

STAFF REPORT

TIME SCHEDULE AND CEASE AND DESIST ORDER FOR MADISON COMMUNITY SERVICES DISTRICT YOLO COUNTY

INTRODUCTION

Madison Community Services District (Madison CSD or the District) owns and operates a municipal wastewater treatment facility (WWTF) in Madison, Yolo County. The WWTF currently serves 500 permanent residents and the Madison Migrant Center, which houses up to 480 persons during the harvest season. The WWTF consists of seven unlined percolation/evaporation ponds on approximately 17 acres, and is regulated under Waste Discharge Requirements (WDRs) Order No. 5-00-039.

Between December 1989 and May 1992, the District had several capacity-related violations of the previous WDRs (Order No. 89-235) that led to issuance of Cease and Desist Order (CDO) No. 94-062 in February 1994. The CDO required that the District expand the WWTF by October 1995. The CDO prohibited any discharges to the District's sewer system by new customers until the expansion was completed.

In 1998, the District constructed two additional percolation/evaporation ponds. However, the "Phase I" project did not comply with the CDO because it provided capacity for only 13 of the 46 undeveloped parcels within the district. The District proposed to add a 10-acre spreading area as a Phase II Expansion Project.

Therefore, on 17 March 2000, the Regional Water Board adopted Amended Cease and Desist Order No. 94-062 as a companion order to revised WDRs Order No. 5-00-039. The Amended CDO restricted new sewer connections to the 13 equivalent dwelling units that could be served by the Phase I Expansion Project and required that the District complete the Phase II expansion by October 2001.

The District has not completed any of the tasks set forth in the Amended CDO and has not complied with staff's requests to come into compliance. Since adoption of the Amended CDO, the District has authorized nine additional residential sewer connections, leaving four connections available for future users.

Due to inadequate implementation of Monitoring and Reporting Program No. 5-00-039, current influent flows are not well known, but appear to be approximately 96,000 gallons per day (gpd) as an average daily dry weather flow. Despite the fact that influent flows appear to be far lower than the permitted limit of 141,000 gpd, recent violations of the WDRs show that the facility does not have sufficient storage and disposal capacity to comply with the WDRs.

In addition to the District's failure to comply with the Amended CDO, staff has identified the following additional problems:

1. The WWTF groundwater monitoring system is inadequate. On 15 March 2005, the District submitted a Monitoring Well Installation Workplan at staff's request, but never completed the well installation citing a lack of available funds.

2. Unreasonably high sewer infiltration/inflow in early 2006 led to freeboard violations and a release of wastewater to a drainage ditch near the WWTF.
3. Fifty-eight residents of the Madison Migrant Housing Center complained of persistent foul odors emanating from the facility for several days in August 2006.
4. Biosolids may have accumulated in some of the wastewater ponds to the point where wastewater storage and disposal capacity is affected.
5. Freeboard violations in early 2007 threaten to cause releases of wastewater to surface waters if not corrected before there is significant additional rainfall.

The Yolo County Administrator's Office has secured a Community Development Block Grant for Madison CSD that would provide a \$75,000 low-interest loan and a \$400,000 grant for the following:

- Installation of new monitoring wells;
- Reconstruction of the WWTF headworks to improve worker safety and reliability;
- Retrofitting the existing wastewater pond berms to raise the height of the berms and provide additional capacity; and
- Project administration by County staff.

The tentative Order was issued for public review on 20 December 2006, and the comment period (which lasted 41 days) ended on 30 January 2007. Madison CSD did not comment on the tentative Order during that period.

On 24 January 2007, Regional Water Board staff met with a Yolo County Supervisor, staff of the Yolo County Administrator, the Executive Director of the Yolo County Local Agency Formation Commission (LAFCO), and the President of the Madison CSD Board. Staff was informed that the District's board of directors does not have a quorum and has not delegated authority to make decisions or speak on behalf of the board to any person. Therefore, the Madison CSD board had been non-functional for several months and was not in a position to respond to the proposed Order or to take any action to prevent spills from the wastewater ponds. The funds earmarked for the loan must be drawn down before the grant funds can be disbursed, but the District board must authorize the disbursements in writing, which it has not yet done. Therefore, the County has not yet released any funds to the District.

On 6 February 2007, the Yolo County Board of Supervisors appointed a new member to the Madison CSD board, which now has sufficient members for a quorum. On 7 February 2007, staff met with members of the Madison CSD board and discussed the issues cited in this Order. The board members agreed to discuss the emergency discharge plan at a meeting on 8 February 2007.

As of 7 February, none of the District board members had reviewed the tentative Order. Staff urged them to do so and to submit written comments as soon as possible. On 9 February, one of the District board members requested an extension to 19 March 2007 to provide written comments on the Order. Staff did not grant the extension, but issued the Revised TSO/CDO and staff report on 26 February and encouraged the District to submit comments by 8 March,

which would allow staff some time to consider the comments before the scheduled Regional Water Board hearing.

PROPOSED TIME SCHEDULE AND CEASE AND DESIST ORDER

The proposed Time Schedule and Cease and Desist Order (TSO/CDO) addresses the following compliance issues:

1. A lack of storage and disposal capacity that has existed since the late 1980s;
2. Accumulation of biosolids that causes nuisance odors and may be exacerbating the capacity problem;
3. Unreasonable sewer infiltration and inflow rates that exacerbate the capacity problem; and
4. An inadequate groundwater monitoring network.

The proposed Order contains two separate sections of requirements: a Time Schedule Order pursuant to California Water Code (CWC) Section 13308 and a Cease and Desist Order pursuant to CWC Section 13301.

The TSO portion of the Order requires that the District comply with Amended Cease and Desist Order No. 94-062 by completing a facility expansion to accommodate expected flows from all parcels within the district by 30 September 2009. The Amended CDO restricted new connections to 13 equivalent dwelling units until full compliance was achieved. The District has since authorized a total of nine connections, leaving four available under the Amended CDO. Therefore, the TSO portion of the Order restricts the number of new connections to four equivalent dwelling units until full compliance is achieved. It also requires that the District submit quarterly compliance progress reports. As allowed by CWC Section 13308, the TSO portion of the proposed order sets forth specific monetary penalties to be assessed for each late or incomplete report.

The CDO portion of the proposed Order addresses issues that have come to light since adoption of the Amended CDO in March 2000. Because these issues were not identified or addressed in the Amended CDO, work required to address these issues is addressed separately under the CDO portion of this Order. TSOs issued under CWC section 13308 apply to violations of existing orders, such as the Amended CDO. (See CWC 13308(a)). The CDO portion of the proposed Order requires that the District complete all of the work that has been approved as the scope of work to be accomplished using the Community Development Block Grant:

1. Correct the inadequate groundwater monitoring network by installing new monitoring wells in accordance with a workplan that was previously approved by staff.
2. Increase the height of wastewater pond berms.
3. Construct a new headworks.
4. Improve the main lift station.

It should be noted that Regional Water Board staff had no involvement in developing the scope of work that was proposed in the grant application, and has not received any documents describing the scope of the project in detail or a capacity analysis that shows how the increase in berm height will increase the WWTF's storage and disposal capacity. The funds from the Community Development Block grant must be expended by 30 November 2007, and all that is needed to begin disbursement of the funds is the District's authorizing signature.

The CDO portion of the proposed Order also requires that the District assess the impact of accumulated biosolids on the WWTF capacity and remove biosolids as necessary to improve capacity by June 2009. Additionally, because of known high sewer inflow during frequent floods, the District must implement an I/I Assessment and Correction Workplan over the next five years. The first year of I/I correction must address sources of inflow that are already known. Finally, the District is required to submit and immediately implement a Spill Contingency Plan to prevent discharges of waste to surface waters.

The CDO portion of the proposed Order also requires that the District comply with the Revised Monitoring and Reporting Program. In addition to routine monitoring and reporting required of all similar discharges, the Revised Monitoring and Reporting Program requires that the District present an I/I assessment and correction report in the Annual Monitoring Report that includes a quantitative evaluation of I/I reduction achieved by the previous year's work and a calibrated water balance that demonstrates current capacity during the 100-year, 365-day precipitation event. This will allow staff to track the capacity benefits derived from the work required by the proposed Order.

OUTSTANDING ISSUES

The tentative TSO was issued for public review on 20 December 2006, and comments were due by 20 January 2007. Staff received written comments from Jay and Lillian de los Reyes, who own undeveloped parcels in Madison. A copy of the comment letter is provided as Attachment A of this Staff Report. As of 23 February, staff has not received any comments from the District. Staff considered all of the comments and made some revisions to the tentative Order, as appropriate.

Concerns of Jay and Lillian de los Reyes

The de los Reyes' own property in Madison that they have not been able to develop because of the connection restriction imposed by Amended CDO No. 94-062. They object to the proposed Order. Their concerns are summarized below followed by staff's responses.

1. The de los Reyes' state that the proposed Order is "not based on solid grounds" because the Amended CDO required that the District expand the WWTF to accommodate future development on land that was not within the District's sphere of influence. In essence, they believe that the District's capacity problem exists only on paper, and that a new enforcement order is not necessary.

Staff relied on the work of the District's engineering consultant and his recommendations when preparing the Amended CDO, because that information was submitted by the District

as its stated plan of action to accommodate current flows and anticipated growth within the district. Staff used the District's proposed scope and schedule to develop the Amended CDO. According to the District's May 1994 Wastewater Expansion Plan (upon which the original CDO was based), there were, at that time, vacant parcels within the District's boundaries that could support 46 additional equivalent dwelling units if developed. Based on recent communication with LAFCO staff, Regional Water Board staff has no reason to doubt that the expansion plan was based on an appropriate expectation of growth within the District. It is true that the Migrant Center is not within the District's boundary. LAFCO staff is aware of this, and reports that there is most likely an out-of-district service agreement between the CSD and the Yolo County Housing Authority. However, the LAFCO file does not include a copy of that agreement.

More importantly, the capacity problem is quite real as evidenced by freeboard violations and the spill in early 2006, as well as the freeboard violations of late 2006/early 2007. As noted in the findings of the proposed Order, current influent flows appear to be approximately 96,000 gpd as an average daily dry weather flow, which is far lower than the permitted limit of 141,579 gpd. Because the District has not submitted a calibrated water balance it is not possible for staff to evaluate the actual current capacity of the WWTF. Likewise, staff cannot evaluate whether the planned increase in the berm height will correct the capacity problem because no design or post-construction projected capacity analysis has been submitted for review.

During a meeting with District board members on 7 February 2007, staff was informed that the community has unresolved drainage problems that frequently cause flooding within the town. When flooding occurs, residents open their sewer cleanouts and sewer manholes to prevent property damage. According to the District, both the Migrant Center and town residents have been warned of the consequences of floodwater inflow to the WWTF, but this has not been effective. Flood insurance rate maps for the community show that the entire town is within the 100-year floodplain of Willow Slough. Yolo County is currently updating its General Plan and has identified repetitive flooding in Madison as a major concern.

Staff is also concerned that accumulated biosolids may be displacing some of the storage volume in the ponds, that a long-term lack of pond maintenance may have reduced percolation rates, and that inflow and infiltration from the Migrant Center and the community has impacted capacity. The proposed Order is specifically designed to ensure that the District addresses the deferred maintenance issues, correction of which may resolve some or all of the capacity problem.

2. The de los Reyes' expressed concern that the proposed Order would cause "harmful and unsafe conditions" because full compliance is not required until 2012. Specifically, they asked: "...How much environmental harm has been created? Has the water supply been contaminated? What impacts have there been on the beneficial uses of the Yolo Bypass, and Sacramento River?"

The proposed Order was revised to require that the District complete the scope of work funded by the Community Development Block Grant by 30 June 2008. In actuality, the District is required to use the funds by November 2007. However, because of the delay in

implementing the grant projects, it may not be possible to complete the work before the grant deadline. The compliance date was extended to June 2008 to allow for a possible extension of the grant deadline.

As noted above, staff does not have sufficient information to assess the capacity benefits of the grant project. Therefore, the District is required to construct additional storage and disposal capacity as needed by June 2009. The proposed Order also requires that the District implement an inflow/infiltration assessment and correction project over five years with the final phase to be completed by 30 September 2012. The Revised Monitoring and Reporting Program requires that the District submit a revised capacity analysis each year, which will allow staff to track the capacity benefits of both the berm projects and I/I reduction efforts. Given the nature of the work that must be done, the time schedule provided in the proposed Order is reasonable.

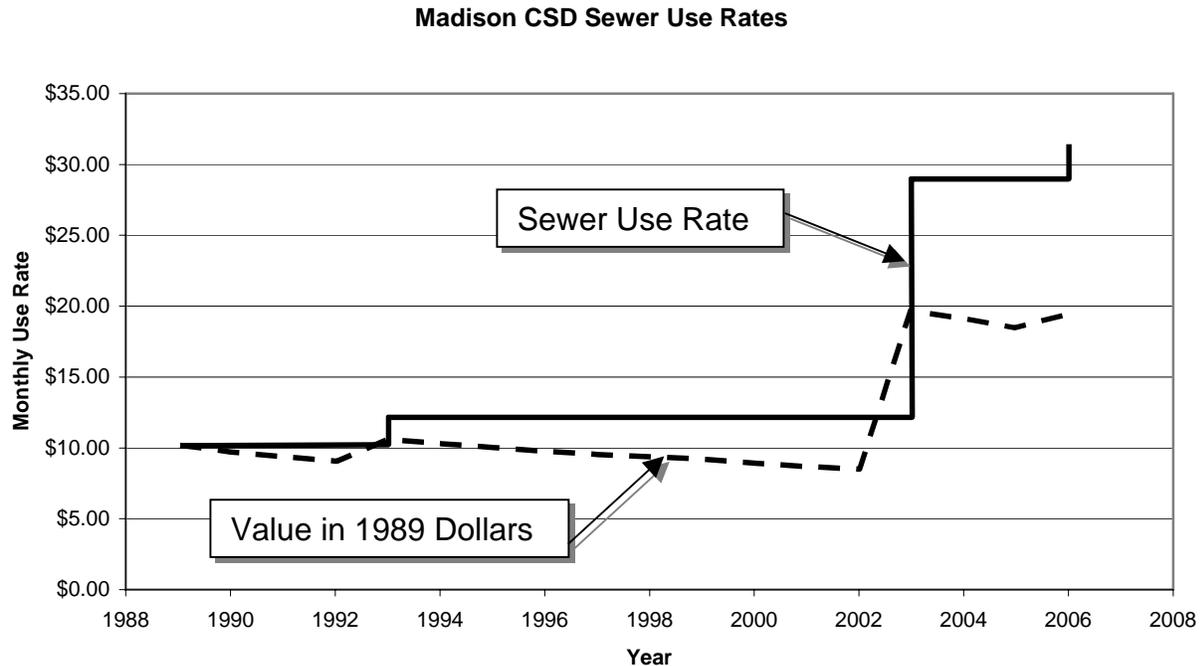
Staff shares the de los Reyes' frustration about the District's failure to comply with the previous enforcement orders. However, there is no evidence at this time that the town's water supply has been contaminated by the WWTF. The public water supply is monitored regularly and the results are reported to the Yolo County Environmental Health Department. To date, the County has not notified Regional Water Board staff of any water supply contamination attributable to the WWTF.

Based on the WWTF's reliance on percolation for effluent disposal and the relatively shallow groundwater at the site, it seems likely that groundwater quality has been degraded beneath the ponds. For this reason, the proposed Order requires that the District install new monitoring wells and evaluate groundwater quality. However, both the Yolo Bypass and the Sacramento River are several miles from the WWTF, and there is no reason to believe that the discharge has impacted the beneficial uses of those resources.

3. The de los Reyes' express concerns about the cost of compliance and its effects on the people in the community. They state that the monthly sewer service charge was raised 100% a few years ago, but the problems have not been resolved.

The Regional Water Board does not regulate or otherwise control the administrative functions of Madison CSD. At this time, staff has no way of knowing whether the District's income is adequate or wisely spent. The cost of compliance with the proposed Order will be significant, and those costs will be borne by the District's customers. However, the District can apply for grants and low interest loans to finance the work, and has been advised of these options by Regional Water Board staff, Yolo County staff, and the District's consultant many times during the last several years.

Records at the State Water Resources Control Board show that the recent sewer use rate increases came after an extended period of no increases, as summarized in the graph below.



The pattern of rate increases shows that the District experienced a yearly decline in real income between 1993 and 2002 because it failed to increase its rates. Most of the issues addressed in the proposed Order are the result of many years of deferring maintenance and not implementing a routine I/I evaluation/correction program. The negative effects of the District's failure to adequately fund the facility have compounded over time to create the current capacity crisis:

- Passive pond treatment systems accumulate biosolids, which can diminish pond percolation rates through biofouling and occupy an increasing volume as time passes. The District should have developed a plan and budget for regular pond cleanout every 10 to 15 years, and should have been saving the money for the pond cleanout that will be needed in the near future. Because the District failed to account for this budgetary item, the District will be forced to borrow money or obtain grant funding that would be better spent modernizing the facility to provide a higher level of treatment.
 - For well-managed sewer systems, it is common practice to assess the condition of five to ten percent of the sewer system each year and complete repairs/retrofits as problems are identified. The District has known of the floodwater infiltration problem for several years and has made no real effort to correct the problem. The District should have developed a plan and budget for yearly sewer assessment and repair long ago, and should have regularly expended the funds allocated to this routine operation and maintenance item. Its failure to do so means that the project required by the proposed Order will probably have to be funded with loans or grants.
4. The de los Reyes' comment that it is unfair to require current customers to pay for expanding the WWTF to comply with the proposed Order, even though owners of property outside of the district will benefit from the expansion.

As noted above, the Regional Water Board does not regulate or otherwise control the administrative functions of Madison CSD. If the District complies with the proposed Order, current customers will pay to service any loans needed to fund the work required by the Order that is not already funded by the Community Development Block Grant. However, it is common practice for developers to pay a per-unit connection fee commensurate with the cost of the capacity that each new connection will use. Presumably, Madison CSD will pass the capital cost of expansion to future development as it occurs, and its current customers will see those benefits later. It should also be noted that customers pay nothing for improvements constructed with grant funds.

5. The de los Reyes' believe that the Amended CDO has prevented them from developing their property. Yolo County has agreed to process the approval of their subdivision if the District provides a "will-serve" letter. However, the District has told them that it cannot do so because of the Cease and Desist Order. They state: "Is not RWQCB responsible for basing its orders on faulty recommendations? ... The RWQCB has failed, in the case of Madison, to fulfill its responsibility."

Both Yolo County staff and the District have acted properly in not allowing new connections to a WWTF that does not have sufficient capacity to accommodate those connections. Unfortunately, the District has chosen not to comply with the Amended CDO and (predictably) the capacity problem has worsened over the years because of the District's failure to properly operate and maintain the sewer system and the WWTF.

The Amended CDO was not based on faulty recommendations, but on objective facts (documented violations) and the professional judgment of the District's previous and current consultants. Staff has seen no evidence that those recommendations were faulty.

The Regional Water Board's responsibility is to protect water quality and ensure compliance with adopted orders. The California Water Code provides the Regional Water Board with ample authority, but generally limits its enforcement authority to issuance of administrative civil liabilities (monetary damages) and referral to the Attorney General. Rather than issue an administrative civil liability complaint that would reduce the District's already limited financial resources (and which current customers would have to pay for), Regional Water Board staff has been trying to work with the District for several years by meeting with District representatives to discuss the issues and possible solutions, and by encouraging the District to retain an engineering consultant to assist with plans for expansion, obtaining financing for the improvements, and recommending operational protocols. Because these efforts have not resulted in any significant improvement, staff has developed the proposed Order with the intent of fully enforcing it if the Regional Water Board adopts it.

6. The de los Reyes' conclude: "We want the RWQCB to tell the district to provide services to properties within the district, including ours, because there is adequate capacity for them and because these properties should have priority over those outside the district. We want the RWQCB to enable a fairer revenue plan. We want RWQCB to make the district focus on stopping the stormwater infiltration of the system to prevent more sewage spills."

Staff is confident that the WWTF does not currently have capacity for additional connections. The proposed Order requires that the District address the capacity problem so that it will be able to provide service to all land owners within the District and requires that the District address the flood water inflow problem by December 2008. It is up to the District to manage itself and develop a revenue plan that complies with applicable codes and that will sustain proper operation and maintenance of the WWTF.

DISCUSSION

Madison CSD has a long history of capacity-related compliance problems. The Regional Water Board has previously issued two Cease and Desist Orders that the District has largely disregarded. For years, staff has been making a special effort to assist this District in understanding the issues and finding a consultant to assist them further. However, the District has generally been unresponsive to staff's communications and has made little progress towards compliance. Furthermore, the District does not seem to understand the fundamental principles of wastewater treatment system operations and maintenance or of public agency administration.

Yolo County has had a difficult time ensuring that the District board has a quorum, and the District has not formally delegated authority to act on its behalf to any party. As a result, there have been at least two extended periods in the last three years when the District could not act, even to issue correspondence. District board members and their previous secretary have expressed little faith in the abilities of their consultant, but have not taken action to hire another. The District's certified wastewater treatment plant operator submits the required monitoring reports, but does not report violations or impending violations as required by the Standard Provisions and Reporting Requirements. In essence the Madison CSD does not function well, if at all.

Based on this experience, staff has little faith that the District will comply with the proposed Order unless it is rigorously enforced. Unfortunately, enforcement means taking money from a District that undoubtedly has no money to spare. Because the proposed Order may not be the final solution to the District's compliance problems, this staff report discusses options for the Regional Water Board to consider.

Option 1 – Reject the Proposed TSO/CDO and Enforce the Amended CDO

This option would require that the District plan and construct the Phase II WWTF expansion as originally envisioned. Because all of the deadlines in the Amended CDO have passed, enforcing the CDO would involve issuing an Administrative Civil Liability Complaint (ACLC). This option would not address issues that have been identified since adoption of the Amended CDO.

Option 2 – Reject the Proposed TSO/CDO and Refer the Matter to the Attorney General

This option is an alternative to Option 1. Rather than issuing an ACLC, the Regional Water Board would agree that the Office of Chief Counsel should refer the matter to the Attorney General for investigation and possible criminal and/or civil prosecution. Again, this option would not address issues that have been identified since adoption of the Amended CDO.

Option 3 – Adopt the Proposed TSO/CDO and Enforce As Necessary

If the Regional Water Board adopts the proposed Order, there appears to be a strong possibility that the District will fail to comply as it has in the past. Although the Community Development Block Grant has been approved, the projects that it will fund still require active management on the part of the District board, which has shown little effort to do so in the past. Additionally, the grant projects are not likely to completely resolve the capacity issue, and several of the other tasks set forth in the proposed Order will have significant costs that will not be funded by the current grant. In order to comply, the District will have to become more active and proactive than it has ever been to secure the necessary funding, manage operation of the WWTF, and manage its employees and contractors to ensure compliance with the WDRs and the proposed Order. At this time, there is no indication that the District will do so. Therefore, staff assumes that additional enforcement will be necessary.

Option 4 – Adopt the Proposed TSO/CDO and Take Extraordinary Measures to Assist the CSD

This option involves dedicating significantly more staff time to “baby-sit” the District. Conceptually, staff could spend several hours per week staying in contact with the District board, its certified operator, its consultant(s), and various County departments in an attempt to keep the District moving in the right direction. It would likely involve frequent meetings with the District board in an effort to educate board members about the fundamentals of wastewater treatment, WWTF operation and maintenance, and the business aspects of District administration. Such an effort would be extraordinary in terms of staff resources expended, and unprecedented in terms of staff’s typical relationship with regulated dischargers. It should be noted that Madison CSD is not the only small district with similar problems, and that staff’s workload is such that we are not able to provide this level of service to all districts.

CONCLUSION

Madison CSD has failed to comply with two previous Cease and Desist Orders, has a long history of failure to properly operate and maintain its sewer system and wastewater treatment facility, and has a serious storage and disposal capacity deficit that threatens surface water quality. The proposed Order addresses all of these issues. Therefore, staff recommends that the Regional Water Board adopt the TSO and CDO Order as proposed.

Attachment A: Comment Letter Received in January 2007

15/16 March 2007 Regional Water Board meeting

ALO: 28-Feb-07