant to this Order.
- C.** The ~~Dischargers~~ filed a report of waste discharge and submitted an application for renewal of its ~~Waste Discharge Requirements (WDRs)~~ and National Pollutant Discharge Elimination System (NPDES) permit on April 27, 2004. Supplemental Information was requested ~~beginning on~~ January 18, 2005, and received on May 3, 2005, May 23, 2005, November 28, 2005, December 13, 2005, and December 20, 2005. A site visit was conducted on January 18, 2005, to observe operations and collect additional data to develop permit limitations and conditions. The ~~Dischargers~~ does not expect to discharge during the term of this ~~waste discharge requirements permit~~ (as projected in Attachment H) because a recent ~~facility pipe~~ expansion has provided ample pumping capacity to handle flows.

Comment [VH1]: See comment in TO DSRSD and Livermore are not dischargers. LAVWMA facilities are owned by LAVWMA, and not by DSRSD and Livermore.

Comment [VH2]: This permit does not allow discharge from any DSRSD or Livermore facility, and in no event, allows discharge from the DSRSD or Livermore storage ponds.

Comment [VH3]: the reservoirs are not used for flow equalization. This is handled via the pump station wet well.

Comment [VH4]: Only LAVWMA filed to renew the LAVWMA permit. Any applications by DSRSD or Livermore are separate from this emergency discharge permit.

Comment [VH5]: WDRs are not in effect yet - until they are approved, we cannot say that this permit satisfies WDR requirements.

II. FACILITY DESCRIPTION

A. Description of Dry Weather Flow Management

The Dischargers ~~has~~ been using EBDA's system for decades without any need to discharge to San Lorenzo Creek or Alamo Canal. During dry weather, LAVWMA receives an average flow of 16.5 MGD of secondary treated wastewater from DSRSD and City of Livermore. During extreme storm events, however, ~~LAVWMA the Dischargers~~ expects to receive significantly more secondary treated wastewater. For example, during the El Nino storm on January 10, 1998, the Dischargers received 33.6 MGD of secondary treated wastewater. LAVWMA's contract with EBDA allows up to 41.2 MGD discharge to EBDA's facility, but the contract requires the discharge to EBDA's pipe to be reduced to 19.7 MGD should EBDA not have adequate capacity to accept the additional 21.5 MGD of flow during extreme storm events.

Comment [VH6]: DSRSD and Livermore don't receive their own wastewater - this underscores the point that DSRSD and Livermore are not the dischargers.

B. Description of Extreme Storm Events Flow Management

During extreme storm events, the Dischargers generally implements the following steps to utilize full capacity of discharge pipe to EBDA's system and reduce the need for a discharge to San Lorenzo Creek or Alamo Canal:

- a. LAVWMA fills the 18 MG ~~storage rFlow Equalization Reservoirs~~ capacity to 75% full;
- b. DSRSD begins storage in its 18.9 MG capacity storage pond and Livermore is notified of situation;
- c. When the LAVWMA 18 MG ~~storage rFlow Equalization Reservoirs~~ are 90% full, DSRSD continues storage at the DSRSD facility and Livermore begins storage in its 15 MG capacity ponds;
- d. LAVWMA, DSRSD, and Livermore fill all storage facilities to 100%;
- e. ~~DSRSD LAVWMA~~ notifies the Regional Board and Alameda County Water District (ACWD) and begins de-chlorination before any discharge ~~to San Lorenzo Creek or San Lorenzo Creek and Alamo Canal~~; and
- f. ~~After EBDA notifies LAVWMA that EBDA has adequate capacity to accept the additional 21.5 MGD of flow or a portion of 21.5 MGD, LAVWMA discharges the stored effluent to EBDA immediately to ensure that the Facility is ready for the next possible extreme storm event.~~

Comment [VH8]: If this notification occurs, it would be by DSRSD staff only in their role as contract operators for LAVWMA. Therefore, the notification would be by LAVWMA.

Comment [VH9]: In this situation, flow would not be allowed to San Lorenzo Creek. Flow is allowed to SLC only if EBDA does not have adequate capacity. Discharging to SLC will not relieve pumping constraints at the pump station and will therefore not relieve conditions requiring overflow to Alamo Canal.

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Comment [VH10]: This is wrong. LAVWMA will start pumping again after incoming flows subside to below the maximum pumping capacity of 41.2 mgd. This is not related to EBDA capacity.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Effluent limitations contained in the existing Order for discharges to San Lorenzo Creek and Alamo Canal (Monitoring Locations M-002 and M-003) and representative monitoring data from the term of the previous Order are as follows:

Table F-1. Historic Effluent Limitation and Monitoring Data

Parameter (units)	Effluent Limitation			Monitoring Data (From May 25, 1999 To April, 2006)		
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Total Suspended Solids (mg/L)			60			
Settleable Matter/ ml/L-hr			0.2			
Total Chlorine Residual (mg/L)			0.06			
Carbonaceous Biochemical Oxygen Demand 5-day @ 20°C (mg/L)			50			
pH	The pH of the discharge shall not exceed 9.0 nor be less than 6.0					

Comment [VH11]: Follows the Basin Plan Table 4-2 C1.

Parameter (units)	Effluent Limitation			Monitoring Data (From May 25, 1999 To April, 2006)		
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Fecal Tota Coliform Bacteria/MPN	Value for the Most Probable Number (MPN) of fecal coliform bacteria in any single sample shall not exceed 1,100 MPN/100 ml, consistent with the DSRSD, Livermore, and EBDA effluent limits which is expected value in receiving waters. The operational goal for the discharges shall be 240 MPN/100 ml.			This discharge has never occurred.		
				This discharge never occurred.		

Comment [VH12]: This is not a continuous discharge permit. There is no basis or rationale for "operational goals."

D. Compliance Summary

No discharge has occurred under the current waste discharge requirements. However, the Dischargers reported 27 spills for the period from October 20, 1999, through October 25, 2005, and ~~the~~ has completed corrective actions as of December 20, 2005. Table F-3 lists the spills and completed corrective actions.

Table F-2. LAVWMA Spills (October 20, 1999, through October 25, 2005) and Status of Corrective Actions as of December 20, 2005

DATE	VOLUME	LOCATION	Cause	Current Status of Corrective Actions as of December 20, 2005
10/20/99	600 gallons	5 East Lewelling Blvd.	Cracked 1/2" valve	New valve
11/06/99	Foam-secondary effluent	Oceanview Dr. -Hayward	Failed vent Valve	New valve
01/02/00	Foam-secondary effluent	Eden Canyon Rd. Castro-Valley	Failed vent Valve	New valve
01/06/00	Foam-secondary effluent	Dublin Canyon Rd-Castro-Valley	Failed vent Valve	New valve
01/10/00	Foam-secondary effluent	Dublin Canyon Rd-Castro-Valley	Failed vent Valve	New valve
04/24/00	Foam-secondary effluent	Dublin Canyon Rd-Castro-Valley	Failed vent Valve	New valve
06/03/01	Foam-secondary effluent	Mission & Georgan-San Leandro	Failed vent Valve	New valve
11/02/01	Foam-secondary effluent	Mission & Georgan-San Leandro	Failed vent Valve	New valve
11/12/01	Foam-secondary effluent	Lewelling Blvd.	Failed vent Valve	New valve
12/20/01	Foam-secondary effluent	Lewelling Blvd.	Failed vent Valve	New valve
01/10/02	500 Gallons secondary effluent	Lewelling Blvd. & Brunswick	Failed vent Valve	New valve
02/15/02	No volume noted	Dublin-Canyon & Foothill, Pleasanton, Ca.	Contractor Hit Pipe	Contractor repaired pipe New pipeline

DATE	VOLUME	LOCATION	Cause	Current Status of Corrective Actions as of December 20, 2005
10/30/02	20,000-30,000 gallons of secondary effluent	Foothill Blvd. between Grove and Apple in the City of Hayward	Pipewall Failure	New pipeline
02/18/02	<50 gallons	East Castro Valley Blvd, Castro Valley	Failed vent Valve	New valve
04/16/03	500 gallons of secondary effluent	Near the intersection of Dublin Canyon and Five Canyons Road in Castro Valley	Pipewall Failure	New pipeline
04/19/03	2000 gallons of secondary effluent	Near 9000 Dublin Canyon Road in Castro Valley	Failed vent Valve	New valve
05/15/03	15 to 20 gallons per minute	At the intersection of Grove Way and Oak Street in Castro Valley	Pipewall Failure	New pipeline
07/10/03	153,000 gallons of potable testing water	East Castro Valley Blvd., Castro Valley	Pipewall Failure Contractor Error	New pipeline Contractor repaired testing apparatus
01/06/04	50,000 gallons of secondary effluent	Castro Valley	?? what was this?	
04/14/04	Foam-secondary effluent	Lewelling Blvd. and Mission Blvd.	Failed vent Valve	New valve
10/09/04	216,000 gallons of secondary effluent	20840 Birch Street, Castro Valley	Failed vent Valve	New valve
10/21/04	1,800 gallons of secondary effluent	Castro Valley Blvd., Castro Valley	Pipewall Failure	New pipeline
10/26/04	1,200 gallons of secondary effluent	Gail Drive and Grove Way, Castro Valley	Pipewall Failure	New pipeline
02/02/05	200,000 gallons of potable water(hydrostatic test)	Intersection of Dublin Canyon Road and Canyon Creek Circle in Pleasanton, CA	Pipe joint Failure during construction pipe test	Pipe-joint replaced by contractor
08/29/05	5 to 7 gallons per minute (call received at 15:30 pm - secured at 15:40 pm)	Inglewood Drive between Willow Road and Chabot Drive in Pleasanton	Failed vent Valve	New valve
09/13/05	500 gallons of secondary effluent	Lewelling Blvd. between Brunswick and Calgary Streets in San Leandro	Failed vent Valve	New valve
10/25/05	5,000 gallons of secondary effluent/Contained	LAVWMA Pump Station	Valve alignment	Alignment corrected

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the Order are based on the requirements and authorities described in this section.

A. Legal Authorities:

Legal authorities are Section 402 of Clean Water Act, Chapter 5.5 in Division 7 of the California Water Code (CWC), and Article 4 in Chapter 4 of the CWC. NPDES Permit/USEPA concurrences are based on 40 CFR 123 and Order expiration and reapplication are based on 40 CFR 122.46(a).

B. State and Federal Regulations, Policies, and Plans

1. Water Quality Control Plan (Basin Plan).

All beneficial uses listed in the Order are from Basin Plan. The beneficial uses for San Lorenzo Creek and lower San Francisco Bay are listed in Table 2-4 (Page 2-17). The tributary rule is explained on Page 2-5. The beneficial uses for Alamo Canal are listed in Table 2-1 of the November 2005 amendment. The beneficial uses for the groundwater basins are listed in Table 2-9 (page 2-28).

2. Thermal Plan.

The State Water Board adopted a Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California (Thermal Plan) on

May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for surface waters. The Regional Board has included this Plan in Page 3-4 of the Basin Plan.

3. State Implementation Policy.

The SIP includes procedures for determining the need for and calculating water quality-based effluent limitations (WQBELs), and requires Dischargers to submit data sufficient to do so. The SIP also requires that final concentration-based WQBELs be included for all pollutants having reasonable potential to cause or contribute to an exceedence of applicable water quality standards. This Order requires the Dischargers to submit monitoring data per Attachment E and ~~submit a report to the Water Board. Due to the intermittent nature of this discharge WQBELs are not required and are unlikely to be required in the future. The Water Board reserves the right to consider future WQBELs, and in case of a discharge a monitoring proposal sufficient for obtaining other necessary monitoring data. These data will be used to determine the need for and calculating WQBELs for all groups of pollutants listed in CTR and Basin Plan that are related to this discharge.~~

4. Anti-Backsliding Requirements.

The previous permit had effluent limits for Lead and Mercury, but this permit has no water quality based effluent limits. This is because no discharge has occurred, and the most representative monitoring data do not support that combined effluent poses a threat to water quality. For example, Lead and Mercury were not detected in concentrations exceeding the applicable water quality objectives in a December 2003 grab sample of the combined effluent discharged to EBDA's pipe. The previous permit also had effluent limits for Settleable Matter, but this permit has no such limits. The basis for this deletion is the exception provided by the January 2004 amended Basin Plan that requires no Settleable Matter limitations for ~~secondary and advanced sewage sanitary wastewater treatment plants/facilities which provide secondary level of treatment.~~ This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

D. Impaired Water Bodies on CWA 303(d) List and other documents

On June 6, 2003, the USEPA approved a revised list of impaired water bodies prepared by the State (hereinafter referred to as the 2002 303(d) list). The pollutant ~~listed as~~ impairing ~~the~~ San Lorenzo Creek and Alameda Creek (~~tributary to~~ Alamo Canal ~~tributary~~) is diazinon and pollutants impairing the lower San Francisco Bay include chlordane, DDT, diazinon, dieldrin, dioxin compounds, exotic species, furan compounds, mercury, nickel, total PCBs, and PCBs (dioxin like). Municipal wastewater treatment facilities provided no information that their facilities may be a major source of "exotic" species. ~~The draft 2004 303(d) list proposes delisting diazinon and nickel for the lower San Francisco Bay. However, in case of a discharge and having the above 303(d) pollutants other than "exotic" species detected in the effluent, this Order requires the Dischargers to propose a receiving water monitoring program, as coordinated with the regional surface water and groundwater ambient monitoring programs, for every 303(d)-listed-detected pollutants.~~ The SIP requires final effluent limitations for all 303(d)-listed pollutants to be based on total maximum daily loads and associated waste load allocations (~~hereinafter referred to as Restoration Requirements~~). ~~Zone 7 Water Agency has also reported groundwater basins impairment collectively referred to as "increasing level of total~~

Comment [VH13]: There will be no TDS impairment of the groundwater basins due to the nature and timing of flow. The RWQCB has not previously defined or sanctioned the requested restoration plans.

~~dissolved solids in the main groundwater basin". Zone 7 has both surface and groundwater management plans with goals that will not only address flood control, but also integrate water supply and quality, riparian habitat, and recreational beneficial uses. This permit may be reopened to include any San Lorenzo Creek, Alameda Creek, and/or main groundwater basins Restoration Requirements adopted by Zone 7 Water Agency, Alameda County Water District, the Regional Water Board, and/or USEPA.~~

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations; and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 CFR Section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR Section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. This permit includes prohibitions and effluent limitations based on Basin Plan and Best professional judgment (BPJ). BPJ is defined as the highest quality technical opinion developed by a permit writer after consideration of all reasonably available and pertinent data or information that forms the basis for the terms and conditions of a NPDES permit. The authority for BPJ is contained in Section 402(a)(1) of the CWA.

A. Discharge Prohibitions

Prohibition III.A, no discharge of treated wastewater at a location or in a manner different from that described in this Order, is based on CWC that requires filing of a report of waste discharge before a permit to discharge can be granted.

~~**Prohibition III.B**, no discharge of extracted groundwater or groundwater concentrate, treated or untreated, into the LAVWMA facility is prohibited unless specifically permitted by the Regional Water Board, is based on CWC, Article 4 Waste Discharge Requirements, Section 13260 that requires filing of a report of waste discharge before a permit to discharge can be granted.~~

Comment [VH14]: See comment in TO.

Prohibition III.CB, discharge to Alamo Canal is prohibited unless both the Regional Water Board and Alameda County Water District are notified that allowable ~~capacity of~~ discharge to EBDA's system, storage capacity of the flow-equalization basins, and ~~capacity of required~~ discharge to San Lorenzo Creek are fully utilized, ~~is~~ based on BPJ. The reason that ACWD shall be notified is because ACWD is responsible ~~for~~ ~~to~~ operating the intake to the areas recharging Niles Cone groundwater designated as ~~the~~ source of drinking water ~~for its service area in Alameda Creek Watershed.~~

Prohibition III.DC, no discharges during dry weather, is based BPJ and the following facts:

- Both DSRSD and City of Livermore have separate NPDES permits for continuous dry weather discharges to lower San Francisco Bay via LAVWMA/EBDA facilities;
- The Dischargers submitted the waste discharge application for discharges only during ~~the~~ extreme storm events and the waste discharge requirements in this permit are only for discharges during extreme storm events; and

Comment [VH15]: The DSRSD and Livermore permits are for continuous discharge to lower San Francisco Bay, during both wet and dry weather.

- Table 4-1 of the Basin Plan ~~has extensive prohibitions for dry weather discharges. For example, item 4 of the Table 4-1 prohibits discharging any wastewater which has particular characteristics of concern to beneficial uses to Alameda Creek when no natural flow occurs. The Basin Plan also states (p. 4-5) that the Regional Board may consider an exception to Prohibition 4 provided that any proposed reclamation project demonstrates that beneficial uses will be protected. Table 4-1 includes a discussion that the threat of dissolved solids, stable organics, and other pollutant accumulation in the groundwater of the basins recharged with waters of Alameda Creek is critical in the dry weather period when wastewater could account for much of the water percolating to the basin.~~

Comment [VH16]: This sentence does not apply as the emergency discharges occur during a 20-year flow event, during wet weather. There is no permitted discharge during dry weather.

Prohibition III.FD, no bypass or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses, is based on 40 CFR Sections 122.41(m).

Prohibition III.FE, no ~~average daily~~ discharge to San Lorenzo Creek ~~or San Lorenzo Creek and Alamo Canal~~ exceeding 21.5 MGD after full use of available EBDA capacity, ~~or discharge to Alamo Canal in events less than a 20-year flow event.~~ ~~are~~s based on the requested flow in the Discharger's waste discharge application.

B. Technology-Based Effluent Limitations

1. **Scope and Authority:** The CWA requires that technology-based effluent limitations are established based on several levels of controls. The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in Section 304(d)(1)]. Section 301(b)(1)(B) of that Act requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the USEPA Administrator. Based on this statutory requirement, USEPA developed secondary treatment regulations, which are specified in 40 CFR 133. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment. Table 4-2 of the Basin Plan includes these minimum levels of secondary treatment expectations.

2. Applicable Technology-Based Effluent Limitations: The primary reference for the technology-based effluent limits is Table 4-2 of the Basin Plan. LAVWMA is currently accepting secondary level treated wastewater from DSRSD and the City of Livermore. This permit includes secondary level technology-based effluent limitations for the combined effluent. ~~The quality of the treated wastewater that may need to be discharged during an extreme storm event will most likely be better than the minimum required secondary level of treatment. This is due to the fact that both DSRSD and City of Livermore have installed advanced treatment systems, such as micro-filtration (reverse osmosis) and continuously backwashed sand filtration tertiary treatment system, to treat about 13 MGD of their secondary treated effluent to levels of quality good for recycling for uses such as irrigation. However during an extreme storm event, the demand for the irrigation uses may drop significantly and the Dischargers may have million of gallons of highly treated water that may need to be discharged to the flow equalization basins and storage ponds before being discharged to San Lorenzo Creek or to San Lorenzo Creek and Alamo Canal. In this case, the quality of water stored at the Facility may exceed the minimum secondary standards. The~~ basis for ~~these~~ other parameters is explained as follows:

Comment [VH17]: This is not true. DSRSD and Livermore send secondary treated effluent to LAVWMA. They have no reason or requirement to send more highly treated water to the LAVWMA facilities.

a. ~~In order to be consistent with the Federal and Basin Plan Table 4-2 limitations, the maximum daily limits of 60 mg/l for TSS and 50 mg/L for BOD are retained from the prior permit for this intermittent peak wet weather discharge, consistent with the limits in the Livermore, DSRSD, and EBDA permits. Basin Plan Table 4-2, Footnote d(2) allows the Regional Board to adopt less stringent limits for wet weather discharges, were replaced with Average Monthly and Average weekly limits. Except for Fecal Total Coliform Organisms Maximum Daily limit, the reference for Table 7 effluent limits is Table 4-2 of the Basin Plan. Basin Plan Table 4-2 lists a 240 MPN/100 limit for Total Coliform Organisms. But the Note "e" in this Table allows an exception. An exception to 240 MPN/100 limit is granted because the beneficial uses will not be compromised based on the following facts:~~

Comment [VH18]: This cannot apply. The nature of any potential overflow is intermittent and infrequent. There will not be average monthly or average weekly flows, and therefore cannot be such limits, which would not be measurable. LAVWMA is not a POTW and does not hold a continuous discharge permit.

- i. This permit prohibits discharge during dry weather, and
- ii. The contact and non-contact water recreations during extreme storm events are less than the number of the same recreations during dry weather, and
- iii. This permit requires the Dischargers to have an operational goal of 240 MPN/100 limit for Total Coliform Organisms during a discharge.

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b. ~~The basis for "the average monthly percent removal of CBOD 5 day 20°C and total suspended solids shall not be less than 85 percent" is Basin Plan Table 4-2.~~

Comment [VH19]: An "operational goal" does not apply, because there is not permit for "operational" conditions. Such permits are held individually, by DSRSD and Livermore. This permit is for an intermittent, infrequent, emergency overflow only.

c. ~~Since this is an intermittent discharge, "the survival of ... test fish ... of the discharge shall not be less than 70%" requirement is sufficient to quantify any potential acute toxicity. The basis for this requirement is Basin Plan Table 4-4. The basis for using rainbow trout and 96-hour static renewal bioassays is BPI.~~

Comment [VH20]: See related comment above.

Comment [VH21]: 96-hour test does not apply since this is an intermittent, extreme wet weather overflow of limited duration - certainly less than 96 hours.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority: As specified in 40 CFR Section 122.44(d)(1)(i), permits are required to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an excursion above any state

water quality standard. The process for determining reasonable potential and calculating QBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or water quality criteria contained in the Basin Plan, CTR, and NTR.

2. **Applicable Beneficial Uses and Water Quality Criteria and Objectives:** The applicable beneficial uses are explained in Finding II.H. The applicable water quality criteria and objectives are in the Basin Plan Tables 3-5, 3-6, and 3-7, CTR, and NTR.

Comment [VH22]: Need to include a rationale for the uses for Alamo Canal that are based on the tributary rule and the uses of Arroyo de la Laguna.

D. Final Effluent Limitations

~~Except for acute toxicity I,~~ this permit includes no QBELs. This is because:

- a) This discharge has never occurred and, based on Attachment H, no discharge may happen during the term of this permit;
- b) No monitoring data, representing the quality of the combined effluent during an extreme storm event, are available to conduct the SIP reasonable potential analysis; ~~and~~
- c) The most representative monitoring data does not suggest that ~~the~~ combined effluent poses a threat to water quality; ~~and~~
- d) Effluent discharged by Livermore and DSRSD to LAVWMA is regulated by the requirements of the respective NPDES permits held by Livermore and DSRSD. If a discharge were to occur due to a 20-year or greater flow event, the effluent would receive a greater than 10:1 dilution.

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In case of a discharge, the Dischargers will collect monitoring data that will be used to determine any potential impacts from this discharge. In this case, the permit may be reopened to have the required effluent limitations added to this permit.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water: These limitations are based on the narrative/numerical objectives contained in Chapter 3 of the Basin Plan as explained below:

- The basis for V.1.a is on page 3-3 of the Basin Plan;
- The basis for V.1.b is on page 3-2 of the Basin Plan;
- The basis for V.1.c is on pages 3-3 and 3-4 of the Basin Plan
- The basis for V.1.d is on page 3-3 of the Basin Plan;
- The basis for V.1.e is on pages 3-2, 3-3, and 3-4 of the Basin Plan;
- The basis for V.2.a is on pages 3-3 of the Basin Plan;
- The basis for V.2.b is on pages 3-3 and 3-4 of the Basin Plan and BPJ;
- The basis for V.2.c is on pages 3-3 of the Basin Plan;
- The basis for V.2.d is on pages 3-4 of the Basin Plan; and
- The basis for V.3 is on pages 3-5 of the Basin Plan.

B. Groundwater: Impacts to groundwater do not apply to this discharge.
These limitations are on Page 3-6 of the Basin Plan.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the California Water Code authorize the Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program, Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the Monitoring and Reporting Program for this facility.

A. Effluent Monitoring

Table F-3. Basis for Effluent Monitoring

Parameter	Basis
Carbonaceous Biochemical Oxygen Demand 5-day @ 20°C, Total Suspended Solids, Total Chlorine Residual, Total Coliform Organisms, pH, Oil and Grease, Flow, and Volume of treated wastewater stored in flow equalization reservoirs and storage ponds	Needed for Compliance Determination and Documentation
Total Solids	For Reasonable Potential Analysis and August 6, 2001, 13267 Letter Requirement for Monitoring of Pollutants in Effluent and Receiving Water to Implement New Statewide Regulations and Policy (Hereinafter 13267 Letter Requirement) requires Total Solids monitoring to be conducted at the same time as monitoring for dioxins and furans, and PCBs (PCBs was detected in DSRSD effluent sample(s) exceeding the water quality objective)
Total Dissolved Solids and Nitrate (NO ₃)	Pollutants listed in Basin Plan Tables 3-5, 3-6, and 3-7
Temperature, Total Ammonia, and Un-ionized Ammonia	Pollutants listed in Basin Plan Page 3-4
NO ₃ plus NH ₄	Pollutants listed in Basin Plan Table 3-6
Nitrite (NO ₂) and Nitrate (NO ₃) plus Nitrite (NO ₂)	Pollutants listed in Basin Plan Tables 3-5 and 3-6
Copper, Lead, Mercury, Silver, Zinc, Cyanide, TCDD, TEQ, Bis(2-ethylhexyl) Phthalate, Aldrin,	For reasonable potential analysis of a pollutant listed with water quality objective in CTR and detected in DSRSD and City of Livermore effluent sample(s) exceeding the water quality objective
Nickel, Selenium, Chlorodibromo-methane, and Dichlorobromo-methane	For reasonable potential analysis of a pollutant listed with water quality objective in CTR and detected in City of Livermore effluent sample(s) exceeding the water quality objective
Chrysene, Alpha-BHC, Beta-BHC, Gamma-BHC, Chlordane, Dieldrin, and Total PCBs	For reasonable potential analysis of a pollutant listed with water quality objective in CTR and detected in DSRSD effluent sample(s) exceeding the water quality objective
Tributyltin, Chlorpyrifos, and Asbestos	13267 Letter Requirement
Diazinon	13267 Letter Requirement, 303d list pollutant for both receiving waters
DDT, furan compounds, PCBs (dioxin-like)	Other 303d list pollutants

B. Receiving Water Monitoring

The basis for requiring only standard observations is the fact that no discharge has occurred yet and the Dischargers may find no need to discharge during the term of this permit.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which in accordance with 40 CFR Sections 122.41 and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D to the Order.

Comment [VH23]: Why not include by reference as discussed in the next paragraph?

Title 40 CFR Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all state-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. 40 CFR Section 123.25(a)(12) allows the State to omit or modify conditions to impose more stringent requirements. In accordance with Section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR Sections 122.41(j)(5) and (k)(2) because the enforcement authority under the CWC is more stringent. In lieu of these conditions, this Order incorporates by reference CWC section 13387(e).

B. Basis for Special Provisions B.1 through B.2

1. The Basis for “Reopener Provisions” is 40CFR123.
2. The rationale for requiring this technical report is explained as follows:
 - a. In case of a discharge to document effluent and receiving water quality pursuant to Table E-2, “an effluent, groundwater, and receiving water monitoring proposal for protecting the beneficial uses of all receiving water bodies ...” is needed because this discharge can recharge groundwater basins that are used for municipal uses. The reason that the Dischargers shall consult Alameda County Water District and coordinate their receiving water monitoring proposal with the regional surface water and groundwater ambient monitoring programs, is to ensure a cost-effective monitoring of the receiving waters.
 - b. “Future wet-weather flow projection data” are needed to update the projection in the Attachment H;
 - c. Detailed information on facility (i.e. LAVWMA’s daily discharge rate to EBDA’s pipe, as well as LAVWMA’s 18 MG flow equalization reservoirs and DSRSD and City of Livermore storage ponds capacity utilization data for 30 days prior to discharge and until discharge ceases) would enable the Regional Water Board to determine if the procedures documented in Section II.B on Page 2 of this Fact Sheet were fully followed; and
 - d. In case of a discharge or spill, the Dischargers shall focus on additional preventive measures for reducing the risk of future discharges and spills. These preventive measures shall be added to LAVWMA’s Operation and Maintenance Manual.

Comment [VH24]: Report requirement does not apply to an intermittent discharge.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board) is considering the reissuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the Livermore-Amador

Valley Water Management Agency San Lorenzo Creek and Alamo Canal Dechlorination Facilities. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to ~~reissue~~~~prescribe~~ waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through a legal notice published in Valley Times newspaper.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on March 16, 2006.

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: April 12, 2006
Time: 9:00 AM
Location: Elihu Harris State Building (1st Floor auditorium)
1515 Clay Street (walking distance from City Center 12th Street BART station)
Oakland, CA 94612

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is <http://www.waterboards.ca.gov/sanfranciscobay> where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above during regular office hours, which are generally weekdays from 8:00 a.m. to 5:00 p.m., excluding 12:00 p.m. to 1:00 p.m. lunch hours and holidays. Copying of documents may be arranged through the Regional Water Board by calling (510) 622-2300.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to **Farhad Azimzadeh at (510) 622-2310 or by e-mail at fazimzadeh@waterboards.ca.gov.**