

September 9, 2005

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Mr. Roger W. Briggs  
California Regional Water Quality Control Board  
Central Cost Region  
895 Aerovista Place, Suite 100  
San Luis Obispo, CA 93401

ACTUAL RECEIVED  
SAN LUIS OBISPO, CA 93401

**RE: COMPLAINT FOR ADMINISTRATIVE CIVIL LIABILITY FOR VIOLATION OF WATER RECLAMATION REQUIREMENTS ORDER NO. R3-2002-0061**

Dear Mr. Briggs:

This letter is being submitted by the Monarch Grove Homeowner's Association ("MGHA") to the Central Coast Water Board Hearing Panel in reference to its October 6, 2005, hearing. It is the MGHA's understating that on this date the Hearing Panel will decide whether or not to affirm the Executive Officer's recommended liability of seventy-five thousand dollars (\$75,000), whether to increase or decrease this amount, or whether to refer the matter to judicial civil arbitration. This letter will serve as submitted documentation in support of its argument as requested in your August 22, 2005, correspondence. MGHA retains its rights to submit further oral testimony at the hearing and also to present other evidence that is currently not available but may become available before the hearing date.

**I. History**

In 1994 Allied Engineering Inc. ("Allied") designed and constructed a wastewater treatment plant at Monarch Grove Development which is a 83 home residential housing development in Los Osos, California, built and developed by Anastasi Development Corporation ("Anastasi"). As pointed out in Ms. Sorrel Marks May 31, 2002, presentation, the facility was designed to meet California Code of Regulations, Title 22 reclamation requirements for clarified, oxidized, coagulated, filtered and disinfected wastewater acceptable for golf course irrigation. The facility commenced operation in 1997 under control of Anastasi and MGHA assumed control of it in October of 2001 with the approval of the Regional Water Quality Control Board ("RWQCB"). Since that time it was operated by MGHA until April 1, 2004, when MicroMedia Filtration ("MicroMedia") assumed responsibility for its operation.

Outside of some operational problems in 2001, which were soon corrected as outlined in Ms. Marks presentation to the Board in early 2002, the plant operated reasonably well until 2004 when there was deterioration in the plant's performance. Given this and substantial increases in insurance premiums, the MGHA decided to contact MicroMedia who had been referred by Gordon Helmsley who was and is a member of the Los Osos Valley Community Service District ("LOCSD"). At the time,

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October 6, 2005 Panel Hearing  
Monarch Grove Homeowners  
Association Wastewater Facility

MicroMedia was anxious to demonstrate its Clean Stream system and MGHA was desirous of having a professional operating company operate its system.

Soon after taking over operation of the plant on April 1, 2004, MicroMedia installed its new system without getting proper approval from the RWQCB. The RWQCB instructed them to return to the original plant design but to leave an attachment that was part of their system. Unfortunately, this modification failed to make any significant improvement. In fact, during the year of 2004, results from the plant were not acceptable. Further, and to compound matters, operational reports for the last three months of 2004 were filed after their respective deadlines by Wade Baker the local operator. This caused the MGHA much consternation because it relied on MicroMedia to properly supervise the operator who was its employee at that time.

In December of 2004 the flow rate was reduced and media was changed in the sand filters. Almost immediately there was a dramatic improvement in the operation. There were only a few minor violations which took place in January, February and April of 2005, and there have been no violations since. Further, monitoring wells on the golf course indicate no adverse impact to groundwater quality and there has never been any threat to public health. The MGHA believes that it can keep this positive trend going now that it carefully monitors the results.

MicroMedia abandoned operation of the plant from August 31, 2004<sup>5</sup>, in violation of their contract with MGHA and the MGHA is currently in negotiations with a potential new operator.

## **II. Plant Improvement And Eventual Abandonment**

In an ongoing effort to address the past problems and improve overall plant operation the MGHA has requested professional advice from several different companies. MicroMedia originally suggested changing the screens at the front end of the system at a cost of \$100,000. Because a similar approach was implemented in 2001 without great results, the MGHA did not adopt this solution. Ripley Pacific Company has suggested adding micro filters at the end of the system at a cost of approximately \$60,000. However, given its research, the MGHA was not convinced that this would entirely reduce operating problems. Not happy with these proposed solutions, the MGHA contacted Fluid Resource Management ("FRM"), which is owned/affiliated with John Wallace & Associates of San Luis Obispo.

MGHA commissioned FRM to review the physical plant, meet with the system operator, and to prepare an initial evaluation of the facility. A copy of this report is attached for your review. In a nutshell, it recommends that with some minor modifications and an improved maintenance and inspection system the plant could meet all the permit requirements. Results over the last four months tend to support this solution. With regards to plant modifications, FRM spoke to Allied, the original plant designers, who suggest that a retrofit of the Sludge Storage Tank would improve the plants efficiency. Presently fluids flow back from the Sludge Storage Tank back to the

headworks of the system as there is no way to decant clear water prior to the wasting cycle. Allied has done this retrofit to other similar plants with a degree of success and the MGHA is presently inclined to go with this approach. Allied did not provide a cost estimate of this improvement as of this writing but the MGHA should have one from them for submittal at the October 6, 2005, hearing.

While the MGHA is committed to finding and implementing a solution to its plant, it is happy to report that it has adopted the RWQCB staff recommendation that the proper course of action would be to connect to the LOCSD wastewater system once it is completed and to abandon its plant. On June 6, 2002, the LOCSD Board of Directors accepted the Montgomery Watson Garza and John L. Wallace Associates engineering reports, which outlined the costs and benefits to having the Monarch Grove homeowners connect to the then proposed community system. The LOCSD Board then set a deadline of September 9, 2002, for the MGHA to submit to the Board a request for service and to have a funding commitment in place by June 30, 2003. Realizing the obvious benefit of such a long term solution, the MGHA submitted its service request and has collected from the homeowners approximately \$112,000 that it has earmarked for the LOCSD wastewater hookup. Construction of the community system has recently began and the MGHA anticipates, based on its conversations with the LOCSD representatives, that the Monarch Grove homes will be one of the first connected to the community system within two years. While the MGHA is excited about this ultimate solution, it remains committed to meet the requirements of its wastewater permit until such time as the plant can be removed from service.

### **III. The Penalty**

Based upon the above, the MGHA requests that the Hearing Panel carefully review its situation and find that no penalty be assessed. MGHA feels that this would be appropriate given that none of the past violations ever affected public health nor have they ever affected groundwater quality. Further, the MGHA has been pro-active since day one in trying to find a viable solution for its plant and has worked diligently with the LOCSD in an effort to ultimately connect to its plant. Basically, the MGHA has not been sitting on its hands and its efforts should not be punished.

Should the Board decide to assess a penalty the MGHA requests that it be reduced from the \$75,000 suggested by the Executive Officer. Imposing such a high penalty would create an economic hardship on the majority of the Monarch Grove homeowners who are retired and living on fixed incomes. At the time MGHA received ownership of the plant, Anastasi informed the homeowners that their individual assessed costs associated with running it would decrease as more homes were built and added to the system. This hasn't been the case as homeowner fees have been raised to cover additional costs associated with the more frequent hauling of sludge from the plant, increased insurance, and other operating and maintenance costs. Homeowners are currently assessed approximately \$100 per month for sewer related expense and this will soon increase substantially when a new operator is hired. On top of this, homeowners have already paid individual assessments for the eventual LOCSD sewer hookup.

If the Hearing Panel finds that a penalty is justified, then the MGHA requests that any and all penalty funds be earmarked for either improvements to the plant, additional future operating expenses, or for eventual hookup to the LOCSD sewer system. These are all projects that will alleviate the possibility of past problems repeating themselves and funding them with penalty funds will help lessen the economic blow to the homeowners.

Respectfully submitted,

*Charles Richardson*

Charles Richardson  
President of Monarch Grove  
Homeowner's Association

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SARLES CHARLES RICHARDSON



# FLUID RESOURCE MANAGEMENT, INC.

Operations • Maintenance • Construction

September 3, 2005

Jim Wilson  
Monarch Grove Homeowners Association  
735 Tank Farm Rd, Suite 130  
San Luis Obispo, CA 93401

Subject: Inspection of Wastewater Facility

Dear Mr. Wilson:

After reviewing the Operation and Maintenance Manual, performing an onsite inspection, and meeting with the system operator, Fluid Resource Management (FRM) has compiled this initial evaluation of the facility.

Overall the facility and equipment is operating in substantial accordance with the Operation and Maintenance Manual. All components, with the exception of a ventilation fan, online residual chlorine analyzer, and the automatic sand filter backwash component are in service or on standby, and utilized as intended.

FRM did not have adequate time to thoroughly review the facility plans or a detailed flow diagram prior to this document (having received them yesterday), however the flow pattern through the plant appears to be as originally designed.

Physical changes appear to have been made to the facility to accommodate the Micro Media equipment, and although their piping and tanks remain on-site, the equipment is disconnected from the treatment process. There does not appear to be any other alterations or changes to the original equipment aside from normal repair and replacement.

According to the plant operator, and the June 2004 Self-Monitoring Report, the sand filter no longer operates in the automatic mode. Since this feature is designed to constantly monitor inlet/outlet pressures to the filter, and prevent plugging of the filter media due to poor effluent quality, it is important to restore this feature as soon as possible so that the system operates automatically. Currently the filter is back washing on a timer. This method of control has the potential of allowing the sand to become plugged with material prior to the timed backwash, with the potential to cause effluent quality to degrade.

An inspection of the facility's individual tanks confirms that the plant is configured as originally engineered. All tanks, visible pipes and channels are operational and maintained. The plant is currently operating in recycle mode. During periods of low influent flow, the plant diverts final effluent prior to the sand filter back to the flow equalization tank; this feature provides additional treatment and consistent flow over the filters. During this inspection, each of the clarifiers and tanks were measured for solids depth and scum build-up, the wasting cycle was performed and the tanks were again measured.

Prior to the wasting cycle, each of the clarifiers had little to no scum and between 8 and 14 inches of sludge on the floor, the filter feed tank had no accumulation of scum or sludge, while the sludge holding tank had approximately 7 feet of thin sludge and 3 inches of grit on the floor.

During the wasting cycle each of the clarifiers did waste to the sludge-holding tank as programmed, however, none of the tanks wasted until clear as specified in the O and M manual. Depending on the number of daily wasting cycles, this could allow the buildup of solids in each of the clarifiers, possibly effecting effluent quality.

During the wasting process, the sludge holding tank is aggressively agitated by the newly wasted sludge entering the tank. As currently designed, solids laden supernatant flows directly back to the flow equalization chamber as new sludge is being wasted into the sludge holding tank.

In smaller facilities similar to Monarch Grove, the sludge tank does not decant to the headworks automatically. Normally the clear liquid is pumped from the top portion of the sludge tank after a period of settling, allowing room for newly wasted sludge without returning directly to the equalization tank. This "gap" protects the facility from becoming caught up in "musical sludge" as it is commonly referred to in the industry.

According to the most recent laboratory data and plant records, the facility has met discharge requirements for the past three months and our inspection has uncovered no indication of incompetent operation or catastrophic plant failure. It appears that plant staff has taken steps to improve plant performance since the removal of the Micro Media equipment, however FRM offers the following recommendations to help ensure future compliance.

- A.) Institute Formal Maintenance Program to schedule and document all plant maintenance, calibration of equipment, cleaning and repairs. Utilizing a computerized work order program will ensure all maintenance is performed on time, every time, and problems can be found before they effect the final effluent, causing violations.
- B.) Budget additional staff time for the performance of preventative maintenance activities. According to the Operation and Maintenance Manual, *"...In addition to two part time operators, maintenance personnel should be available for repair and preventive maintenance."*
- C.) Perform an internal flow study within the facility to ensure equipment is operating within design parameters. FRM suspects the Bio Filters are hydraulically overloaded from time to time. Currently, the average daily flow is approximately 20 gallons per minute; the recycle rate should be optimized to maintain the appropriate hydraulic rate over the Bio Filters.
- D.) Inspect and repair the automatic back flush controls for the sand filters to ensure proper treatment of effluent within discharge limitations.
- E.) Alterations to the Sludge Storage Tank to prevent the flow of solids to the flow equalization tank. Currently there is not equipment to decant clear water prior to the wasting cycle, this limits the wasting and aeration time and allows solids to flow to the headworks.

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FRM contacted Allied Engineers Inc., the design engineer, concerning this matter and we were informed that this type of configuration is no longer designed. The engineer indicated that other facilities they designed are being retrofitted with decant equipment to prevent solids from returning to the headworks. FRM staff suspects that the current design is increasing the amount of solids within the treatment system, greatly effecting plant performance and effluent quality. Decanting water from the holding tank and increasing aeration to the tank can improve plant performance by preventing solids from entering the headworks, increased holding time of the sludge providing further organic reductions, and reducing the amount of sludge hauled off site and the cost associated with it.

- F.) Perform cleaning and inspections of all tanks. All sludge removal equipment and aeration headers should be inspected for proper operation. The denitrifier media, located within the final clarifier, should also be cleaned and inspected for proper operation.
- G) Effect repairs to the chlorine analyzer, or replace the unit. Continuous monitoring of the effluent chlorine residual and pacing of the chlorine addition pump insures that the appropriate dosage is added to the effluent without over or under addition, and at many facilities results in substantial chemical cost savings.
- H) Schedule FRM and Allied Engineers Inc. to meet at the facility to offer additional operations input. When FRM contacted Allied, the Engineer we spoke with mentioned that they like to visit facilities annually to get feedback from operators. The Engineer also indicated that if lab data were faxed to their office, they could offer some advice regarding operational changes, which may prove effective.

This report was made from a very basic evaluation of the facility with minimal exposure to the operations staff. Our goal was to determine on behalf of the Monarch Grove Board of Directors, that the plant is configured as originally designed, and operating as intended after the removal of the Micro Media equipment.

FRM stands ready to assist the HOA in any capacity desired, from complete turn-key operation and maintenance of the facility, oversight and management of existing operations staff, or as a contractor who has extensive experience in facility upgrades to meet requirements.

Please call me if you have any questions or need further clarification on any of the subjects discussed herein.

Sincerely;

  
**FLUID RESOURCE MANAGEMENT INC.**

Chris Nally, Operations Manager  
Cc: Chuck Ellison, General Manager, FRM