

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

In the matter of:)	
)	Order R7-2011-0045
City of Westmorland)	
Wastewater Treatment Plant)	SETTLEMENT AGREEMENT AND
Complaint R7-2011-0025 for)	STIPULATION FOR ENTRY OF
Administrative Civil Liability)	ADMINISTRATIVE CIVIL LIABILITY ORDER
)	
)	

Section I: Introduction

This Settlement Agreement and Stipulation for Entry of Administrative Civil Liability Order ("Stipulation") is entered into by and between the Assistant Executive Officer of the Regional Water Quality Control Board, Colorado River Basin Region ("Regional Water Board"), on behalf of the Regional Water Board Prosecution Team ("Prosecution Team") and the City of Westmorland (the "Discharger") (collectively "Parties") and is presented to the Regional Water Board for adoption as an Order, by settlement, pursuant to Government Code section 11415.60.

Section II: Recitals

1. The Discharger owns and operates a wastewater treatment plant (WWTP) located at 5305 Martin Road, Westmorland, CA 92281 and provides sewerage service to the City of Westmorland, a small community as defined by CWC Section 13385(k)(2). The WWTP has a treatment capacity of 0.50 million gallons per day (MGD). Wastewater from the WWTP is discharged to the Trifolium Drain No. 6, a tributary to the New River, and ultimately to the Salton Sea. The Trifolium Drain No. 6, the New River, and the Salton Sea are waters of the United States.
2. The Discharger's WWTP is subject to the requirements set forth in Waste Discharge Requirements (WDRs) Board Order R7-2007-0034 (National Pollutant Discharge Elimination System Permit (NPDES) No. CA0105007).
3. On February 24, 2011, the Prosecution Team issued Administrative Civil Liability (ACL) Complaint R7-2011-0025 to the Discharger. The Complaint alleges that the Discharger violated WDRs Order R7-2007-0034 on thirty-eight (38) occasions from July 2, 2008 through January 26, 2009, when it used an uncertified laboratory to perform E. coli and Enterococci analysis. The Complaint also alleges that the Discharger exceeded the effluent limit for total recoverable copper set forth in WDRs Order R7-2007-0034 on four occasions, of which two are subject to mandatory minimum penalties. The Complaint recommends imposing an administrative civil liability totaling \$23,756.25 for alleged violations of WDRs Order R7-2007-0034. That amount includes \$6,000 in mandatory minimum penalties and staff costs of \$6,000.
4. The Parties have engaged in settlement negotiations and agree to settle the matter without administrative or civil litigation and by presenting this Stipulation to the Regional Water Board for adoption as an Order pursuant to Government Code section 11415.60. To resolve by consent and without further administrative proceedings all alleged violations of California Water

Code ("CWC") section 13385 set forth in the Complaint, the Parties have agreed to the imposition of \$23,756.25 in administrative civil liability against the Discharger. The Discharger shall pay a total of \$8,878.13 to the State Water Pollution Cleanup and Abatement Account. The remaining \$14,878.12 in liability shall be suspended upon completion of the three Enhanced Compliance Actions ("ECAs") as set forth in this Stipulation and Order. The Discharger shall expend, at a minimum, \$14,878.12 to complete the ECAs in accordance with the terms of this Stipulation and Order.

5. The Prosecution Team believes that the resolution of the alleged violations is fair and reasonable and fulfills its enforcement objectives, that no further action is warranted concerning the specific violations alleged in the Complaint except as provided in this Stipulation and that this Stipulation is in the best interest of the public.

Section III: Stipulations

The Parties stipulate to the following:

6. **Jurisdiction:** The Parties agree that the Regional Water Board has subject matter jurisdiction over the matters alleged in this action and personal jurisdiction over the Parties to this Stipulation.

7. **Administrative Civil Liability:** The Discharger shall pay a total of \$8,878.13 in stipulated administrative civil liability by check made payable to the State Water Pollution Cleanup and Abatement Account" no later than 30 days following the Regional Water Board executing this Order. The check shall reference the Order number listed on page one of this Stipulation. The original signed check shall be sent to the Party Contact for the Regional Water Board set forth in Paragraph 18, with a copy to: Ann Carroll, Office of Enforcement, P.O. Box 100, Sacramento, CA 95812-0100. Further, the remaining \$14,878.12 in stipulated administrative civil liability shall be suspended ("Suspended Liability") pending completion of three Enhanced Compliance Actions (ECAs), as set forth herein and in Attachment "A" attached hereto and incorporated by this reference.

8. **ECA Descriptions:** The Parties agree that this resolution includes the performance of three ECAs as described below:

- a. **Waste Activated Sludge Flow Meter Project:** The goal of this project is to install a 4-inch flow meter on the Waste Activated Sludge pipeline to enable the Discharger's staff to properly calculate and balance the bio mass and control the wasting rates. Further, the project will enable the Discharger's staff to achieve steady state conditions within the secondary treatment process by wasting a calculated volume of sludge into the solids handling process and optimizing the Mean Cell Residence Time (MRCT) and Food to Microorganism (FM) rations in the oxidation ditch. Detailed plans concerning how the Discharger will implement the Waste Activated Sludge Flow Meter Project, as well as an implementation schedule, milestone dates, and budget are provided in Attachment "A", which is incorporated herein by this reference.
- b. **Return Activated Sludge Flow Meter Project:** The goal of this project is to install an upgraded meter on the 6-inch Return Activated Sludge pipelines to enable the Discharger's staff to balance the secondary treatment system's solids inventory with accurate flow rates when using MCRT and/or FM ratio measurements and will to

calculate chlorine dosages to reduce foam and filaments. This project shall enhance operations at the WWTP and improve the water quality of effluent discharged. Detailed plans concerning how the Discharger will implement the Waste Activated Sludge Flow Meter Project, as well as an implementation schedule, milestone dates, and budget are provided in Attachment "A".

- c. Chlorination of the Return Activated Sludge Project: The goal of this project is to purchase and install a chlorination system. Chlorination of the return activated sludge will reduce filaments within mix liquor concentration of the secondary treatment system and will enhance and produce a high quality effluent discharge. Detailed plans concerning how the Discharger will implement the Waste Activated Sludge Flow Meter Project, as well as an implementation schedule, milestone dates, and budget are provided in Attachment "A".

9. **ECAs Completion Dates:** All three ECAs shall be concluded by May 31, 2012 ("ECAs Completion Date"). A final report certifying the completion of all three ECAs shall be provided to the Regional Water Board and the State Water Resources Control Board's Division of Financial Assistance by June 15, 2012, as described in Paragraph 13.

10. **Cost of ECAs:** The cost estimate to implement the ECAs is approximately \$16,665 (Attachment "A"). The amount of liability to be suspended upon completion of all three ECAs is \$14,878.12. No additional liability above and beyond the \$14,878.12 shall be suspended for costs incurred to complete the three ECAs in accordance with this Stipulation. The Discharger represents that it will guarantee implementation of all three ECAs identified in this Stipulation by remaining liable for the Suspended Liability until all three ECAs are completed and accepted by the Regional Water Board in accordance with the terms of this Stipulation.

11. **Failure to Complete the ECAs:** If the ECAs as described in this Stipulation and Order are determined to be infeasible, or if the Discharger fails to complete all three ECAs by May 31 2012, as required by this Stipulation and Order, the Regional Water Board shall issue a Notice of Violation (NOV). If other circumstances beyond the reasonable control of the Discharger prevent completion of any of the ECAs by the ECAs Completion Date, Regional Water Board staff may extend the ECAs Completion Date by up to one (1) year, to May 31, 2013. The Discharger must send its request for an extension in writing with necessary justification to the Regional Water Board Contact identified in Paragraph 18 no later than April 30, 2012. As a consequence, the Discharger shall be liable to pay the State Water Pollution Cleanup and Abatement Account the Suspended Liability within 30 days of receipt of the NOV.

12. **ECAs Oversight:** The Discharger will oversee implementation of the ECAs. Additional oversight of the ECAs will be provided by the Regional Water Board. The Discharger is solely responsible for paying all reasonable oversight costs incurred by the Regional Water Board to oversee the ECAs. The ECAs oversight costs are in addition to the total administrative civil liability imposed against the Discharger and are not credited toward the Discharger's obligation to implement and complete the ECAs. Reasonable oversight tasks to be performed by the Regional Water Board include but are not limited to, updating CIWQS, reviewing and evaluating progress, reviewing the final report, verifying completion of the ECAs

13. **Final Report Certifying Completion of ECAs:** On or before the applicable ECAs Completion Date, the Discharger shall submit a final report ("Certification of Completion") to the Regional Water Board Contact identified in Paragraph 18 and the State Water Resources

Control Board's Division of Financial Assistance. The Certification of Completion shall include following:

- a. A cover letter that clearly identifies the Discharger, the Discharger's WDID number, reference to Administrative Civil Liability Order Number R7-2011-0045, and includes the following statement: "I declare under the penalty of perjury under the laws of the State of California that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations."
- b. Certification that the ECAs have been completed in accordance with the terms of this Stipulation. Such documentation may include photographs, invoices, receipts, certifications, and other materials reasonably necessary for the Regional Water Board to evaluate the completion of the ECAs and the costs incurred by the Discharger.
- c. Certification documenting the expenditures by the Discharger during the completion period for the ECAs. Expenditures may include external payments to outside vendors or contractors performing the ECAs. In making such certification, the official may rely upon normal company project tracking systems that capture employee time expenditures and external payments to outside vendors such as environmental and information technology contractors or consultants. The certification need not address any costs incurred by the Regional Water Board for oversight. The Discharger shall provide any additional information requested by the Regional Water Board staff that is reasonably necessary to verify ECAs expenditures.

14. **Third Party Financial Audit of ECAs.** At the written request of Regional Water Board staff, the Discharger, at its sole cost, shall submit a report prepared by an independent third party(ies) acceptable to the Regional Water Board staff providing such party's(ies') professional opinion that the Discharger has expended money in the amounts claimed by the Discharger directly on the ECAs. The written request shall specify the reasons why the audit is being requested. The audit report shall be provided to Regional Water Board staff within three (3) months of notice from Regional Water Board staff to the Discharger of the need for an independent third party audit. The audit need not address any costs incurred by the Regional Water Board for oversight.

15. **Failure to Expend all Suspended Administrative Civil Liability Funds on the Approved ECAs:** In the event that the Discharger is not able to demonstrate to the reasonable satisfaction of the Regional Water Board staff that the entire Suspended Liability has been spent to complete the components of the ECAs for which the Discharger is financially responsible, the Discharger shall pay the difference between the Suspended Liability and the amount the Discharger can demonstrate was actually spent on the ECAs, as an administrative civil liability. The Discharger shall pay the additional administrative liability within 30 days of its receipt of notice of the Regional Water Board's determination that the Discharger has failed to demonstrate that the entire Suspended Liability has been spent to complete the ECAs in accordance with this Stipulation and Order.

16. **Regional Water Board Acceptance of Completed ECAs:** Upon the Discharger's satisfaction of its obligations under this Stipulation and completion of the ECAs and any audit requested by the Regional Water Board, Regional Water Board staff shall send the Discharger a letter recognizing satisfactory completion of its obligations under this Stipulation and Order. This letter shall terminate any further obligations of the Discharger under this Stipulation and Order and result in the permanent stay of the Suspended Liability.

17. **Compliance with Applicable Laws:** The Discharger understands that payment of administrative civil liability in accordance with the terms of this Order or compliance with the terms of this Order is not a substitute for compliance with applicable laws, and that continuing violations of the type alleged in the Complaint may subject it to further enforcement, including additional administrative civil liability.

18. **Party Contacts for Communications related to Stipulation/Order:**

For the Regional Water Board:

Doug Wylie,
Senior Water Resource Control Engineer
Colorado River Basin
Regional Water Quality Control Board
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260
dwyllie@waterboards.ca.gov
(760) 346-6585

For the Discharger:

Henry Graham, Mayor
City of Westmorland
355 S. Center Street
P.O. Box 699
Westmorland, CA 92281
westcityusa@roadrunner.com
(760) 344-3411

19. **Attorney's Fees and Costs:** Each Party shall bear all attorneys' fees and costs arising from the Party's own counsel in connection with the matters set forth herein.

20. **Matters Addressed by Stipulation:** Upon the Regional Water Board's adoption of the Order incorporating the terms of this Stipulation, this Stipulation represents a final and binding resolution and settlement of the violations alleged in the Complaint ("Covered Matters"). The provisions of this Paragraph are expressly conditioned on the full payment of the administrative civil liability by the deadline specified in Paragraph 7 and the Discharger's full satisfaction of the CP obligations described herein.

21. **Public Notice:** Federal law mandates that any settlement will not become final until after 30-day public notice and comment period expires, (40 CFR 123.27). On February 24, 2011 the Assistant Executive Officer issued the Complaint and provided notice to the public that the violations alleged in the Complaint could be resolved by settlement, including, but not limited to performance of an ECA(s). Thus, the terms of this Stipulation and Order have been properly noticed and the required public comment period expired March 25, 2011 without comment.

22. **Addressing Objections Raised During Public Comment Period:** The Parties agree that the procedure contemplated for adopting the Order by the Regional Water Board and review of this Stipulation by the public is lawful and adequate. In the event procedural objections are raised prior to the Order becoming effective, the Parties agree to meet and confer concerning any such objections, and may agree to revise or adjust the procedure as necessary or advisable under the circumstances.

23. **Interpretation:** This Stipulation and Order shall be construed as if the Parties prepared it jointly. Any uncertainty or ambiguity shall not be interpreted against any one Party.

24. **Modification:** This Stipulation and Order shall not be modified by any of the Parties by oral representation made before or after its execution. All modifications must be in writing, signed by all Parties, and approved by the Regional Water Board or its delegee.

25. **If Order Does Not Take Effect:** In the event that this Order does not take effect because it is not approved by the Regional Water Board or is vacated in whole or in part by the State Water Resources Control Board or a court, the Parties acknowledge that they expect to proceed to a contested evidentiary hearing before the Regional Water Board to determine whether to assess administrative civil liabilities for the underlying alleged violations, unless the Parties agree otherwise. The Parties agree that all oral and written statements and agreements made during the course of settlement discussions will not be admissible as evidence in the hearing. The Parties agree to waive any and all objections based on settlement communications in this matter, including, but not limited to:

- a. Objections related to prejudice or bias of any of the Regional Water Board members or their advisors and any other objections that are premised in whole or in part on the fact that the Regional Water Board members or their advisors were exposed to some of the material facts and the Parties' settlement positions as a consequence of reviewing the Stipulation and/or the Order, and therefore may have formed impressions or conclusions prior to any contested evidentiary hearing on the Complaint in this matter; or
- b. Laches or delay or other equitable defenses based on the time period for administrative or judicial review to the extent this period has been extended by these settlement proceedings.

26. **Waiver of Hearing:** The Discharger has been informed of the rights provided by CWC section 13323, subdivision (b), and hereby waives its right to a hearing before the Regional Water Board prior to the adoption of the Order.

27. **Waiver of Right to Petition:** The Discharger hereby waives its right to petition the Regional Water Board's adoption of the Order for review by the State Water Resources Control Board, and further waives its rights, if any, to appeal the same to a California Superior Court and/or any California appellate level court.

28. **Regional Water Board is Not Liable:** Neither the Regional Water Board members nor the Regional or State Water Board staff, attorneys, or representatives shall be liable for any injury or damage to persons or property resulting from acts or omissions by the Discharger its directors, officers, employees, agents, representatives or contractors in carrying out activities pursuant to this Stipulation and/or Order nor shall the Regional Water Board, its members or staff be held as parties to or guarantors of any contract entered into by the Discharger, its directors, officers, employees, agents, representatives, or contractors in carrying out activities pursuant to this Stipulation and Order.

29. **Covenant Not to Sue:** The Discharger covenants not to sue or pursue any administrative or civil claim(s) against any State Agency or the State of California, their officers, Board Members, employees, representatives, agents, or attorneys arising out of or relating to any Covered Matter.

30. **Necessity for Written Approvals:** All approvals and decisions of the Regional Water Board under the terms of this Order shall be communicated to the Discharger in writing. No oral advice, guidance, suggestions, or comments by employees or officials of the Regional Water Board regarding submissions or notices shall be construed to relieve the Discharger of its obligation to obtain any final written approval required by this Order.

31. **Authority to Bind:** Each person executing this Stipulation in a representative capacity represents and warrants that he or she is authorized to execute this Stipulation on behalf of and to bind the entity on whose behalf he or she executes the Stipulation.

32. **Counterpart Signatures:** This Stipulation may be executed and delivered in any number of counterparts, each of which when executed and delivered shall be deemed to be an original, but such counterparts shall together constitute one document. Further, this Stipulation may be executed by facsimile or electronic signature, and any such facsimile or electronic signature by any Party hereto shall be deemed to be an original signature and shall be binding on such Party to the same extent as if such facsimile or electronic signature were an original signature.

33. **Effective Date:** This Stipulation is effective and binding on the Parties upon the entry of this Order by the Regional Water Board, which incorporates the terms of this Stipulation.

IT IS SO STIPULATED.

**California Regional Water Quality Control Board,
Colorado River Basin Prosecution Team**

Date: 8/22/11

By: Jose Angel

Jose Angel,
Assistant Executive Officer

City of Westmorland

Date: 8-5-11

By: Henry Graham

Henry Graham
Mayor

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RECEIVED

AUG 12 2011

REGION 7

Order of the Regional Water Board:

IT IS HEREBY ORDERED:

34. This Order incorporates the foregoing Stipulation, set forth in Paragraphs 1 through 33 above, by this reference, as if set forth fully herein.

35. In accepting this Stipulation, the Regional Water Board has considered, where applicable, each of the factors prescribed in CWC sections 13385(e). The Regional Water Board's consideration of these factors is based upon information obtained by the Prosecution Team in investigating the allegations in the Complaint, or otherwise provided to the Regional Water Board.

36. This is an action to enforce the laws and regulations administered by the Regional Water Board. The Regional Water Board finds that issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, sections 21000 et seq.), in accordance with section 15321(a)(2), Title 14, of the California Code of Regulations.

37. The Executive Officer is authorized to refer this matter directly to the Attorney General for enforcement if the Dischargers fail to perform any of its obligations under the Order.

I, Robert Perdue, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin on September 15, 2011.



Robert Perdue
Executive Officer

Date: 9/15/11

Attachment "A"



CITY OF WESTMORLAND
355 South Center Street • Post Office Box 699
Westmorland, California 92281
Tel: (760) 344-3411 • Fax (760) 344-5307
westcityusa@roadrunner.com
www.cityofwestmorland.net/index

RECEIVED
JUL 13 2011
RECEIVED

July 8, 2011

Mr. Doug Wylie
California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, California 92260

Dear Mr. Wylie:

Re: Administrative Civil Liability Compliant No. R7 - 2011- 0025

The City of Westmorland has received Administrative Civil Liability Compliant dated February 24, 2011, and after meeting with you and your staff to further discuss the ACLC on March 11, 2011, the city at this time is proposing the following three Enhanced Compliance Projects. These projects are listed below.

- 1.0 Purchase and installation a 4 inch flow meter on the Waste Activated Sludge Line and Influent pipe line to accurately monitor flow rates and MCRT calculations.
 - 1.1 Total cost of units
 - 1.1.1 \$2,984.00 WAS Meter
 - 1.1.2 \$3,892.00 Influent Meter
 - 1.2 Installation approximately \$1,165.00
- 2.0 Purchase and installation of a upgraded meter on the 8 inch Return Activated Sludge pipe line
 - 2.1 Total cost of unit is \$3,367.00
 - 2.2 Installation \$700.00
- 3.0 Chlorination of the Return Activated Sludge
 - 3.1 Total cost of unit is \$1500.00
 - 3.2 Installation \$500.00

The total anticipated equipment cost of these three Enhanced Projects is approximately \$11,823.00 with the installation cost at approximately \$2,365.00. Total cost of purchase and installation \$13,888.00 20% Administrative costs \$2777.00, which brings the total cost to \$16,665.00.

The final liability amount on your compliant is at \$17,756.25, which fifty percent could be used towards a ECP, which is \$8,878.125. The accrued Mandatory Minimum Penalty of 8,000.00 dollars will also be covered in the expenditures of these EC Projects.

Once your office approves these proposed projects and their schedules the city will pay the assessed penalty of \$8,878.12 and send a check to your office in Palm Desert.

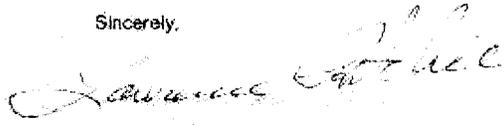
City of Westmorland WWTP
Administrative Civil Liability Order R7-2011-0045

Completion Schedule

Advertise and receive all vendor quotes	September / October 2011
Purchase equipment	October / November 2011
Installation	February / March 2012
Operational	April / May 2012

Attached are the quotations of the meters from RSIS Inc. If you require additional information please do not hesitate to call me at (760) 344-3411.

Sincerely,



Lawrence Ritchie
Westmorland Mayor Pro Tem

Cc: City council
City attorney
Ramiro Barajas
Ruben Mireles

"Gateway City to the Imperial Valley"

City of Westmorland

2011 Enhance Supplemental Environmental Projects
Waste Activated Sludge flow meter
Return Activated Sludge flow meter
Chlorination of Return Activated Sludge

City Description

The City of Westmorland is a small rural community located in close proximity to the Salton Sea in Imperial County, California. The agricultural community of approximately 2000 in population is primarily residential with some commercial establishments typical of small cities. There are no significant industrial users and the sewage can be classified as predominantly residential in nature.

Operations and Managerial Responsibility

Operational Personnel's Responsibilities

- (a) The treatment plant operator will maintain efficient plant operations and maintenance.
- (b) The treatment plant operator shall maintain the system's operational, maintenance and administrative records.
- (c) Motivate personnel to achieve maximum efficiency of operation.
- (d) As necessary, perform sampling and analysis of plant's discharge monitoring program.
- (e) Analyze operational data to determine changes and improvements required to accomplish the goals more effectively.

Management's Responsibilities

- (a) Management will develop staffing requirements, job descriptions, organization charts and personnel assignments.
- (b) Management will budget for sufficient funds to operate and maintain the treatment facility.
- (c) Maintain regulatory compliance records.
- (d) Maintain good public relations with the community.
- (e) Establish a cost-conscious environment with emphasis on reductions in material and energy expenditures.

Wastewater Treatment Requirements **Design Parameters**

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Population	2,006
Influent	
Average Daily Sewage Flow – gpd	500,000
Average Sewage BOD Concentration-mg/L	146
Average Sewage TSS Concentration-mg/l.	106
Effluent requirements	
BOD	30/45 mg/l
TSS	30/45 mg/l
E-coli	126 MPN
Fecal	200 MPN
Enteriocoeci	35 MPN

The plant design is intended to satisfy the discharge permit that requires a monthly average of the daily average effluent BOD's and total suspended solids not to exceed a concentration of 30 mg/L, respectively. The total dissolved solids 30-day mean limit is 4,000 mg/L. Limits for Escherichia coliform of 126 MPN/100mL nor exceed 400 MPN/100ml on any sample in a 30-day period. The new chlorination unit is designed to produce water of approximately 23 MPN/100 ml. The Regional Water Quality Control Board has set out the discharge limitations in the renewal of the plant's discharge permit.

Description of Wastewater Treatment Plant

The City of Westmorland has discontinued the acceptance of seepage from various pumping and hauling companies in the immediate area. All Sewage created within the City is treated at the City's treatment plant.

The treatment plant consists of a pump station, seepage-receiving station, grit removal unit, oxidation ditch, two clarifiers, chlorination/dechlorination system, control building, and sludge drying beds.

The treatment plant contains the following systems:

- Pretreatment
- Secondary Treatment
- Disinfection
- Sludge Handling

Pretreatment

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Pretreatment includes the units found at the beginning of the plant where the influent flow enters the plant. In the pretreatment section you can find information on the Seepage Receiving Station Grinder, Hydraulic Sewage Grinder, Raw Sewage Pumps, and Grit Removal. The city discontinued receiving seepage in December 2011. The structures at the head works of the treatment plant are in use.

Secondary Treatment

Secondary treatment involves the primary processes found in the middle of the plant. This includes the suspended biological processes that are used to convert the raw sewage into treated sewage. In the secondary treatment the city has one Oxidation Ditch and two final Clarifiers. Waste activated sludge and Return activated sludge are pumped from a central pump station located between the final clarifiers. Waste activated sludge is pumped drying beds. The Returned activated sludge is pumped to the influent side of the oxidation ditch and co mingled with the mix liquor.

Disinfection

Gas disinfection is performed just prior to discharge through the treatment plant outfall. The Disinfection system consists of a chlorination/dechlorination basin.

Sludge Handling

Wasted sludge from the plant is pumped and dewatered in the sludge handling process. Sludge handling incorporates the drying beds and the sludge pumps. The sludge is sun dried, tested and hauled off site to a landfill.

Enhanced Supplemental Environmental Projects

1.0 Waste Activated Sludge Flow Meter

The purchase and installation WAS Meter

The wastes activated sludge that is pumped from the secondary system to the solids handling process area is not measured and approximate flow estimates are used to calculate Mean Cell Residence Time (MCRT). MCRT is utilized as an operating parameter that controls the quantity of bio mass within the secondary treatment process.

The treatment facility does not have a WAS flow meter

Goals

The installation of a flow meter on the waste activated sludge piping system and the influent pipe line will enable operations staff to properly calculate and balance the bio mass and control the wasting rates. This will enable to achieve steady state conditions with in the secondary treatment process by wasting a calculated gallon age of sludge into the solids handling process and optimizing the Mean Cell Residence Time (MCRT) and Food to Microorganism (FM) ratios in the oxidation ditch. The MCRT is a calculated operation parameter used to keep the bio mass within optimum range. The WAS flow rate is needed for this calculation.

2.0 Return Activated Sludge Flow Meter

"Gateway City to the Imperial Valley"

The purchase and installation of RAS Meter

The Return Activated sludge is pumped from the final clarifiers back in to the influent side oxidation ditch to maintain a certain level of mix liquor suspended solids (MLSS) within the oxidation ditch. The MLSS is the actual biomass used to control the secondary system process. The amount of RAS returned is crucial to determine the correct amount of biomass to properly operate the treatment facility.

Goals

The installation of a flow meter on the RAS pipe line will give the operations staff the ability to balance the secondary system's solids inventory with accurate flow rates when using MCRT or FM ratios measurements, thereby enhancing the operations and improving water quality being discharged into the receiving stream. The Mix Liquor Suspended Solids (MLSS) inventory requires to be balanced within a pre determined range to effectively produce a high quality effluent discharge. This range is properly achieved with accurate flow readings of the Return Activated Sludge.

Flow rates will also allow operations staff will be able to calculate chlorine dosages to reduce foam and filaments

The treatment facility does not have a RAS flow meter

3.0 Chlorination of the Return Activated Sludge (RAS)

Purchase and installation of a chlorination system

Chlorination of the RAS's MLSS will reduce foaming in the secondary treatment system

The ability to chlorinate the RAS will keep the treatment facility in compliance with it regulatory requirements by reducing and eliminating filamentous bacteria. Staff has encountered problems with filaments in the activated sludge bio mass, this bacteria keeps the bio mass from settling properly and clarifying, producing a good quality effluent. The chlorination of the RAS oxidizes and reduces the filaments from the secondary treatment process.

Goals

Chlorination of the bio mass will control foaming within the oxidation ditch. Foaming occurs during winter months and westerly winds blow the foam from the treatment facility unto other surrounding areas.

The chlorination of the RAS sludge will reduce filaments within mix liquor concentration of the secondary system. This will enhance and produce a high quality effluent discharge keeping the treatment facility in compliance with it's NPDES permit.

Summary / Goals

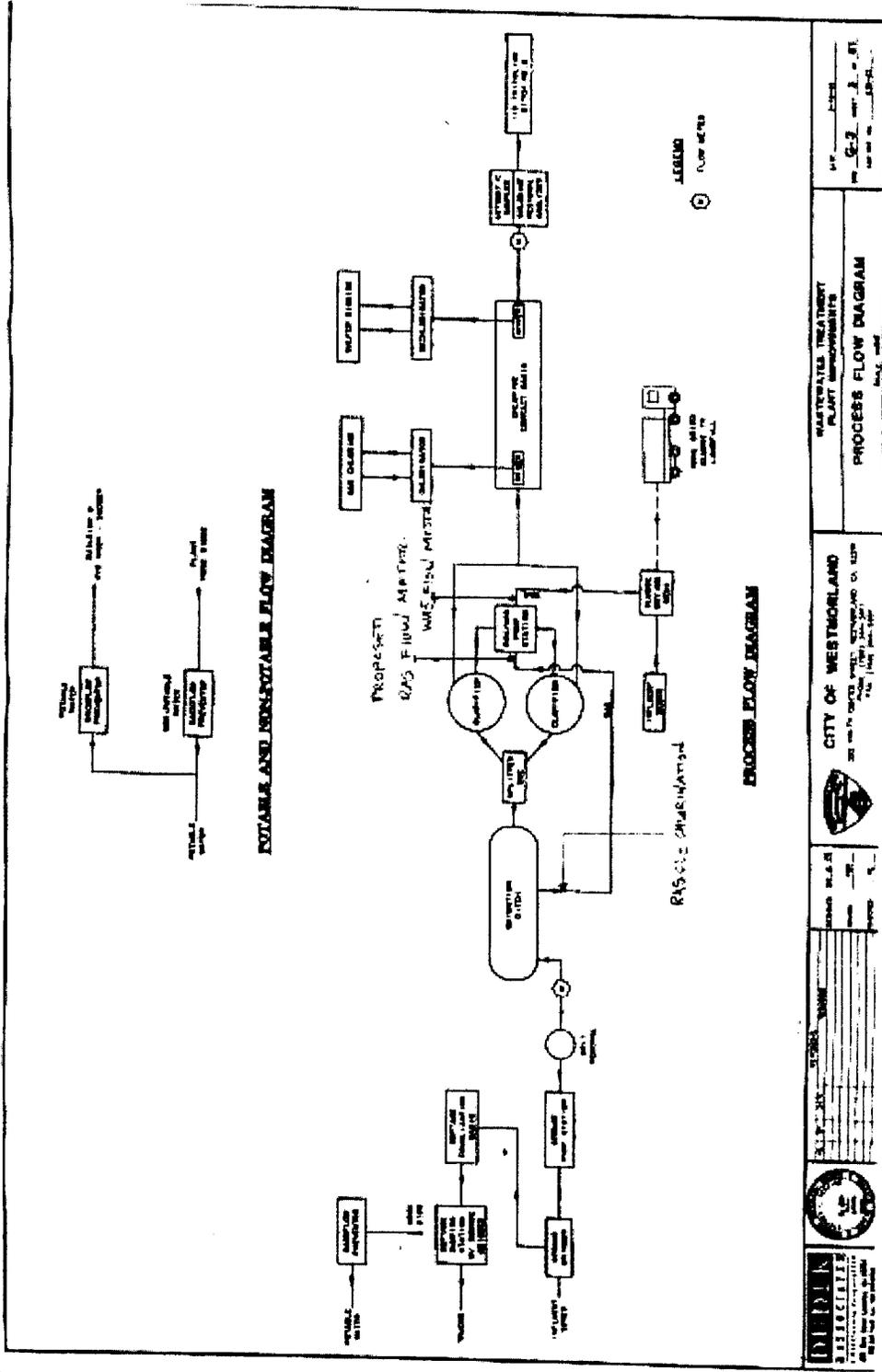
The purchase and installation of the Meters will achieve the following

"Gateway City to the Imperial Valley"

1. Return Activated Sludge flow rates will be accurate, return rates can be pre determined, keeping the required Mix liquor concentration at the level required to achieve maximum efficiency by comparing the effluent quality with systems operating data
2. Solids inventories within the secondary system can be maintained and balanced
3. Waste Activated Sludge flow rates will accurately determined to keep the system within its operating parameters by removing the unneeded sludge concentration within the solids inventory
4. Mean Cell Residence Times can be dialed in achieving maximum operational goals, keeping the treatment facility within its design parameters
5. Solids management can be determined and the daily quantities can be accurately removed from the system and into the drying beds
6. Treatment process will produce the best quality effluent discharge for its design parameters
7. Control guidelines can be measured for the following processes
 - a. Secondary system's MLSS concentration
 - b. Wasting rates
 - c. Return rates
 - d. Solids inventory
 - e. Solids management
 - f. Landfill loading

Attachments

Flow diagram of treatment process with locations of improvements



 CITY OF WESTMORLAND 200 WESTMORLAND AVENUE, WESTMORLAND, CA 94591 Phone: (925) 938-2000	WASTEWATER TREATMENT PLANT IMPROVEMENTS PROCESS FLOW DIAGRAM	DATE: _____ DRAWN BY: _____ CHECKED BY: _____ SCALE: _____
	PROJECT NO. _____ SHEET NO. _____ OF _____ DATE: _____	WESTMORLAND WATER TREATMENT PLANT 1000 WESTMORLAND AVENUE WESTMORLAND, CA 94591