

Los Osos CSD Memo Shows Treatment Facility Relocation Would Have Saved As Much As \$6.2 Million

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The Los Osos Community Services District could have saved as much as \$6.2 million if a wastewater treatment facility currently proposed to be built near the center of town would have been moved to a site outside of town last June, according to a LOCSD memo recently acquired by *SewerWatch*.

Furthermore, according to the June 2004 memo, had the CSD board acted on the memo at the time of its writing, the contentious \$151-million project could be near completion today without the controversial downtown (Tri-W) location in the plan and at a potential savings of multi-millions of dollars.

However, faced with the decision, at almost the exact date of the memo, to relocate the facility away from the controversial downtown location at a savings of as much as \$6.2 million, according to CSD figures and other sources, or "reincorporate" a set of costly park amenities that are adding millions of dollars to the project, the LOCSD chose to reincorporate the park -- a decision that locked in the downtown location.

According to the LOCSD and the California Coastal Commission, other site alternatives to Tri-W were dismissed by the CSD because the "location of the other sites did not provide an opportunity to create a community amenity," and "other alternatives (to the Tri-W site) were rejected on the basis that they did not accomplish project objectives for centrally located community amenities."

The memo, *MWH Memo comparing costs of TriW with Andre*, details a cost comparison between locating the treatment facility at the Tri-W site and a "hypothetical property equivalent to the Andre site" about two miles east of Los Osos, off Los Osos Valley Road.

The memo concludes, "There does not appear to be any economic incentive to relocate the WWTF from the Tri-W site to the Andre site."

But that conclusion came when the project's amenities only included a dog park and a play field at an estimated cost of \$160,000, according to the memo. Yet, in June 2004, the LOCSD voted to reincorporate several other park amenities into the plan including a 15-space public

parking lot and drop off area, an amphitheater, community gardens, restroom, tot-lot, and picnic areas. The cost of those amenities, recently estimated by a LOCS D engineer at \$2.1 million, was not included in the memo's cost comparison.

Moreover, according to local park maintenance professionals contacted by *SewerWatch*, the operation and maintenance (O & M) of the park facilities could add another \$3 million to the project over the next 20 years (the time frame for O & M costs in the memo). [Note: *SewerWatch* was forced to use outside sources for an annual O & M cost estimate for the amenities because the LOCS D has yet to declare its own estimate.]

According to the memo, "The cost comparison shows that under the best case scenario, the relocation of the WWTF to the Andre site may save approximately \$1,100,000, but under the worst case scenario may add approximately \$4,300,000."

But when that cost comparison is updated to reflect the \$2.1 million cost of the additional public amenities, and the estimated \$150,000 annual cost for 20 years (\$3 million) for the operation and maintenance of those amenities, the best case scenario for relocating the facility adjusts to \$6.2 million in savings, and the worse case scenario of relocating the facility adjusts to a savings of \$800,000, according to CSD figures and other sources. Additionally, the development permit for the project says the amenities must be maintained "in perpetuity."

More questions about the reasons for siting the wastewater treatment facility at Tri-W arise in the memo. For example, according to the memo, the combined total annual energy cost added to the project to pump effluent about two miles out of town is about \$20,000 or \$400,000 over 20 years. But, according to a project proponent's web site (savethedream.info), the number one "primary benefit of the Tri-W (downtown) site" is, "It is centrally located and therefore minimizes pumping requirements and thus minimizes energy cost." The cost of the amenities is estimated at \$2.1, according to the LOCS D.

Interestingly, the memo also shows that if the decision were made today to move the facility, potentially multi-millions of dollars could still be saved, despite cost escalation associated with the delays like inflation, and the delay added to the completion of the project would be "2-3 years." However, that time frame is further reduced when unresolved issues of the current project are considered, like a September recall vote and lack of permits for heavy equipment staging areas; just two of many examples.

According to sources close to the project, delays associated with the unresolved issues could add several months, if not more, to the current project's completion date. Therefore any added construction delays due to the relocation of the treatment facility could be reduced further, to potentially under two years, according to LOCS D figures and other sources.

Community Value?

To complicate matters for the CSD, information on *why* there is a park in the project to begin with is not forthcoming. When asked in a recent e-mail from *SewerWatch* what the rationale was for keeping the park in the sewer project following several costly design changes, CSD Vice-President, and project supporter, Gordon Hensley replied, "Frankly I do not have an answer - but I think you are correct, that IS the core issue."

Although information on the rationale for including a park in the project is seemingly non-existent, strong and ample evidence exists that Los Osos taxpayers, during the design stage of the sewer project, did not desire a park anywhere in Los Osos, let alone at a wastewater treatment site.

For example, in 1997, Los Osos voters defeated two ballot measures that would have added public recreation programs and facilities in Los Osos. One of those failed measures, E-97, would have added \$10 a year to a single-family's yearly property tax for "recreational services." The other, D-97, would have added \$40 a year for a public swimming pool. News reports at the time say the measures failed because of voter fear over the high cost of the sewer project.

More evidence of the lack of community support for a park at the treatment facility comes from a LOCSO public opinion study commissioned in 2001 to gauge support for the project. The \$28,000 study titled *Los Osos Community Services District Wastewater Survey*, asked a sample of Los Osos property owners several questions about the project. The first question in the study was:

What is the most important issue that you would like to see local governments in the Los Osos area do something about?

From a list of answers, respondents answered:

Open space/park protections -- 1%

Wastewater treatment/septic tanks -- 64%

Another question from that same study asks:

No matter which way you might be leaning on the wastewater treatment vote, of the statements I just read which one stands out as the best reason why someone should vote FOR this measure?

From a list of answers, respondents answered:

Will create park -- 7%

However, despite extremely weak community support for the park in the project, the initial LOCSO Board, seemingly inexplicably, identified a "strongly held community value" that the wastewater treatment facility also be a "recreational asset," and made the decision that "centrally located community amenities" be a "project objective."

Quotes from the project's report regarding alternative treatment facility sites include:

"The size and location of the other sites did not provide an opportunity to create a community amenity. The sites on the outskirts of town, could not deliver a community use area that was readily accessible to the majority of residents..."

and,

"(The Andre site) is 1.5 miles from the edge of the community and would not be able to provide the community with a readily accessible recreational area..."

One year after the publication of the LOCSD opinion survey that showed little support for the inclusion of a park in the plan, a July 24, 2002 California Coastal Commission staff report says, "The Los Osos CSD has evaluated numerous project alternatives and determined that construction of a treatment facility and public park on the Tri-W site would best meet the project's and the community's needs."

Another California Coastal Commission staff report dated, July 29, 2004, says, "... other alternatives (to the Tri-W site) were rejected on the basis that they did not accomplish project objectives for centrally located community amenities."

On June 21, *SewerWatch* sent LOCSD General Manager, Bruce Buel an e-mail containing the following two questions:

1) What would be the rationale for siting the facility at Tri-W if the "project objective" of "centrally located amenities" was not in the project?

2) Why are "centrally located amenities" a "project objective?"

Buel has yet to reply.

MWH Memo comparing costs of TriW with Andre was drafted in response to a California Coastal Commission request to the CSD to "provide a more detailed analysis of the feasibility of locating the treatment plant at the Andre site." According to a May 27, 2004, letter to the CSD, the Coastal Commission requested the analysis because the project's *Environmental Impact Report* identified the Andre site as "the environmentally preferred site" and the Commission was seeking more information on "why it wasn't selected."

A ground breaking "ceremony" was held at the Tri-W site yesterday.

Ron Crawford operates the blog sewerwatch.blogspot.com

EXHIBIT 3C

MWH Memo comparing costs of TriW with Andre

Responses to May 27, 2004 CCC Letter

3. Siting Alternatives

Introduction

The California Coastal Commission letter of May 21, 2004 has requested that the District "... provide a more detailed analysis of the feasibility of locating the treatment plant at the Andre site." The design of the Los Osos wastewater treatment facility (WWTF) at the Tri-W site has been completed. The cost comparison of the Tri-W site and the Andre site was prepared by determining the incremental cost differences from the estimated construction cost developed for the WWTF as currently designed at the Tri-W site.

The parcel of property referred to as the Andre site adjacent to the cemetery is likely not available as a treatment plant site because of an existing PG&E overhead high-voltage electrical transmission main. For the purposes of this evaluation, a hypothetical property equivalent to the Andre site will be assumed and referred to as the Andre site.

Note that the cost comparison utilizes a 100% design for the Tri-W site and a conceptual design for the hypothetical Andre site. The accuracy of the Tri-W costs is significantly greater than the Andre costs. A contingency has been added to the Andre costs to address unforeseen conditions that may be present at the Andre site and would not be identified until further investigation and detailed design was advanced. Even with the addition of a contingency allowance, the potential cost variability for the Andre site will be higher than the Tri-W site at this time.

Collection System

The evaluation of an alternative treatment plant site will include changes to the collection system that is currently designed. The current collection system consists of sewer mains, pump stations, and force mains that collect and convey all wastewater from the service area. Wastewater flow is delivered to the Tri-W site by the Lupine Pump Station (western service area), the West Paso Pump Station (northeastern service area), and by gravity sewer main (southwestern service area). The wastewater that arrives by gravity sewer to the Tri-W site is lifted to the WWTF headworks by an on-site influent pump station.

The existing collection system design would remain unchanged except that a new Tri-W Pump Station would be installed to receive the total wastewater flow from the three sources indicated above. The new Tri-W Pump Station would deliver the total wastewater to the Andre site. The pump station would be sized to convey all the wastewater generated by the service area to the alternative treatment site.

The new Tri-W Pump Station would be a submersible pump station including a standby power facility similar to the submersible pump stations elsewhere in the collection system. An odor control system may also be required for the Tri-W Pump Station because it will handle the total flow of the service area and due to the sensitivity of the Tri-W location. The force main from the Tri-W site to the Andre site is estimated to be 14-inch diameter and 12,000 linear feet (lf) in length. The crossing of Los Osos Creek will require special attention with microtunneling because of wetlands consideration.

The estimated construction cost for the collection system improvements is presented in the following table. A range of cost is presented for the odor control system because of the uncertainty of whether or not an odor control system would be needed. A range of cost is provided as a contingency allowance because the development of an estimated construction cost based on a conceptual design is subject to additional costs that are unforeseen at this time.

Description	Cost Addition
New Tri-W Pump Station	\$250,000
New Tri-W Standby Power Facility	\$400,000
Elimination of WWTF Influent PS	(\$80,000)
Tri-W PS Odor Control	\$0 - \$60,000
Tri-W Force Main (14-inch dia - 12,000 lf)	\$1,260,000
Los Osos Creek Crossing (500 lf microtunneling)	\$300,000
Subtotal	\$2,130,000 - \$2,190,000
Contractor O&P @ 15%	\$320,000 - \$330,000
Subtotal	\$2,450,000 - \$2,520,000
Contingency (5% to 20%)	\$120,000 - \$500,000
Total	\$2,600,000 - \$3,000,000

The addition of new Tri-W PS will increase the operation and maintenance cost of the collection system. The estimated annual operation and maintenance (O&M) costs for the Tri-W PS are summarized in the following table.

Description	Amount
Annual energy cost	\$16,900/yr
Annual labor	\$5,200/yr
Annual maintenance	\$4,000/yr
Annual O&M cost	\$26,100/yr
Present worth - 6.625% @ 20 years	\$280,000

Wastewater Treatment Facility

The underlying assumption for this evaluation is that the current process design of the Los Osos Wastewater Treatment Facility (WWTF) at the Tri-W site will remain unchanged. That is, the basic treatment processes and equipment selection will remain the same. The building structures that house the processes and equipment – Residuals Building, Treatment Building, and Operations Building – will also be the same except where noted. Items such as the site layout, the architectural treatment, and degree of odor control would be subject to change. Also, the Tri-W site includes features that would not likely be provided at the Andre site or would be modified.

The estimated incremental construction cost additions or savings for the WWTF at the Andre site is presented in the following table. A range of cost will be identified where appropriate when uncertainty about the degree or type of feature exists. For example, a range of cost is presented for landscaping, berming, exterior architectural finish, and odor control because of the uncertainty of what degree of design would be provided. Until detailed design that incorporates input from neighboring property owners and the community is completed, the degree of design cannot be established. A range of cost is provided as a contingency allowance for elements at the Andre site because the development of an estimated construction cost based on a conceptual design is subject to additional costs that are unforeseen at this time.

Description	Cost Addition	Cost Savings
Sitework		
Tri-W tree removal		\$30,000
Tri-W Ravenna Avenue extension		\$120,000
Andre access road	\$60,000	
Off-Site drainage system		\$510,000
Tri-W bike paths		\$100,000
Tri-W dog park		\$60,000
Tri-W site landscaping		\$860,000
Andre site landscaping	\$200,000 - \$500,000	
Tri-W berming and screen walls		\$450,000
Andre berming	\$100,000 - \$250,000	
Tri-W fencing		\$200,000
Andre fencing	\$100,000	
Tri-W retaining wall		\$210,000

Residuals Building		
Tri-W exterior architectural finish		\$70,000
Andre exterior architectural finish	\$35,000 - \$70,000	
Treatment Building		
Tri-W exterior architectural finish		\$150,000
Andre exterior architectural finish	\$75,000 - \$150,000	
Tri-W buried aeration basin		\$200,000
Andre open or covered acration basin	\$0 - \$130,000	
Operations Building		
Tri-W exterior architectural finish		\$60,000
Andre exterior architectural finish	\$30,000 - \$60,000	
Odor Control		
Tri-W biofilters		\$580,000
Andre biofilters	\$200,000 - \$580,000	
Subtotal	\$800,000 - \$1,900,000	\$3,600,000
Contractor O&P @ 15%	\$120,000 - \$290,000	\$540,000
Subtotal	\$920,000 - \$2,190,000	\$4,140,000
Contingency (5% to 20%)	\$50,000 - \$440,000	NA
Total	\$970,000 - \$2,630,00	\$4,140,000
Cost Savings Differential	\$1,500,000 - \$3,200,000	

Effluent Disposal

The evaluation of an alternative treatment plant site will include changes to the effluent disposal system that is currently designed. The current effluent disposal system consists of disposal mains and subsurface percolation sites. The location of the WWTF at the Andre site would not require any change to the disposal mains and subsurface percolation sites that are currently designed. However, the Andre site would require the addition of a disposal main from the Andre

site to the Tri-W site and a booster pump station at the Tri-W site to convey treated effluent to the Broderson effluent disposal site.

The estimated construction cost for the effluent disposal improvements is presented in the following table. A range of cost is provided as a contingency allowance because the development of an estimated construction cost based on a conceptual design is subject to additional costs that are unforeseen at this time.

Description	Cost Addition
Andre Disposal Main (14-inch dia - 12,000 lf)	\$1,260,000
Los Osos Creek Crossing	\$300,000
Effluent Booster Pump Station	\$100,000
Subtotal	\$1,660,000
Contractor O&P @ 15%	\$250,000
Subtotal	\$1,910,000
Contingency (5% to 20%)	\$100,000 - \$380,000
Total	\$2,000,000 - \$2,300,000

The addition of new effluent booster PS will increase the operation and maintenance cost of the effluent disposal system. The estimated annual operation and maintenance (O&M) costs for the Tri-W PS are summarized in the following table.

Description	Amount
Annual energy cost	\$2,900/yr
Annual labor	\$1,300/yr
Annual maintenance	\$1,200/yr
Annual O&M cost	\$5,400/yr
Present worth - 6.625% @ 20 years	\$60,000

Wastewater Project

The cost additions and cost savings developed above are summarized in the table below. Property acquisition cost additions and savings, cost additions for engineering, environmental, and legal support services, and District administrative overhead are also included.

The property acquisition cost for the hypothetical Andre site is based on a minimum 5-acre site for the WWTF. Agricultural property without improvements (i.e., residence) is valued at a minimum of \$20,000 per acre. Agricultural property with a residence may be \$250,000 per acre or higher. In addition, it may be necessary to purchase a property larger than 5 acres depending

upon parcel size. Consequently, a range of property value from \$100,000 to \$1,400,000 was assigned for the hypothetical Andre site.

The Tri-W property was purchased by the LOCSD for \$3,000,000 in Y2001. If the treatment facility site were moved to the Andre site, approximately 1 acre of the 11 acre parcel would need to be retained by the LOCSD for the Palisades Harvest Well, the new Tri-W Pump Station, and the new effluent booster pump station. The remainder of the property that is zoned for commercial use could be sold and the proceeds credited to the Project. The value of the property is estimated to range from \$3,000,000 to \$3,500,000.

The Broderson parcel (80 acres) was originally purchased as an effluent disposal site and for habitat mitigation. If the treatment facility is moved to the Andre site and the hypothetical site does not require habitat mitigation, then the upper half (southern half) could be potentially resold because it would not be needed for habitat mitigation of the total Tri-W site. The Broderson property was purchased in Y2001 for \$4,650,000 with the assistance of a \$2,000,000 State grant. The proceeds of any resale would be complicated by the disposition of the \$2,000,000 State grant. The value of the upper half of the Broderson property is estimated to range from \$1,000,000 to \$1,500,000. Note that the upper half of this property is steep and contains endangered species habitat. These factors limit the resale value of that portion of the Broderson property.

The location of the treatment facility at the Andre site would require a raw wastewater force main and treated effluent pipeline routed between the Tri-W site and the Andre site. The pipeline crossing of Los Osos Creek would require special consideration with microtunneling to avoid the disruption of wetlands. An easement would be required in this area because the existing right-of-way for Los Osos Valley Road is not wide enough to accommodate a microtunneling easement on either side of the Los Osos Creek bridge. The estimated cost of a Los Osos Creek easement is \$30,000.

The relocation of the WWTF to the Andre site would require the design of the new Tri-W pump station with standby power facility and force main; civil sitework, landscaping, architectural treatment, odor control, and other portions of the WWTF; and new disposal main and booster pump station for treated effluent. The design and redesign of these facilities will require the equivalent of the production of 35 new drawings for the collection system, 90 drawings for the WWTF, and 25 drawings for the effluent disposal system for a total of 150 drawings. The estimated cost for the production of these drawings will range from \$4000 to \$5000. If the average cost is \$4500 per drawing, the drawing cost is estimated to be approximately \$680,000. In addition, budget for project management, surveying, and geotechnical support services will be approximately \$230,000. The estimated redesign cost would be approximately \$910,000.

The estimated cost to prepare a supplemental EIR for the relocated treatment facility is estimated to be approximately \$100,000. An allowance for potential litigation is included. Litigation may not occur, but given the litigious history of the project an allowance of up to \$80,000 has been included. The additional costs associated with project delay and relocation of the WWTF to an alternative site will require the sale of additional bonds. The refinancing charges are estimated to be approximately \$100,000.

As with all aspects of providing services for wastewater, water, fire and emergency, solid waste, and stormwater, the LOCSD assigns a portion of the overhead incurred by District operation proportionally to each of the services provided. The overhead includes wages, direct costs, and

administration. The portion of overhead currently assigned to wastewater is approximately \$500,000 per year as determined by the recent LOCSD cash flow analysis. If the treatment facility is relocated to the Andre site, the project will be delayed for an estimated period of 2 to 3 years for property and easement acquisition, redesign, supplemental EIR, refinancing, and coastal development permit activities. The overhead cost borne by the LOCSD and assigned to wastewater services during this period is estimated to be approximately \$1,000,000 to \$1,500,000.

Description	Cost Addition	Cost Savings
Collection system construction cost	\$2,600,000 - \$3,000,000	
Collection system O&M present worth	\$280,000	
WWTF construction cost		\$1,500,000 - \$3,200,000
Effluent disposal construction cost	\$2,000,000 - \$2,300,000	
Effluent disposal O&M present worth	\$60,000	
Estimated Capital Cost Subtotal	\$4,900,000 - \$5,600,000	\$1,500,000 - \$3,200,000
Andre site acquisition	\$100,000 - \$1,400,000	
Potential Tri-W property credit		\$3,000,000 - \$3,500,000
Potential Broderson property credit		\$1,000,000 - \$1,500,000
Los Osos Creek crossing easement	\$30,000	
Redesign cost	\$910,000	
Supplemental EIR	\$100,000	
Allowance for potential litigation	\$0 - \$80,000	
Refinancing	\$100,000	
LOCSD administrative overhead	\$1,000,000 - \$1,500,000	
Total	\$7,100,000 - \$9,700,00	\$5,500,000 - \$8,200,000
Cost Differential	(\$4,200,000) - \$1,100,000	

The cost comparison shows that under the best case scenario, the relocation of the WWTF to the Andre site may save approximately \$1,100,000, but under the worst case scenario may add approximately \$4,200,000. There does not appear to be any economic incentive to relocate the WWTF from the Tri-W site to the Andre site.

The current interruption of the project schedule is estimated to delay project construction by approximately 6 months if the Tri-W site is preserved. If the treatment facility is relocated to the Andre site, the project will be delayed for an estimated period of 2 to 3 years for property and easement acquisition, redesign, supplemental EIR, refinancing, and coastal development permit activities. The construction cost escalation experienced since March 2001 (Project Report approval) to December 2003 has averaged 3% per year. Since January 2004 public works construction costs have increased at an equivalent annual rate closer to 8% primarily due to increases in building materials such as steel and plywood. Since it is not clear at this time if this higher escalation rate will be maintained, the escalation rate prior to Y2004 of 3% has been used, but the actual escalation rate may be higher. The escalation rate was applied to the total estimated construction cost of \$67,000,000 that was established on the assumption of construction startup in July 2004. The estimated escalation for the Tri-W alternative is approximately \$1,000,000 and the for the Andre alternative ranges from approximately \$4,000,000 to \$6,000,000. The net difference in escalation ranges from approximately \$3,000,000 to \$5,000,000.

Non-Economic Considerations

Two non-economic considerations are relevant to the site alternative comparison. A brief discussion of each consideration is presented as follows:

- **Tri-W Amenities.** One of the benefits of the Tri-W site is that the current design provides two community amenities – dog park and multi-use field. A dog park has been provided in the space adjacent to the buried aeration basin. A 2-acre percolation field for off-site drainage would be turfed and irrigated with reclaimed water and would be used as a multi-use field when no storm events occurred. The location of the alternative WWTF site would not lend itself to such amenities and no budget has been allocated for amenities for the hypothetical Andre site.
- **Broderson Green Belt.** One of the benefits of the purchase of the Broderson property for habitat mitigation was the integration with the community's long-term plans to develop a green belt around the perimeter of the community. If the upper half of the property were resold to help offset project costs, the use of this property for habitat mitigation and to enhance the green belt corridor would likely be lost.