

## ATTACHMENT A – DEFINITIONS

**Arithmetic Mean ( $\mu$ )**, also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean =  $\mu = \Sigma x / n$  where:  $\Sigma x$  is the sum of the measured ambient water concentrations, and  $n$  is the number of samples.

**Average Monthly Effluent Limitation (AMEL)**: the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

**Average Weekly Effluent Limitation (AWEL)**: the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

**Best Practicable Treatment or Control (BPTC)**: as defined in 40 CFR 131.12(a)(2) which requires the state to assure there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources that are cost-effective. BPTC is a requirement of State Water Resources Control Board Resolution 68-16---"Statement with Respect to Maintaining High Quality of Waters in California" (referred to as the "Antidegradation Policy"). BPTC is the treatment or control of a discharge necessary to assure that "(a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the state will be maintained. In general, an exceedance of a water quality objective in the Basin Plan constitutes "pollution."

**Bioaccumulative** pollutants are those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

**Carcinogenic** pollutants are substances that are known to cause cancer in living organisms.

**Coefficient of Variation (CV)** is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

**Daily Discharge**: Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the

arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

**Detected, but Not Quantified (DNQ)** are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

**Dilution Credit** is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

**Effluent Concentration Allowance (ECA)** is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in U.S. EPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

**Enclosed Bays** means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

**Estimated Chemical Concentration** is the estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

**Estuaries** means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

**Inland Surface Waters** are all surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

**Instantaneous Maximum Effluent Limitation:** the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

**Instantaneous Minimum Effluent Limitation:** the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

**Maximum Daily Effluent Limitation (MDEL)** means the highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

**Median** is the middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements ( $n$ ) is odd, then the median =  $X_{(n+1)/2}$ . If  $n$  is even, then the median =  $(X_{n/2} + X_{(n/2)+1})/2$  (i.e., the midpoint between the  $n/2$  and  $n/2+1$ ).

**Method Detection Limit (MDL)** is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

**Minimum Level (ML)** is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

**Mixing Zone** is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

**MPN:** Most Probable Number

**Not Detected (ND)** are those sample results less than the laboratory's MDL.

**Ocean Waters** are the territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

**Persistent** pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

**Pollutant Minimization Program (PMP)** means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

**Pollution Prevention** means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Regional Water Board.

**Reporting Level (RL)** is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

**Source of Drinking Water** is any water designated as municipal or domestic supply (MUN) in a Water Board Basin Plan.

**Standard Deviation ( $\sigma$ )** is a measure of variability that is calculated as follows:

$$\sigma = \left( \frac{\sum[(x - \mu)^2]}{(n - 1)} \right)^{0.5}$$

where:

x is the observed value;

$\mu$  is the arithmetic mean of the observed values; and

n is the number of samples.

**Toxicity Reduction Evaluation (TRE)** is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including

additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

**ATTACHMENT B – MAPS**

**B-1 – AREA MAP**

**B-2 – FACILITY MAP**

**B-3 – LAYOUT OF TREATMENT FACILITIES UNDER PHASE III PRELIMINARY PLAN**

**B-4 – TOPOGRAPHIC MAP MONITORING STATION RSW-001**

**B-5 – TOPOGRAPHIC MAP MONITORING STATION RSW-002**

**B-6 – GEORGE AIR FORCE BASE LOWER AQUIFER SOLVENT PLUME**

**ATTACHMENT C – FLOW SCHEMATICS**

**C-1 – FLOW DIAGRAM FOR 14.5 MGD AND 18 MGD UPGRADES**

**C-2 – PHASE III – A EXPANSION**

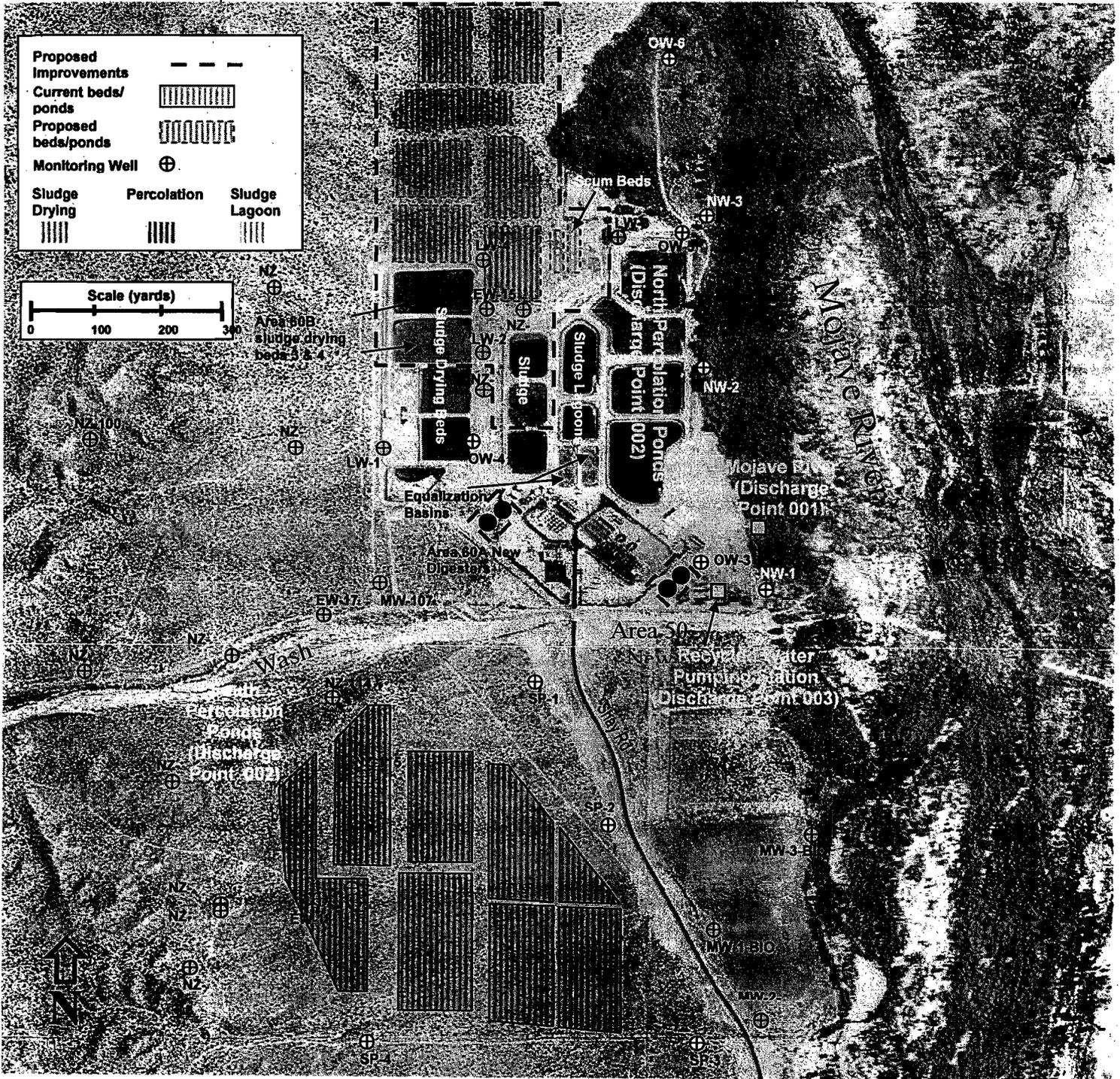
**C-3 – VVWRA PHASE III B EXPANSION, N/dN MBR PROCESS FLOW DIAGRAM**

**C-4 – VVWRA PHASE III – A COMPONENTS**

**C-5 – VVWRA PHASE III – B COMPONENTS**

**C-6 – VVWRA PHASE III – B COMPONENTS**

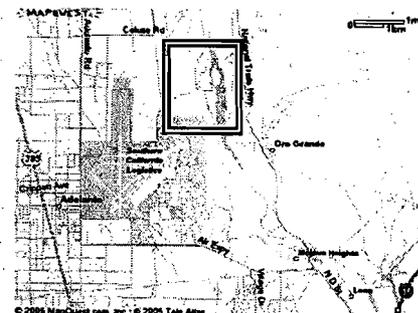
**ATTACHMENT B-1 - VVWRA Area Photo (1994)**



**Location in San Bernardino County**



**Location in Victorville**

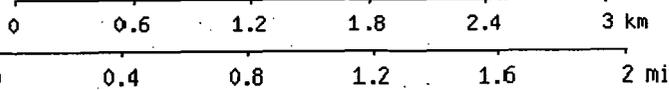
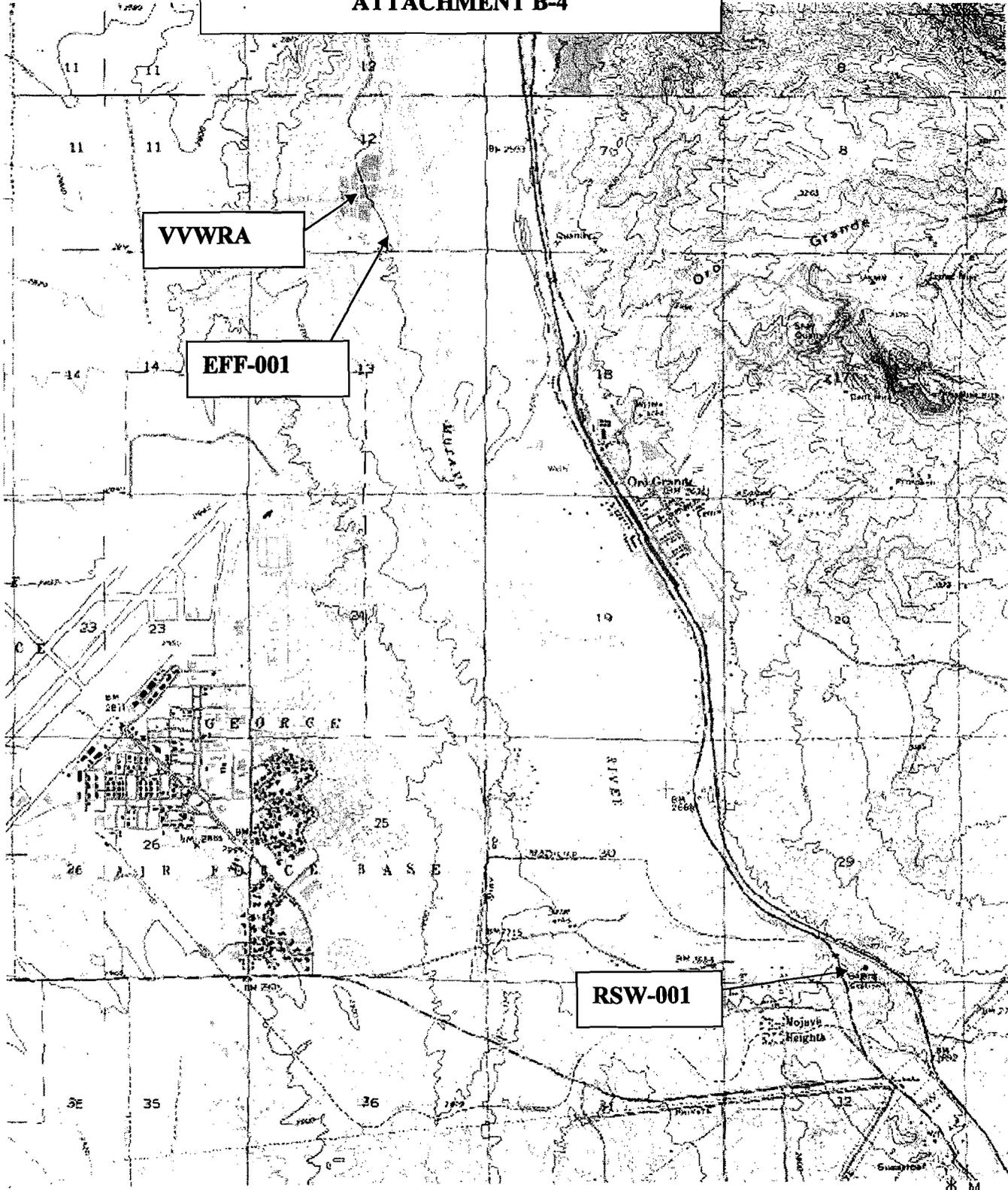




**ATTACHMENT B-3**

Attachment B-3 is replaced with Attachments C-4 through C-6.

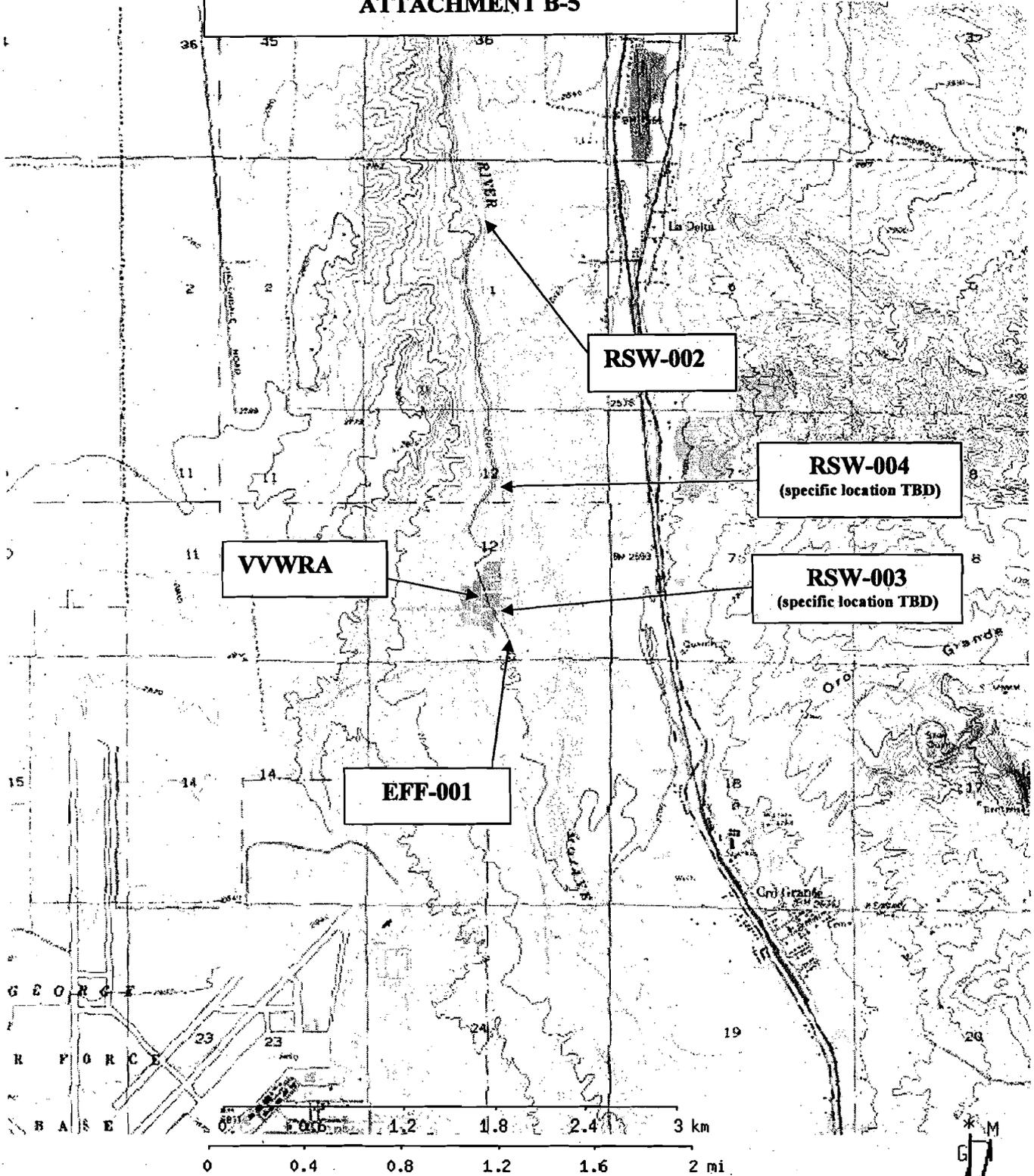
**ATTACHMENT B-4**



Map center is 34° 35.69'N, 117° 20.78'W (WGS84/NAD83)  
**VICTORVILLE** quadrangle  
Projection is UTM Zone 11 NAD83 Datum

M=13.481  
G=-0.197

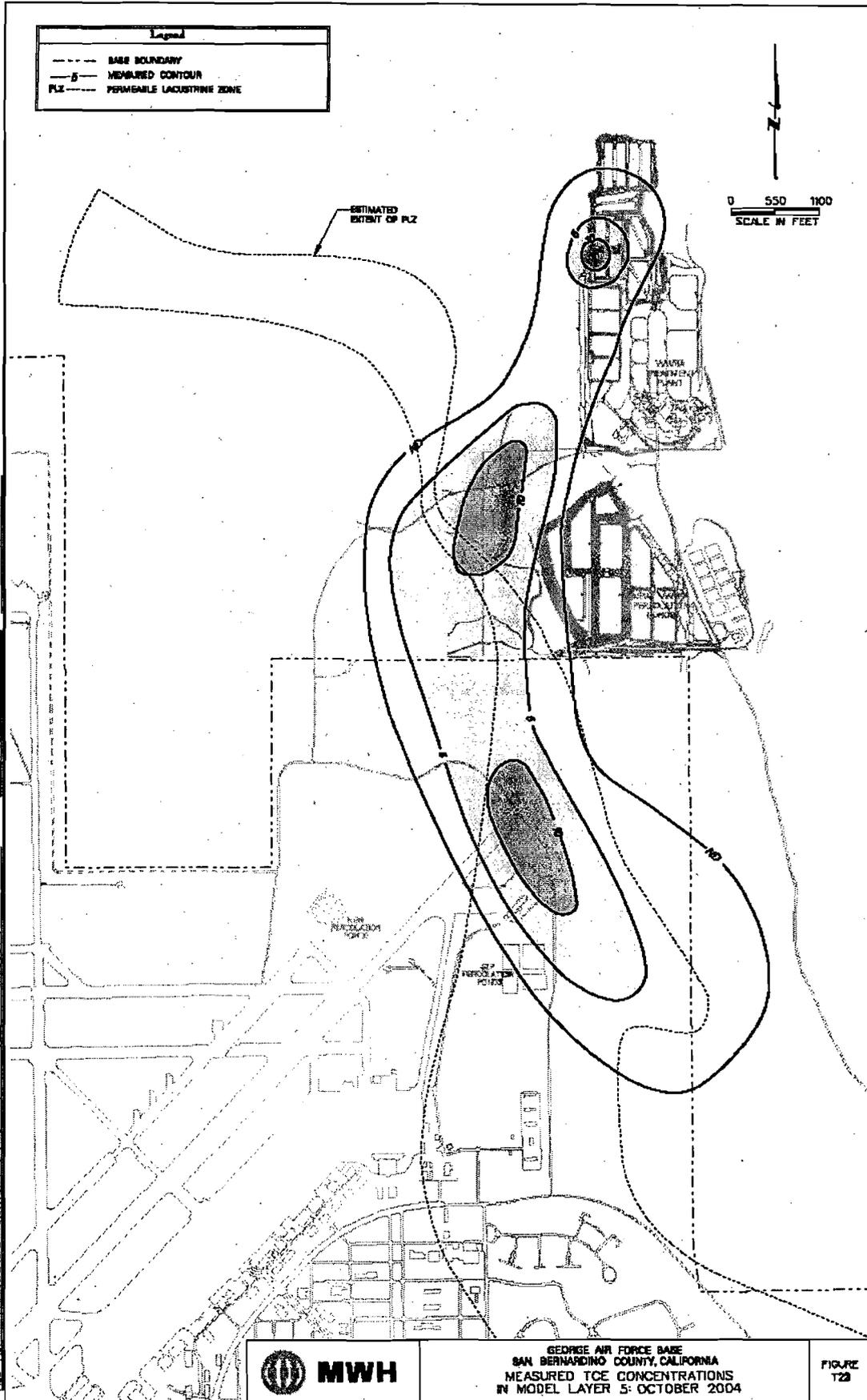
**ATTACHMENT B-5**



Map center is 34° 37.40'N, 117° 21.26'W (WGS84/NAD83)  
**HELENDALE** quadrangle  
Projection is UTM Zone 11 NAD83 Datum

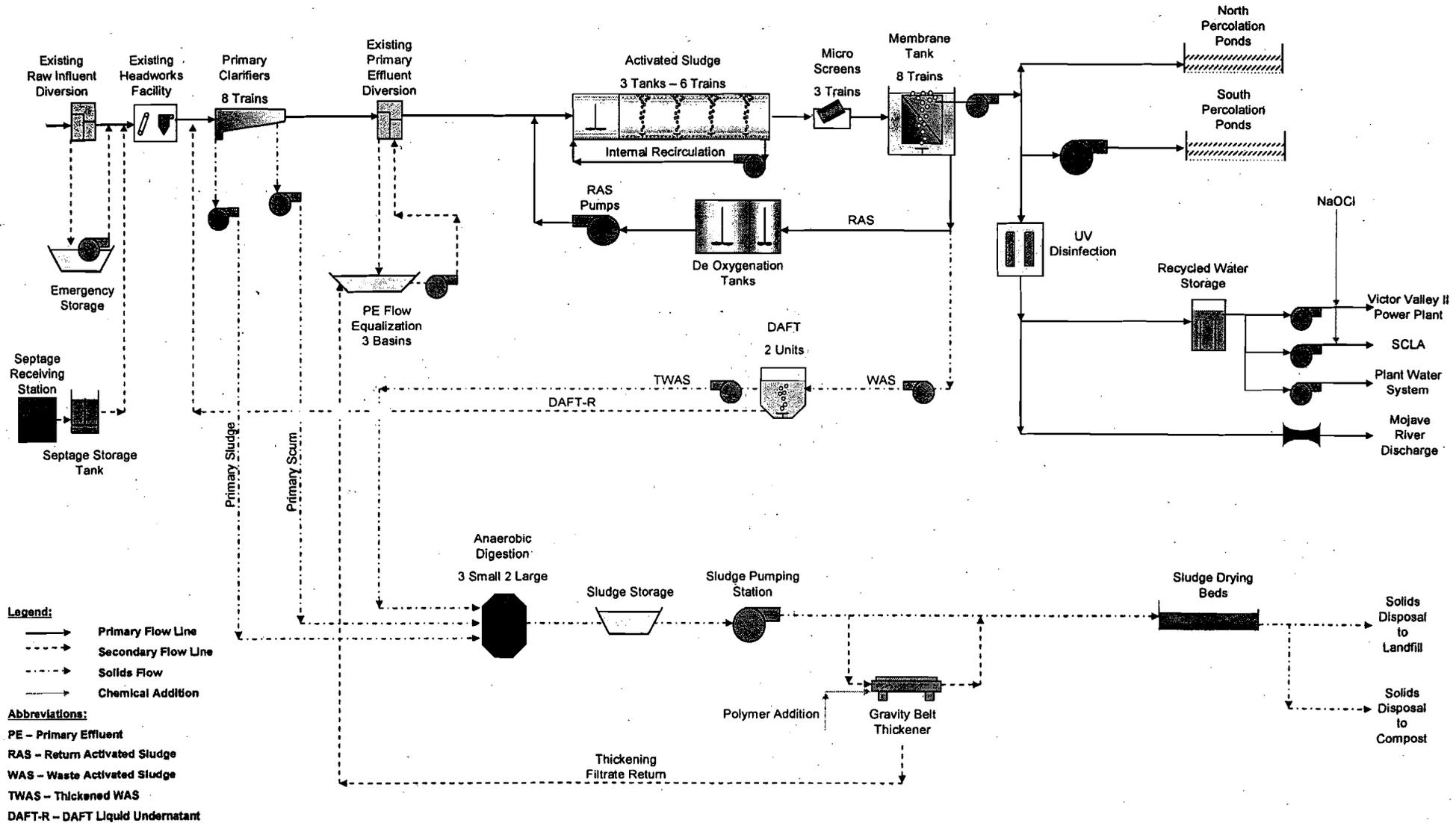
M=13.489  
G=-0.201

ATTACHMENT B-6



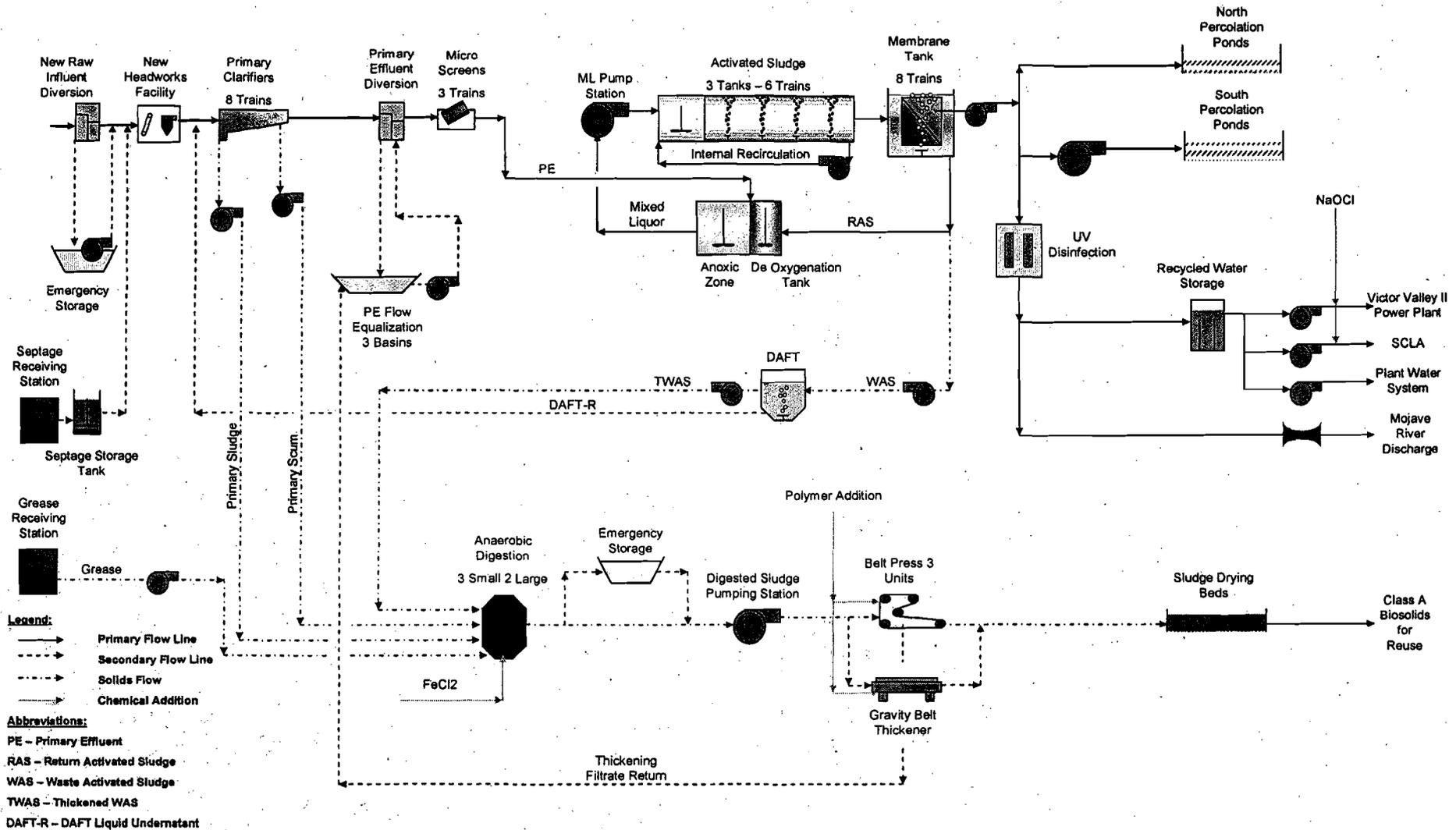


**C-2 – PHASE III-A EXPANSION**



**Figure 1.2 – VWRA Phase IIIA Process Schematic (18 MGD Projected Flow - Operation from Jan 2010 to April 2011)**

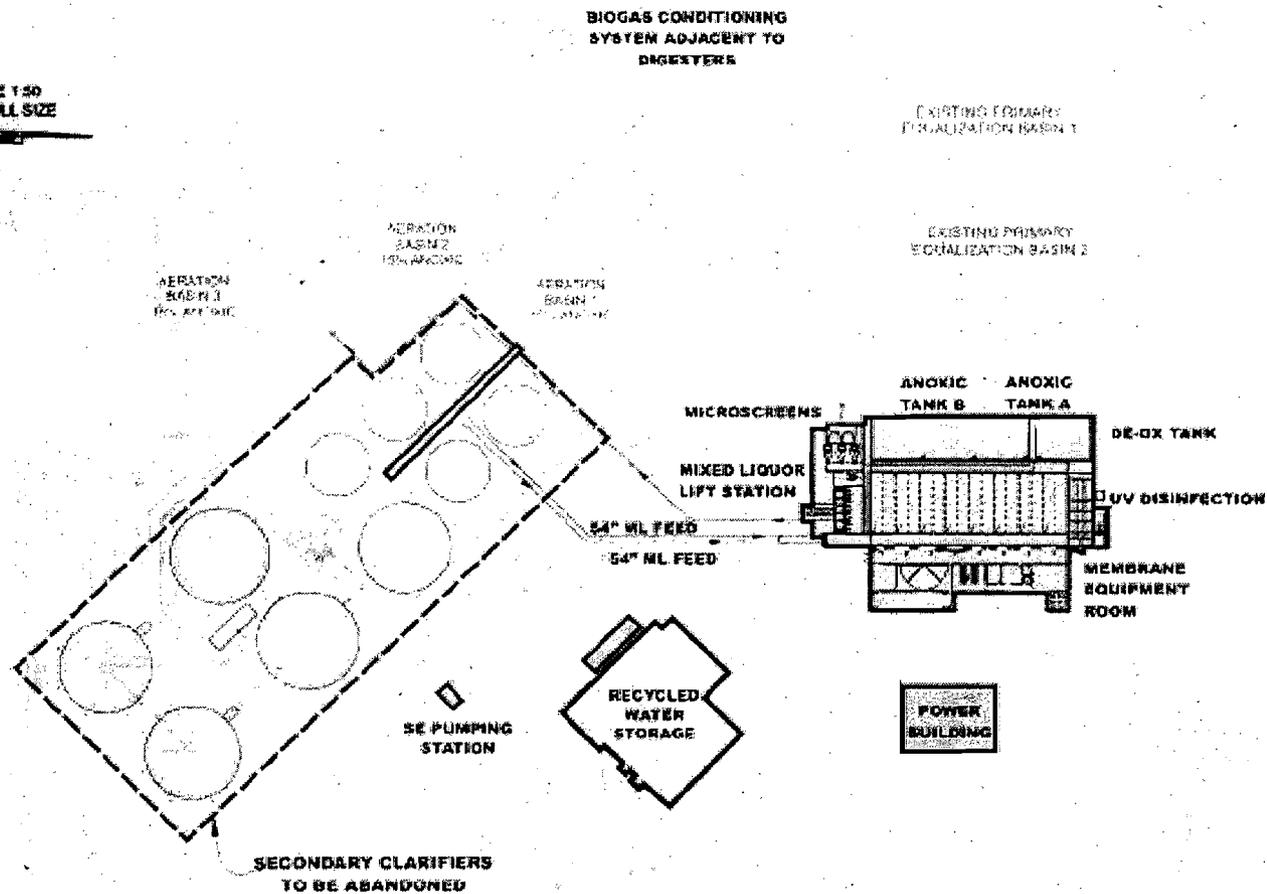
**C-3 – VVWRA PHASE III-B EXPANSION, N/dN MBR PROCESS FLOW DIAGRAM**



**Figure 1.3 – VVWRA Phase IIIB Process Schematic (22 MGD Projected Flow - Operation from May 2011)**

**C-4 – VVWRA PHASE III-A COMPONENTS**

SCALE 1/50  
 AT FULL SIZE



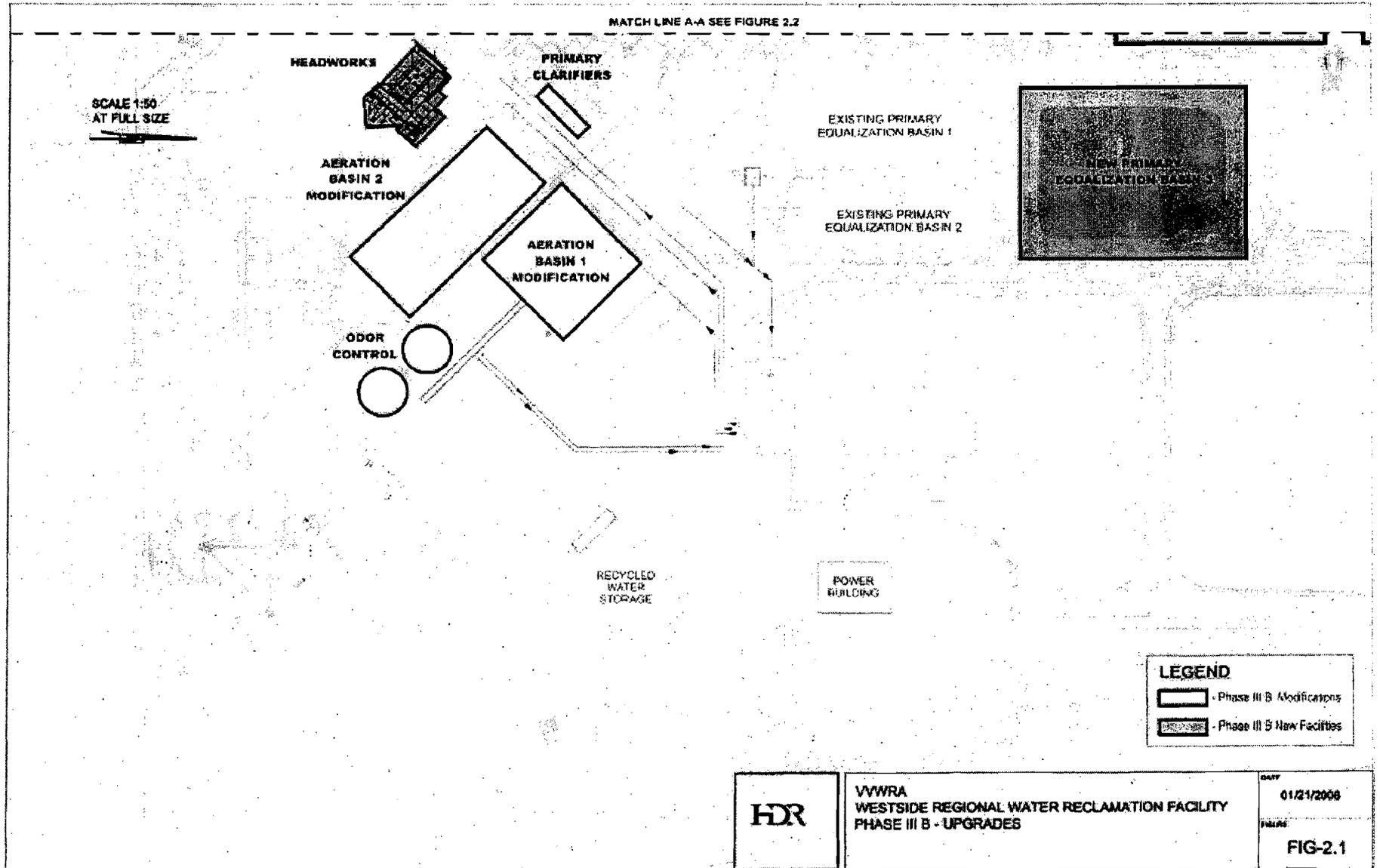
**LEGEND**

- Phase III A Modifications
- Phase III A New Facilities

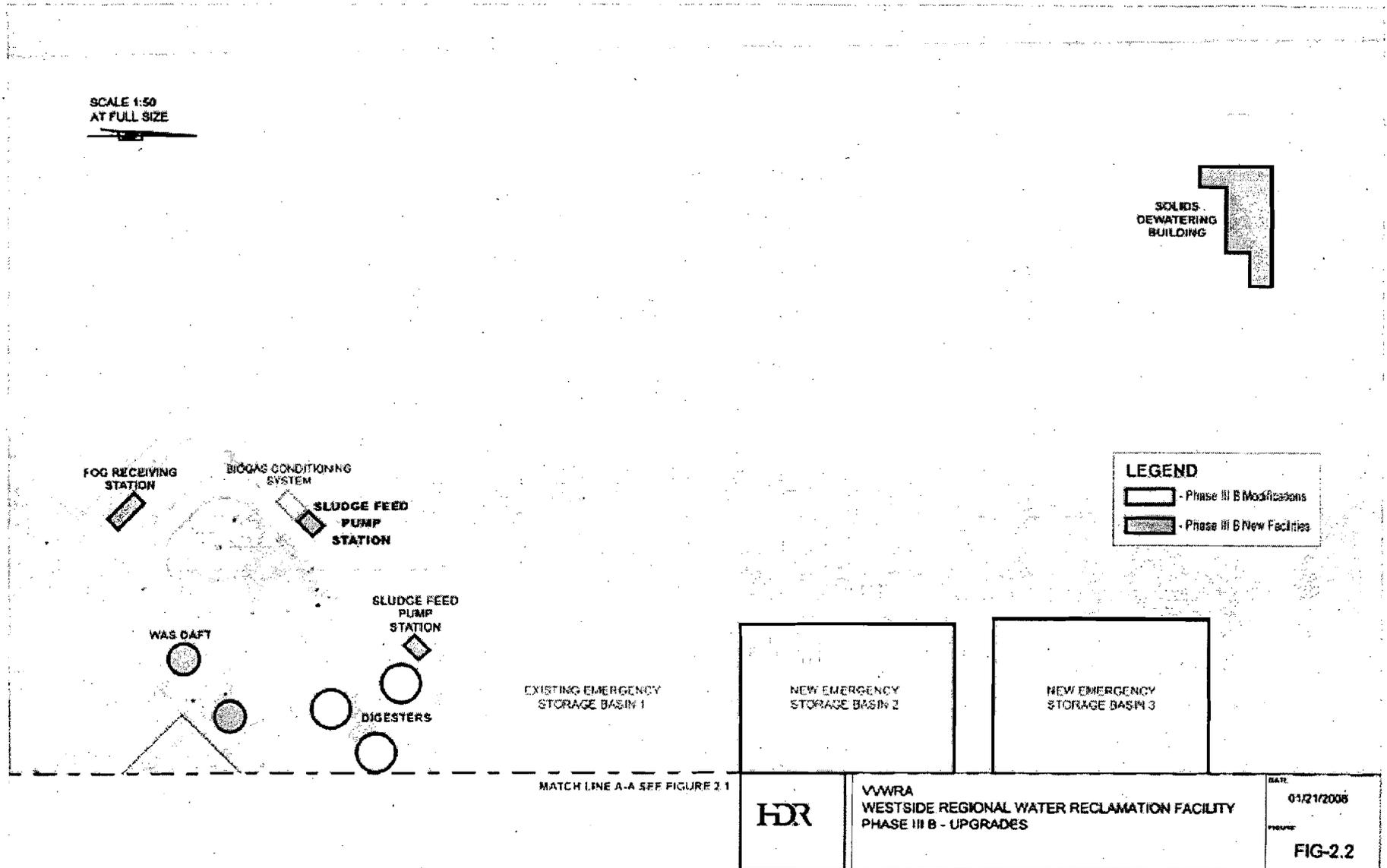
NOTE: New Administration Building will be constructed in the vicinity of the south percolation ponds

	VVWRA WESTSIDE REGIONAL WATER RECLAMATION FACILITY PHASE III A - UPGRADES	DATE 01/21/2008
		FIG-1

**C-5 – VVWRA PHASE III-B COMPONENTS**



**C-6 – VVWRA PHASE III-B COMPONENTS**



## **ATTACHMENT D –STANDARD PROVISIONS**

### **I. STANDARD PROVISIONS – PERMIT COMPLIANCE**

#### **A. Duty to Comply**

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 C.F.R. § 122.41(a).)
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

#### **B. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

#### **C. Duty to Mitigate**

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

#### **D. Proper Operation and Maintenance**

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

#### **E. Property Rights**

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

#### **F. Inspection and Entry**

The Discharger shall allow the Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 C.F.R. § 122.41(i); Water Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 C.F.R. § 122.41(i)(1));
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 C.F.R. § 122.41(i)(2));
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 C.F.R. § 122.41(i)(3)); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 C.F.R. § 122.41(i)(4).)

#### **G. Bypass**

1. Definitions
  - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)
  - b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)
2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)

3. Prohibition of bypass. Bypass is prohibited, and the Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
  - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));
  - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and
  - c. The Discharger submitted notice to the Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)
4. The Water Board may approve an anticipated bypass, after considering its adverse effects, if the Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)
5. Notice
  - a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)
  - b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

#### **H. Upset**

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):
  - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));
  - b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));
  - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and
  - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

## II. STANDARD PROVISIONS – PERMIT ACTION

### A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

### B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

### C. Transfers

This Order is not transferable to any person except after notice to the Water Board. The Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(l)(3); § 122.61.)

### III. STANDARD PROVISIONS – MONITORING

- A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)
- B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order. (40 C.F.R. § 122.41(j)(4); § 122.44(i)(1)(iv).)

### IV. STANDARD PROVISIONS – RECORDS

- A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

**B. Records of monitoring information shall include:**

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

**C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):**

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

## **V. STANDARD PROVISIONS – REPORTING**

### **A. Duty to Provide Information**

The Discharger shall furnish to the Water Board, State Water Board, or USEPA within a reasonable time, any information which the Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Water Code, § 13267.)

### **B. Signatory and Certification Requirements**

1. All applications, reports, or information submitted to the Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)
2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 C.F.R. § 122.22(a)(3).)
3. All reports required by this Order and other information requested by the Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and
  - c. The written authorization is submitted to the Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)
4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard

Provisions – Reporting V.B.3 above must be submitted to the Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.” (40 C.F.R. § 122.22(d).)

### **C. Monitoring Reports**

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) and in Section VI.C of this Order. (40 C.F.R. § 122.22(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

### **D. Compliance Schedules**

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

### **E. Twenty-Four Hour Reporting**

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)
2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):
  - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)
  - b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)
3. The Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

### **F. Planned Changes**

The Discharger shall give notice to the Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 C.F.R. § 122.41(l)(1)(ii).)
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R. § 122.41(l)(1)(iii).)

### **G. Anticipated Noncompliance**

The Discharger shall give advance notice to the Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 C.F.R. § 122.41(l)(2).)

### **H. Other Noncompliance**

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 C.F.R. § 122.41(l)(7).)

### **I. Other Information**

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

## **VI. STANDARD PROVISIONS – ENFORCEMENT**

- A.** The Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

## **VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS**

### **A. Publicly-Owned Treatment Works (POTWs)**

All POTWs shall provide adequate notice to the Water Board of the following (40 C.F.R. § 122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 C.F.R. § 122.42(b)(1)); and
2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order. (40 C.F.R. § 122.42(b)(2).)
3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 C.F.R. § 122.42(b)(3).)

## ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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## **ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)**

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

### **I. GENERAL MONITORING PROVISIONS**

- A.** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of this Water Board.
- B.** Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than  $\pm 10$  percent from true discharge rates throughout the range of expected discharge volumes.
- C.** Laboratories analyzing monitoring samples shall be certified by the Department of Health Services, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.
- D.** All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.
- E.** Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this Monitoring and Reporting Program.

**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 1. Monitoring Station Locations**

<b>Discharge Point Name</b>	<b>Monitoring Location Name</b>	<b>Monitoring Location Description (include Latitude and Longitude when available)</b>
--	INF-001 I	At the headworks, prior to the primary clarifiers. N 34° 37.031, W 117° 21.490
	INF-002	Up stream of the headworks and septage station. N 34° 36.710 W 117° 21.400 This location not currently in use.
	INF-003	New influent sample location to be determined after construction of proposed headworks
001	EFF-001	At the sample box prior to the Parshall Flume, 34° 37.019, W 117° 21.292
--	RSW-001	Upstream of Old National Trails Bridge on Rt. 66, near the USGS Gaging Station, N 34°34.367, W 117°19.220
--	RSW-002	1.75 miles downstream of confluence of effluent with the Mojave River at a point west of the intersection of Robertson Ranch Road and National Trails Highway), N 34° 38.447, W 117° 21.407
	RSW-003	Intermediate location between the point of discharge to the Mojave River and RSW-002 (exact location to be proposed by the Discharger and approved by the Water Board EO)
	RSW-004	Intermediate location between the point of discharge to the Mojave River and RSW-002 (exact location to be proposed by the Discharger and approved by the Water Board EO)
--	BIO-001	Report biosolids drying bed selected for annual monitoring

GPS coordinates collected with a Garmin Etrex Vista GPS hand held receiver. Coordinate system was WGS 84. NAD83

### III. INFLUENT MONITORING REQUIREMENTS

#### A. Monitoring Location INF-001

1. The Discharger shall monitor influent to the facility at INF-001 as follows:

**Table 2. Influent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	mg/L	24-hour composite	4/week <sup>1</sup>	40 CFR Part 136 Methods
Total Suspended Solids (TSS)	mg/L	24-hour composite	4/week <sup>2</sup>	40 CFR Part 136 Methods
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/month	40 CFR Part 136 Methods
Flow	Mgd	Measure	1/day	See General Monitoring Provisions (Section I)
Nitrate Nitrogen, Total (as N)	mg/L	Grab	1/month	40 CFR Part 136 Methods
Total Kjeldahl Nitrogen (as N)	mg/L	Grab	1/month	40 CFR Part 136 Methods
Conductivity	µmhos/cm	Continuous	1/day	40 CFR Part 136 Methods
pH	standard units	Continuous	1/day	40 CFR Part 136 Methods

<sup>1</sup> Conducted at approximately the same time as effluent monitoring for BOD (5-day @ 20°C).

<sup>2</sup> Conducted at approximately the same time as effluent monitoring for TSS.

### IV. EFFLUENT MONITORING REQUIREMENTS

#### A. Monitoring Location EFF-001

1. The Discharger shall monitor effluent discharged to the Mojave River at Monitoring Location EFF-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

**Table 3. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method <sup>1</sup> and (Minimum Level, units)
<b>Conventional Pollutants</b>				
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	mg/L	24-hour composite	4/week	40 CFR Part 136 Methods
Biochemical Oxygen Demand (BOD) (5-day @ 20°C), Percent Removal	% (percent)	Calculate	4/week	--
Fecal Coliform <sup>2</sup>	MPN/100 mL	Grab	5 evenly spaced in one 30-day period/yr	40 CFR Part 136 Methods
Oil and Grease	mg/L	Grab	1/quarter	40 CFR Part 136 Methods
pH	standard units	Continuous	1/day	40 CFR Part 136 Methods
Conductivity	µmhos/cm	Grab	1/day	40 CFR Part 136 Methods
Total Suspended Solids (TSS)	mg/L	24-hour composite	4/week	40 CFR Part 136 Methods
Total Suspended Solids (TSS), Percent Removal	% (percent)	Calculate	4/week	--
<b>Priority Pollutants</b>				
Copper, Total Recoverable	µg/L, lbs/day <sup>3</sup>	Grab	1/month	GFAA (ML= 5 µg/L);or ICP (ML = 10 µg/L);or ICPMS (ML= 0.5 µg/L);or SPGFAA (ML = 2 µg/L)
Zinc, Total Recoverable	µg/L, lbs/day <sup>3</sup>	Grab	1/month	FAA (ML= 20 µg/L);or ICP (ML = 20 µg/L);or ICPMS (ML= 1 µg/L);or SPGFAA (ML = 10 µg/L)
Cyanide, Total (as CN)	µg/L, lbs/day <sup>3</sup>	Grab	1/month	COLOR (ML = 5)
Chlorodibromomethane (Dibromochloromethane)	µg/L, lbs/day <sup>3</sup>	Grab	1/month	GC (ML = 0.5)
Dichlorobromomethane (Bromodichloromethane)	µg/L, lbs/day <sup>3</sup>	Grab	1/month	GC (ML = 0.5)
Bis(2-ethylhexyl)phthalate	µg/L, lbs/day <sup>3</sup>	Grab	1/month	GCMS (ML = 5)
Dibenzo(a,h)anthracene	µg/L, lbs/day <sup>3</sup>	Grab	1/month	LC (ML = 0.1)
Remaining CTR Priority Pollutants	µg/L	Grab	1/year	40 CFR Part 136 Methods
<b>Non-Conventional Pollutants</b>				
Ammonia Nitrogen, Total (as N)	mg/L, lbs/day <sup>3</sup>	Grab	2/month	40 CFR Part 136 Methods
Boron, Total Recoverable	mg/L, lbs/day <sup>3</sup>	Grab	1/quarter	40 CFR Part 136 Methods
Chloride	mg/L, lbs/day <sup>3</sup>	Grab	1/quarter	40 CFR Part 136 Methods
Chlorine, Total Residual	mg/L, lbs/day <sup>3</sup>	Grab	1/month	40 CFR Part 136 Methods
Dissolved Oxygen	mg/L	Grab	1/week	40 CFR Part 136 Methods
Fluoride, Total	mg/L, lbs/day <sup>3</sup>	Grab	1/quarter	40 CFR Part 136 Methods
Flow	mgd	Measure	1/day	See General Monitoring Provisions (Section I)
Hardness, Total (as CaCO <sub>3</sub> ) <sup>4</sup>	mg/L	Grab	1/quarter	40 CFR Part 136 Methods
Methylene Blue Active Substances (MBAS)	mg/L, lbs/day <sup>3</sup>	24-hour composite	1/month	Method approved by Executive Officer

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method <sup>1</sup> and (Minimum Level, units)
Nitrate Nitrogen, Total (as N)	mg/L, lbs/day <sup>3</sup>	Grab	2/month	40 CFR Part 136 Methods
Nitrite Nitrogen, Total (as N)	mg/L, lbs/day <sup>3</sup>	Grab	2/month	40 CFR Part 136 Methods
Sodium, Total	mg/L, lbs/day <sup>3</sup>	Grab	1/month	40 CFR Part 136 Methods
Sulfate, Total (as SO <sub>4</sub> )	mg/L, lbs/day <sup>3</sup>	Grab	1/quarter	40 CFR Part 136 Methods
Temperature	°C	Grab	1/week	40 CFR Part 136 Methods
Total Coliform <sup>2</sup>	MPN/100 mL	Grab	1/day	40 CFR Part 136 Methods
Total Dissolved Solids (TDS)	mg/L, lbs/day <sup>3</sup>	24-hour composite	1/month	40 CFR Part 136 Methods
Total Kjeldahl Nitrogen (as N)	mg/L, lbs/day <sup>3</sup>	Grab	2/month	40 CFR Part 136 Methods
Turbidity	NTU	Measure	1/day	40 CFR Part 136 Methods
Whole Effluent Toxicity, Acute	See Section V.A below			
Whole Effluent Toxicity, Chronic	See Section V.B below			

<sup>1</sup> Where more than one approved method is available, the Discharger shall ensure that, where possible, the method detection limit (MDL) and the minimum level (ML) are less than the most stringent effluent limitation. Where the most stringent effluent limitation is less than the MDL for all approved methods, the Discharger shall select the method with the lowest MDL. Where no 40 CFR Part 136 method is available, the Discharger shall use a method approved by the Executive Officer. For Priority Pollutants where test methods are specified in the table above, the methods are as follows:

- GC = Gas Chromatography
- CGMS = Gas Chromatography/Mass Spectroscopy
- LC = High Pressure Liquid Chromatography
- GFAA = Graphite Furnace Atomic Absorption
- SPGFAA = Stabilized Platform Graphite Furnace Atomic Absorption
- ICP = Inductively Coupled Plasma
- ICPMS = Inductively Coupled Plasma/Mass Spectroscopy
- COLOR = Colormetric

<sup>2</sup> Based on 2007 data for total coliform included with the January 22, 2008 memorandum from Gina Cloutier, VVWRA Laboratory Supervisor, included with the VVWRA letter dated January 23, 2008, the total coliform MPN measurements show that the fecal coliform effluent limitations were not exceeded for the entire year. Therefore, fecal coliform monitoring is reduced to a minimum five samples evenly spaced in any 30-day period per year. Water Board staff finds it is acceptable for VVWRA to use its in-house laboratory to analyze fecal coliform until Department of Health Services certification of this constituent is completed, expected for November 2008. Until such certification is obtained, VVWRA shall report the status of certification with each fecal coliform sample result submitted, until certification is obtained.

<sup>3</sup> The mass emission (in lbs/day) for the regulated pollutants in the discharge shall be calculated and reported using the limitation concentration and the actual flow rate measured at the time of discharge and the formula:

$$m = 8.34 C_i Q$$

where: m = mass discharge for a pollutant, lbs/day  
C<sub>i</sub> = concentration for a pollutant, mg/L  
Q = actual discharge flow rate, mgd

<sup>4</sup> Hardness shall be measured concurrently with total recoverable copper and total recoverable zinc.

## V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

### A. Acute WET Testing – Monitoring Location EFF-001

1. The presence of acute toxicity shall be determined as specified in USEPA's acute toxicity test methods in 40 CFR Part 136 for the *Pimephales promelas* survival test.
2. The discharger shall conduct acute WET tests on grab samples of undiluted effluent and an appropriate control water, as specified in the test method, a minimum of once per calendar quarter.
3. Where possible, the Discharger shall perform both acute WET testing and chemical-specific testing for parameters limited by this Order for which a grab sample is required using a split sample.
4. Acute WET results shall be reported in percent survival.
5. Concurrent testing with reference toxicants shall be conducted using the same test conditions as the effluent toxicity test (i.e., same test duration, etc.).
6. If either the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, the Discharger must re-sample and re-test within 14 days of receiving the results of the failed test.
7. The Discharger shall submit with the monthly report in which WET test results are due, a full report of acute WET testing that includes: (1) the toxicity test results; (2) the dates of sample collection and initiation of each toxicity test; and (3) the flow rate at the time of sample collection.
8. If survival is less than 90 percent in two consecutive quarterly samples, the discharger shall increase the frequency of acute WET testing to one time per month. When three consecutive monthly tests demonstrate a survival rate of greater than 90 percent of the test organisms, the Discharger may resume acute WET testing at a frequency of one time per calendar quarter.
9. If any of the accelerated (monthly) tests demonstrate a survival rate of less than 70 percent, the Discharger shall initiate a Toxicity Reduction Evaluation in accordance with the requirements of Section VI.C.2 of the Order

### B. Chronic WET Testing – Monitoring Location EFF-001

1. The presence of chronic toxicity shall be determined as specified in USEPA's short-term chronic toxicity test methods in 40 CFR Part 136 for *Ceriodaphnia dubia* survival and reproduction and *Pimephales promelas* larval survival and growth.
2. The discharger shall conduct chronic WET tests on undiluted (100% effluent) grab samples a minimum of once per calendar year and shall use an appropriate control water, as specified in the test method.

3. Where possible, the Discharger shall perform both chronic WET testing and chemical-specific testing for parameters limited by this Order for which a grab sample is required using a split sample.
4. For routine testing, Analysis of Variance (ANOVA) with  $\alpha = 0.05$  shall be used to determine whether differences between control and effluent data are significant.
5. If a chronic toxicity test indicates a statistically significant difference between a sample of 100% effluent and a control, the discharger shall initiate accelerated chronic WET testing at a frequency of one time per month.
6. Accelerated chronic WET results shall be reported in TUc where:

$$TUc = \frac{100}{NOEC}$$

NOEC = No Observed Effect Concentration: the highest concentration of effluent to which organisms are exposed in a chronic test that causes no observable adverse effect on the test organisms (e.g., the highest concentration of effluent to which the values for the observed response show no statistically significant difference from a control).

Accelerated chronic WET testing shall use a series of five dilutions and a control. The dilutions shall be 12.5, 25, 50, 75, and 100 percent effluent, along with the control (0 percent effluent). Concurrent testing with reference toxicants shall be conducted using the same test conditions as the effluent toxicity test (i.e., same test duration, etc.).

7. When three consecutive accelerated monthly tests demonstrate no chronic toxicity, which is defined as WET test results not exceeding 1.0 TUc, the Discharger may resume routine chronic WET testing at a frequency of one time per calendar year.
8. If either the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, the Discharger must re-sample and re-test within 14 days of receiving the results of the failed test.
9. The Discharger shall submit with the monthly report in which WET test results are due, a full report of chronic WET testing that includes: (1) the toxicity test results; (2) the dates of sample collection and initiation of each toxicity test; and (3) the flow rate at the time of sample collection.
10. If any of the accelerated (monthly) tests demonstrate chronic toxicity ( $TUc > 1.0$ ), the Discharger shall initiate a Toxicity Reduction Evaluation in accordance with the requirements of Section VI.C.2 of the Order.

**VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE (SEE ORDER NO. 6-99-58)**

**VII. RECLAMATION MONITORING REQUIREMENTS – NOT APPLICABLE (SEE ORDER NO. 6-99-58 AND ORDER NO. R6V-2003-28)**

**VIII. GROUND WATER MONITORING**

**Groundwater Wells**

When data are collected by the discharger from any groundwater monitoring well(s), the results shall be reported in the next self monitoring report submitted. Existing wells are:

OW-1  
NW-1  
NW-2  
NW-3  
OW-6  
SP-1  
SP-2  
SP-3  
SP-4  
LW-1  
LW-2  
LW-3  
LW-4

**IX. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER**

**A. Surface Water–Monitoring Locations RSW-001, RSW-002, RSW-003, RSW-004**

1. The Discharger shall monitor **surface water** at locations **RSW-001, RSW-002, RSW-003, and RSW-004** as follows:

**Table 4. Receiving Water Monitoring Requirements – Surface Water**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	standard units	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Boron, Total Recoverable	mg/L	Grab	1/year	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Chloride	mg/L	Grab	1/year	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Chlorine, Total Residual	mg/L	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Dissolved Oxygen	mg/L	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Fluoride, Total	mg/L	Grab	1/year	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Hardness, Total (CaCO <sub>3</sub> )	mg/L	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Haloacetic Acids, Total	µg/L	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Nitrate Nitrogen, Total (as N)	mg/L	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Nitrate Nitrogen, Total (as NO <sub>3</sub> )	mg/L	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Nitrite Nitrogen, Total (as N)	mg/L	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Nitrite Nitrogen, Total (as NO <sub>2</sub> )	mg/L	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Orthophosphate (as P)	mg/L	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Sulfate, Total (as SO <sub>4</sub> )	mg/L	Grab	1/year	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Temperature	°F	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Total Coliform	MPN/100 mL	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Total Kjeldahl Nitrogen (as N)	mg/L	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Trihalomethane, Total	µg/L	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer
Turbidity	NTU	Grab	1/quarter	40 CFR Part 136 Methods or Other Method Approved by Executive Officer

**B. Chronic Aquatic Toxicity Testing – Monitoring Location RSW-003 (RSW-002 until station RSW-003 established)**

1. A minimum frequency of once per calendar year, the Discharger shall determine the presence of chronic toxicity in the receiving water downstream of the discharge as specified in USEPA's short-term chronic toxicity test methods in 40 CFR Part 136 for *Ceriodaphnia dubia* survival and reproduction and *Pimephales promelas* larval survival and growth.
2. The discharger shall conduct chronic aquatic toxicity tests on grab samples of undiluted receiving water and a laboratory control sample.
3. Analysis of Variance (ANOVA) with  $\alpha = 0.05$  shall be used to determine whether differences between the laboratory control and receiving water data are significant.
4. The Discharger shall submit with the monthly report in which aquatic toxicity test results are due, a full report of chronic aquatic toxicity testing that includes: (1) the toxicity test results and (2) the dates of sample collection and initiation of each toxicity test.

**X. OTHER MONITORING REQUIREMENTS**

**A. Flow Monitoring – Monitoring Locations INF-001 and EFF-001**

The following shall be recorded in a permanent log book and submitted monthly:

1. The volume, in million gallons, of wastewater flow to the treatment Facility for each day.
2. The total volume, in million gallons, of wastewater flow to the treatment Facility for each month.
3. The average flow rate, in million gallons per day, of wastewater to and from the treatment Facility calculated for each month.
4. The maximum instantaneous flow rate, in million gallons per day, of wastewater to the treatment Facility that occurs each day.
5. The volume, in million gallons, of wastewater flow to the Mojave River each day.
6. The total volume, in million gallons, of wastewater flow to the Mojave River for each month.
7. The average flow rate, in million gallons per day, of wastewater to the Mojave River calculated for each month.
8. The volume, in gallons, of septic tank pumpings (septage) discharged to the treatment Facility each day. Septage volume recording shall begin immediately after the first dump station becomes operational.
9. The total volume, in million gallons, of septic tank pumpings (septage) discharged to the treatment Facility each month.

### **B. Fecal Coliform – Monitoring Location EFF-001**

The log mean MPN of fecal coliform organisms shall be determined from the last thirty days. This 30-day running log mean value shall be computed and recorded for each day of the monthly reporting period along with the results from each individual sample.

### **C. Total Coliform – Monitoring Location EFF-001**

The median MPN of coliform organisms shall be determined for the last seven days for which coliform results have been obtained. This seven day running median value shall be computed and recorded for each day of the monthly reporting period along with the results from each individual sample.

### **D. Turbidity – Monitoring Location EFF-001**

The average turbidity values, the percent of the time that the turbidity exceeds 5 NTU, and the number of times that the turbidity exceeds 10 NTU shall be computed and recorded each day, using the turbidity data provided by the continuous recording turbidimeter.

## **XI. REPORTING REQUIREMENTS**

### **A. General Monitoring and Reporting Requirements**

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. By **June 4, 2008**, the Discharger shall revise the Sampling and Analysis Plan (SAP) that was originally dated January 7, 2000 and submit the revision to the Water Board. The revised SAP shall reflect the requirements of this Order for sampling for all media (effluent, surface water, and groundwater leachate and biosolids). At a minimum, the SAP shall include: sampling locations, sampling schedule, sampling procedures, sample handling procedures, analytical methods, MDLs, MLs, QA/QC protocols, groundwater monitoring well purge protocols, sampling criteria methods, maps showing all monitoring points, and procedures for annual assessment of the physical integrity of each groundwater monitoring well. The Discharger shall periodically update the SAP as needed to keep it current.

### **B. Self Monitoring Reports (SMRs)**

1. At any time during the term of this permit, the State or Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through X. The Discharger shall submit monthly SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR. Monthly reports shall be due on the 1<sup>st</sup> day of each month. Information for a calendar month is due at the beginning of the second month following the month in which sampling occurred (e.g., 30 days after the end of the calendar month, information for that month is due). All annual reports shall be due on **March 1** following each calendar year.
  
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

**Table 5. Monitoring Periods and Reporting Schedule**

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	April 5, 2008	All	Submit with monthly SMR
Daily	April 5, 2008	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
Weekly or 4/week	April 6, 2008	Sunday through Saturday	Submit with monthly SMR
Monthly	May 1, 2008	1 <sup>st</sup> day of calendar month through last day of calendar month	1 <sup>st</sup> day of 2 <sup>nd</sup> month following monitoring period
Quarterly	July 1, 2008	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	Submit with SMR on 1 <sup>st</sup> day of 2 <sup>nd</sup> month following monitoring period
Semiannually	July 1, 2008	January 1 through June 30 July 1 through December 31	Submit with SMR on 1 <sup>st</sup> day of 2 <sup>nd</sup> month following monitoring period
Annually	January 1, 2009	January 1 through December 31	March 1 of each year
1 / 4 years	January 1, 2009	Permit effective date through four years following permit effective date	Submit with SMR no less than 180 days prior to permit expiration date

4. Reporting Protocols. The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in Part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy ( $\pm$  a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
  - d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.
5. The Discharger shall submit SMRs in accordance with the following requirements:
- a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to illustrate clearly whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
  - b. The Discharger 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.
  - c. SMRs must be submitted to the Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

California Regional Water Quality Control Board  
Lahontan Region  
14440 Civic Drive, Suite 200  
Victorville, CA 92392

### C. Discharge Monitoring Reports (DMRs)

1. As described in Section XI.B.1 above, at any time during the term of this permit, the State or Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Reports (DMRs). Until such notification is given, the Discharger shall submit 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.
4. A copy of the DMR shall also be submitted to the Water Board's Victorville office.

### D. Other Reports

#### 1. Pretreatment Reporting

- a. The Discharger shall submit, by **March 1** of each year, an Annual Pretreatment Report to USEPA Region 9, the SWRCB and the Water Board, describing the Discharger's pretreatment activities over the previous calendar year.
- b. The Annual Report shall contain, but not be limited to, the following information:
  - 1) A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the POTW's influent and effluent for those pollutants USEPA has identified under Section 307(a) of the Act, which are known or suspected to be discharged by industrial users. The Discharger is not required to sample and analyze for asbestos until USEPA promulgates an applicable analytical technique under 40 CFR 136. Biosolids shall be sampled during the same 24-hour period. Wastewater and biosolids sampling and analysis shall be performed a minimum of quarterly. The Discharger shall also provided any influent, effluent, or biosolids monitoring data for non-priority pollutants that the Discharger believes may be causing or contributing to interference, pass through, or adversely impacting biosolids quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto.
  - 2) A discussion of upset, interference, or pass through incidents, if any, at the POTW that the Discharger knows or suspects were caused by industrial

- users of the POTW system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken, and, if known, the name and address of the industrial user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent pass through, interference, or noncompliance with biosolids disposal requirements.
- 3) The cumulative number of industrial users that the Discharger has notified regarding Baseline Monitoring Reports and the cumulative number of industrial user responses.
  - 4) An updated list of the Discharger's industrial users, including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The Discharger shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to the Federal Categorical Standards by specifying which set(s) of standards are applicable.
  - 5) The list shall indicate which categorical industries, or specific pollutants from each industry, are subject to local limitations that are more stringent than the Federal Categorical Standards.
- c. The Discharger shall also list in the Annual Report the non-categorical industrial users that are subject only to local discharge limitations. The Discharger shall characterize the compliance status of each industrial user by employing the following descriptions:
- 1) In compliance with Baseline Monitoring Reporting requirements (where applicable);
  - 2) Consistently achieving compliance;
  - 3) Inconsistently achieving compliance;
  - 4) Significantly violated applicable pretreatment requirements as defined by 40 CFR 403.8(f);
  - 5) On a compliance schedule to achieve compliance (include the date final compliance is required);
  - 6) Not achieving compliance and not on a compliance schedule; and
  - 7) The Discharger does not know the industrial user's compliance status.
- d. A summary of the inspection and sampling activities conducted by the Discharger during the past year to gather information and data regarding industrial users. The summary shall include:
- 1) The names and addresses of the industrial users subject to surveillance by the Discharger and an explanation of whether they were inspected, sampled, or both, and the frequency of these activities for each user; and
  - 2) The conclusion or results from inspection or sampling of each industrial user.
- e. A summary of the compliance and enforcement activities during the past year. The summary shall include the names and addresses of the industrial users affected by the following actions:

- 1) Warning letters or notices of violation regarding the industrial users' apparent non-compliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the apparent violation concerned the Federal Categorical Standards or local discharge limitations;
  - 2) Administrative Orders regarding the industrial users' compliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned the Federal Categorical Standards or local discharge limitations.
  - 3) Civil actions regarding the industrial users' non-compliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned the Federal Categorical Standards or local discharge limitations;
  - 4) Criminal actions regarding the industrial users' non-compliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned the Federal Categorical Standards or local discharge limitations;
  - 5) Assessment of monetary penalties. For each industrial user, identify the amount of penalties;
  - 6) Restrict the flow to the POTW; or
  - 7) Disconnect from the POTW.
- f. A description of any significant changes in operating the pretreatment program that differ from the information in the Discharger's POTW Pretreatment Program including, but not limited to, changes concerning: the program's administrative structure; local industrial discharge limitations; monitoring program or monitoring frequencies; legal authority or enforcement policy; funding mechanisms; resource requirements; or staffing levels.
- g. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.
- h. A summary of public participation activities that involve and inform the public.
- i. A description of any changes in biosolids disposal methods and a discussion of any concerns not described elsewhere in the report.

Quarterly reports describing the compliance status of any industrial user characterized by the descriptions in Items f (i-vii) above shall be submitted to the USEPA Region 9; the State Water Board and the Water Board. Duplicate signed copies of the above annual and quarterly reports shall be submitted to the Regional Administrator, SWRCB and the Water Board at the following addresses:

Regional Administrator  
USEPA Region 9  
Attention: W-5-1  
75 Hawthorne Street  
San Francisco, CA 94105

SWRCB  
 Operations Branch  
 Division of Water Quality  
 P.O. Box 100  
 Sacramento, CA 95801

California Water Board  
 Lahontan Region  
 14440 Civic Drive, Suite 200  
 Victorville, CA 92392

**2. Biosolids Monitoring Requirements – Monitoring Location BIO-001**

- a. The following shall be recorded monthly and reported with monthly monitoring reports:
- 1) Total quantity of biosolids generated during the monitoring period.
  - 2) Date and quantity of biosolids removed off-site, location of use, recipient (including name and address) and biosolids disposal method (including crops grown if appropriate) for all biosolids removed off-site.
  - 3) Cumulative total quantity of biosolids currently on-site including the quantity of biosolids added during the monitoring period.
- b. A single biosolids drying bed shall be selected and reported and a representative sample of sewage biosolids shall be collected annually and analyzed as follows:

**Table 6. Biosolids Monitoring Requirements**

Constituent	Units	Sample Type	Minimum Sampling Frequency
Arsenic	mg/kg	Grab	1/Year
Cadmium	mg/kg	Grab	1/Year
Copper	mg/kg	Grab	1/Year
Lead	mg/kg	Grab	1/Year
Mercury	mg/kg	Grab	1/Year
Molybdenum	mg/kg	Grab	1/Year
Nickel	mg/kg	Grab	1/Year
Selenium	mg/kg	Grab	1/Year
Zinc	mg/kg	Grab	1/Year
Fecal Coliform	MPN/g	Grab	1/Year
Kjeldahl Nitrogen, Total (as N)	mg/kg	Grab	1/Year
Nitrate Nitrogen, Total (as N)	mg/kg	Grab	1/Year
Nitrite Nitrogen, Total (as N)	mg/kg	Grab	1/Year
Ammonia Nitrogen, Total (as N)	mg/kg	Grab	1/Year
Phosphate, Total (as P)	mg/kg	Grab	1/Year

The Discharger shall also sample annually for the parameters listed in California Code of Regulations, title 22, section 66261.24, subdivision (a)(2)(A), Table II and California Code of Regulations, title 22, section 66261.24, subdivision

(a)(2)(B), Table III. The Discharger shall submit a proposed protocol for sample collection to the Executive Officer for review prior to sample collection and analysis. The Discharger shall make a determination whether the analyses indicate that the biosolids shall be considered a hazardous material.

Results of all annual sampling will be submitted with the results of all other annual monitoring requirements by **March 1** of each year.

### **3. Operation and Maintenance**

A brief summary of any operational problems and maintenance activities shall be submitted to the Water Board with each monthly Self Monitoring Report. This summary shall discuss:

- a. Any modifications or additions to the wastewater conveyance system, treatment Facilities, or disposal facilities.
- b. Any major maintenance conducted on the wastewater conveyance system, treatment Facilities, or disposal facilities.
- c. Any major problems occurring in the wastewater conveyance system, treatment Facilities, or disposal facilities.
- d. The calibration of any wastewater flow measuring devices.

### **4. Offsite Disposal**

The Discharger shall include in each monthly monitoring report the volume and type of all waste hauled off site for disposal. The person or company doing the hauling and the legal point of disposal shall also be recorded.

### **5. Annual Facility Monitoring Report**

By **March 1** of each year, the Discharger shall submit an Annual Report that summarizes in tabular and graphical format the monitoring data collected for the previous year. This report shall include plant influent and effluent data and time plots of related ground and surface receiving water data. Included shall be the names and grades of all certified operators. Include also a summary of the compliance status and implement the schedule any non-compliance situation.

### **6. Sewage and Hazardous Substance Spill Reporting**

In addition to any other reporting requirements, pursuant to Water Code Section 13271, the discharger shall immediately notify the Governor's Office of Emergency Services (OES) of any sewage or hazardous substance discharged into or onto State waters. Pursuant to Water Code Section 13267, the Discharger must also notify the Water Board's Victorville office of any spills reported to OES within 24 hours by telephone. Water Code Section 13271(a)(3) states that OES will immediately notify the Regional Board (RWQCB), local health officer and administrator of environmental health. Immediately means: (1) as soon as there is knowledge of the discharge, (2) as soon as notification is possible, and (3) when notification can be provided without substantially impeding cleanup or other emergency measures. For the purposes of

Water Code Section 13271, Title 23, section 2250, California Code of Regulations defines a reportable quantity of sewage to be any unauthorized discharge of 1,000 gallons or more. The reportable quantities for hazardous substances are those developed by the U.S. Environmental Protection Agency contained in 40 CFR Part 302.