

Yosemite West Waste Water Treatment Facility

Introduction

Yosemite West is a subdivision consisting of 294 lots on 109 acres off Wawona Road surrounded on three sides by the National Park. Originally constructed in 1967, at present there are dwellings on 148 or about 50% of the lots.

Yosemite West Maintenance District (also known as Yosemite West Community Services District) is a special district within Mariposa County designed to finance and maintain the water, sewer and roads of Yosemite West. It is set up as a “dependent” district meaning its directors are the supervisors of Mariposa County (unlike “independent” districts such as the John C. Fremont Hospital and the school system that have their own directors).

The Yosemite West Waste Water Treatment Facility is located on 27 acres of steep, terraced ground above 5,000 ft. elevation. It receives an average of 47.2 inches of precipitation annually and often as much as five feet of snow. Located a considerable distance from the plowed road, the plant is reachable only via a recently purchased snow cat during the winter months.

The Yosemite West Maintenance District Advisory Committee (YWMDAC) “acts as a liaison between Yosemite West property owners and the Mariposa County Public Works Department, which is responsible for the daily operation of the Yosemite West Maintenance District. The recommendations that the YWMDAC makes to the Mariposa County Public Works Department are not binding. The Mariposa County Public Works Department reviews any recommendations and proceeds with those they feel have merit. Any major activities or policy issues generally go before the Mariposa County Board of Supervisors for approval.”¹

The Grand Jury’s attention was drawn to the problems with Yosemite West’s sewer system in two ways. First, as part of its review of the Public Works Department, the members of the Grand Jury interviewed the Director of Public Works. He reported that an inordinate amount of his time was devoted to the problems of Yosemite West. And soon after this interview was conducted, we received a citizen’s complaint regarding the county’s handling of the ongoing problems with the Yosemite West Waste Treatment Facility.

To date our investigation has involved a further meeting with the Director of Public Works, attendance at a meeting of the YWMDAC with numerous County officials followed by a brief meeting with members of the YWMDAC, and review of numerous documents provided to us by the Public Works Director and the YWMDAC. It is immediately apparent that the relation of the County to Yosemite West is long and complicated. However, in this initial report we will focus solely on the matter of the sewage treatment facility. And this discussion should be undertaken in light of the fact that, at least in retrospect, to some eyes it appears that the problems with providing adequate sewage treatment in this particular location are so extreme that perhaps the subdivision should never have been allowed.

¹ Website of Yosemite West Property & Homeowners, Inc

Of course, such hindsight does us little good in the face of the existing situation. Now the only questions are how to go forward to provide adequate sewage treatment and who should pay for it. The County has secured the expert advice of the engineering firm of Provost and Pritchard to answer the first question. Their recommendations are currently under review by the state. Assuming approval is forthcoming, action will have to be taken quickly to finance and complete the necessary repairs in the remaining months before snow makes the site inaccessible. For that to happen the five individuals who are simultaneously the directors of the Yosemite West Maintenance District and County Board of Supervisors will have to determine how the repairs will be completed and paid for. It is hoped that this report will shed some light on that question.

Facts

As indicated above, the problems with the sewage system in Yosemite West have been long and complex. Below is a timeline of the major events regarding the treatment facility. Though we have not independently confirmed the validity of all of the events recorded below, they have been reviewed without objection by numerous parties concerned with this investigation, and the Grand Jury believes this account to be essentially accurate.

Yosemite West Wastewater Treatment Facility (WWTF) Timeline

- 1967 The Yosemite West Subdivision Unit #1, consisting of 294 parcels on approximately 109 acres, is built.
- 1985 The case of County of Mariposa v. Yosemite West Associates (the original developers of Yosemite West) awarded \$344,684 (\$153,500 for sewer repairs and \$191,184 for water storage) to the [Yosemite West Maintenance] district. This lawsuit was initiated by property owners (Ringrose et al.).
- 1988 The Court of Appeal of California, Fifth Appellate District, upheld the 1985 Superior Court judgment in County of Mariposa v. Yosemite West Associates, enabling the Yosemite West Maintenance District to continue operating.
- 1998 Mariposa County Board of Supervisors Resolution 98-393 states "Whereas on or before May 15, 1998, the leach field which services the sewer system for Yosemite West Maintenance District suffered a total failure, causing treated and untreated sewage to flow from the leach field to open ground."
- 1998 The Mariposa County Board of Supervisors passed Mariposa County Ordinance No. 934 on June 23, 1998 instituting a building moratorium in Yosemite West "to prohibit additional hook-ups and to prohibit the issuance of permits...."
- 1999 Noting that YW WWTF was incapable of handling the sewage of the then-existing 110 built lots and 48 condominiums in the YW development, the Central Valley Regional Water Quality Control Board (RWQCB) issued Order No. 99-004, Water Discharge Requirements, April 30, 1999. This limited discharge flows to 60,000 gallons per day (gpd) and required modifications in the WWTF to meet full build out, monitoring of the WWTF, ground water monitoring, and reporting.

- 2002 At the April 23, 2002 meeting, the Mariposa County Board of Supervisors adopted Resolution 02-128 agreeing not to include the financial advances provided by the County to the District in the bond assessments; that is, to contribute \$1.08m funds, already advanced by the County for repairs, to the Yosemite West Maintenance District.
- 2003 The RWQCB issued Cease and Desist Order from Discharging Waste Contrary to Requirements, Order No. R5-2003-0070, April 25, 2003.
- 2004 Mariposa County revised and set a rate structure designed to cover operations, maintenance and long term equipment replacement costs of the WWTF, as required by USDA Rural Development funding.
- 2004 On March 11, 2004, Mariposa County mailed the ballot(s) for the Yosemite West WWTF Upgrade Assessment to property owners, which were due back to the County by April 27, 2004. The ballot passed with a confirmed assessment of \$9,996.21 per "equivalent dwelling unit" (EDU).
- 2004 Notice of Confirmed Assessments, Cash Prepayment Option and Corrections for the County of Mariposa Assessment District No. 01-1 (Yosemite West Wastewater Facilities Project) were due to Mariposa County by June 7, 2004.
- 2004 On November 15, 2004, the RWQCB further commented on Cease and Desist Order, Order No. R5-2003-0070. By this day Mariposa County was required (by the Cease & Desist Order, requirements) to submit a technical report on completion of high priority tasks, and certification from a CA registered civil engineer that the modified WWTF is capable of providing adequate treatment and disposal capacity. (The 30 August 2012 Notice of Violation states that the RWQCB was unable to find documentation that the technical report describing completed improvements in regard to the Cease and Desist Order was ever received.)
- 2004– The WWTF was rebuilt with approximately \$4m funds from the ballot assessment
2005 (\$3.08m from the bond assessment, \$242,496 federal EPA grant, and a USDA Rural Development loan to be repaid by property owners).
- 2006 The new WWTF was brought online.
- 2006 On April 25, 2006, the Board of Supervisors of Mariposa County voted in favor of lifting the building moratorium effective June 1, 2006. [It was later learned via the March 2, 2012 Preliminary Evaluation by Provost & Pritchard Consulting Group and in the 2012 Notice of Violation from the RWQCB that the County lifted the building moratorium prematurely because the required technical report assuring that the WWTF "could adequately treat and dispose of an average daily flow of 100,000 gallons" was never received by the RWQCB.]
- 2006 Shortly before September 29, 2006, the Mariposa County Board of Supervisors voted in favor of transferring the balance of unspent ballot assessment funds (approximately \$300,000) from the Yosemite West Maintenance District to the County's General Fund. This topic was further discussed at the October 27, 2006 Mariposa County

Board of Supervisors' meeting. (The appropriateness and legality of this transfer has never been resolved.)

- 2006–2012 Since the building moratorium was lifted in 2006, approximately 37 new houses have been built (28 have been completed, 8 are under construction, and 1 is a second house on a single parcel under construction).
- 2011 As of Nov. 15 the County appoints a new permanent Director of Public Works. Aware of the numerous problems in Yosemite West, he begins a search for an engineering firm capable of thoroughly addressing the issues in the District - ultimately selecting Provost and Pritchard whose services he first requests in January 2012.
- 2012 Provost & Pritchard Consulting Group prepares the County of Mariposa Yosemite West WWTP [sic] Preliminary Evaluation, March 2, 2012. Property owners learn that basically the \$4m WWTF is failing after six years (i.e., the facilities "fail to perform in accordance with the Waste Discharge Requirements between 4 to 6 months per year") and the community recently learned that the facility was inadequately designed and improperly maintained per the March 2, 2012 Preliminary Evaluation prepared by Provost & Pritchard Consulting Group.
- 2012 The RWQCB receives a citizen complaint, April 2012, which leads to an inspection of the facility.
- 2012 Provost & Pritchard Consulting Group issues a Memorandum, with recommendations for initial actions, May 29, 2012.
- 2012 The RWQCB issues a Notice of Violation, August 30, 2012 citing numerous maintenance failures leading to discharge into the watershed.
- 2012 On October 9, 2012, the Mariposa County Board of Supervisors approved a \$32,500 expense to hire an engineering firm to prepare an evaluation and report about needed repairs to the WWTF. This expenditure was authorized to come from the [Yosemite West Maintenance] Special District, not the County General Fund.
- 2012 Provost & Pritchard submits three new reports for the Yosemite West WWTP to Mariposa County on December 7, 2012:
 - Effluent Disposal Study (15 pages with Attachments A-G and Appendix);
 - Treatment Plant Upgrade Plan (13 pages plus 3 Exhibits, Appendices A-H); and
 - Monitoring Well Network Study (5 pages with 3 Exhibits)

Findings

Distilling the above timeline into a more manageable story of the history of this treatment plant, we arrive at the following:

1. In 1985 the court ruled that the original design and construction of the plant was flawed and awarded the County money to fix it. (Though it is tangential to this

report, it should here be noted that \$36,000 of that award was specifically designated for the installation of gate valves and thrust block kickers for the fire hydrants; At the December 13, 2012 Yosemite West Maintenance District Advisory Committee meeting a County Technician reported that the Yosemite West hydrants do not have thrust blocks, and some (all?) were lacking gate valves. This obviously raises the troubling question of whether the County ever did, in fact, use the awarded money to install the gate valves and thrust blocks on the fire hydrants.)

2. In 1998 the leach field suffered a total failure resulting in the County declaring a building moratorium for Yosemite West.
3. In April 2002 the County released \$1.08 million from the general fund for repairs to the Yosemite West Maintenance District some of which presumably went toward repairs to the treatment plant.
4. Faced with the need for major repairs to the plant, in 2004 the property owners of Yosemite West passed a ballot measure essentially charging each equivalent dwelling unit with a \$10,000 fee to be used for the re-construction of the facility.
5. Major renovations at a cost of \$3-4 million were undertaken on the plant with the County approving the design of those repairs. Work was completed in 2006 and the building moratorium was lifted (apparently without the County ever demonstrating that the plant could meet the requirement of adequately treating and disposing of an average daily flow of 100,000 gallons).
6. Six years later in 2012 both the State water quality board and the County's new engineers, Provost and Pritchard, assert that the plant is not functioning adequately. Apparently faulty design and inadequate maintenance are to blame.
7. The initial report from Provost and Pritchard (March 2, 2012) details numerous design and operational shortcomings of the plant. These include:
 - a. the absence (since November 2011) of a functioning flow meter at the head works,
 - b. the need for a self-cleaning screen rather than a grinder to eliminate non-biodegradable solids,
 - c. the presence of a standpipe of "unknown benefit,"
 - d. several diffusers in the lower lagoon in need of repair/replacement,
 - e. a discharge pipeline of insufficient size (2") to handle projected flows,
 - f. a lift station equipped with hydraulic capacity and pumps that are not appropriate to wastewater treatment facilities,
 - g. more diffusers in need of repair/replacement in the upper lagoon,
 - h. no apparent means of removing solids from the upper lagoon,
 - i. a clarifier that was completely frozen over with one small heater "used to prevent the ice layer to essentially block a large portion of the weir,"
 - j. difficult to access strainers and no information regarding the removal of solids by the strainers,
 - k. non-functioning disposal facilities/leach field with a clayey layer of soil that "would present a direct impediment to disposal through percolation,"
 - l. Geoflow Inc. products used to dispose treated effluent through evapotranspiration and to be used in biologically active soils – two characteristics not present in the YW site.

- m. No indication of the required maintenance procedures and specific winterization measures required for Geoflow products.
8. In the Notice of Violation issued by the Central Valley Regional Water Quality Control Board following their May 30 inspection of the treatment plant, the following instances of non-compliance were listed:
 - a. Flow meter not maintained in good working order,
 - b. Biolac diffusers not maintained in good working order,
 - c. Clarifier not maintained in good working order,
 - d. Failure to maintain leach fields in good working order (area brushed over and surfacing effluent and odor of sewage)
 - e. Spill prevention and control plan not maintained on site,
 - f. Written sampling plan not maintained on site.
9. At present plans to resolve these issues designed by Provost and Pritchard have been submitted to the State Water Quality Control Board. If they are approved, they will be put out to bid, and the question of how to pay for a second major re-build will have to be answered.
10. A meeting of all the interested parties including the State Water Board, Provost and Pritchard, the Public Works Director and staff, the Board of Supervisors (who are the Directors of the Maintenance District), property owners in Yosemite West, and the general public is scheduled for Feb. 5, 2013.

Conclusions

The property owners of Yosemite West have been poorly served by the County. The Public Works Director acknowledges that maintenance of the facility has been lacking, and clearly the design of the \$3-4 million rebuild was deeply flawed. The fact that the subdivision is far from the town of Mariposa and has a large transient occupancy may make it easy to ignore. However, it should also be noted that the large transient occupancy does lead to a very large amount of annual Transient Occupancy Tax (TOT) and Business Improvement District Assessment (BID) revenue flowing to the County. For the fiscal year July 2011 to June 2012 the total was \$679,549.19. So far in the current fiscal year \$450,803.44 has been collected.

Any notion that Yosemite West is a net drain on County resources should surely be put to rest by these figures. It is also relevant that should the County fail to right all that is wrong with the Waste Water Treatment Plant, the state could certainly impose severe limits on the use of the sewage system in Yosemite West. This would surely have a significant effect on TOT revenue coming to the County from Yosemite West.

Looking forward, what are the property owners in Yosemite West to do? One possibility raised in the December 13, 2012 Yosemite West Maintenance District Advisory Committee meeting with County officials would be to sue the engineering firm Psomas that produced the faulty design. However, it was quickly pointed out that their defense might be that the County reviewed and signed off on that design and then failed to adequately maintain the plant.

A second possibility might be that the Yosemite West property owners sue the County for providing them with such a faulty product and then failing to maintain it. Yet this would essentially require the five individuals who are the directors of Yosemite West to sue the

same five individuals who are the County Board of Supervisors. It simply won't happen. However, were it to happen or were a group of Yosemite West property owners to file a class action suit against the County for negligence, a court would have to rule on the degree to which the County is financially responsible for righting what is now so terribly wrong. Obviously it would be preferable to avoid such costly proceedings and arrive at a just financial resolution through fair, objective analysis such as a court might provide.

For better or for worse, the property owners of Yosemite West appear to be wed without alternative to a County that has consistently failed them on this and an array of other matters (the current absence of safe drinking water being high on the list). To restate the important central fact of the relationship, it is the County's responsibility to maintain the water, fire hydrants, sewage system and roads of Yosemite West, and all in are apparently serious disrepair at present. To fix the most pressing problem, the sewage system, in the short window before the snow flies in the autumn will require an extraordinary effort by the County. Those repairs must be designed, approved, financed and fully implemented in just ten months.

Can this be done? We certainly hope so. The remarkable speed with which the Pizza Factory rebuild has been approved and implemented alerts us to the County's ability to move quickly when it confronts a crisis. It is the opinion of this Jury that the problems with the Yosemite West Waste Water Treatment Facility, though so different in nature, represent a crisis demanding an equally dedicated response by the County. The Feb. 5 meeting is ideally scheduled as a starting point for this decisive action.

Recommendations

1. That the County Board of Supervisors makes it a top priority to see this project to a timely completion. To do so would involve establishing a realistic schedule for each step in the process and instructing all the various county agencies involved in the process to make every effort to expedite matters.
2. That the County immediately address the question of its share of the responsibility for the earlier failed \$3-4 million renovation of the facility and allocate proportionate funds from the County General Fund to offset the cost of the forthcoming repairs.
3. That as soon as the cost of the next round of repairs is known, procedures be set in motion to raise from Yosemite West that portion of the costs not being born by the County General Fund.