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COUNTY
WATER
DISTRICT**

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**Forest Meadows Town Hall Meeting
Held June 2, 2004**

The following reflect the general listing of probably 100 questions asked that evening. We have tried to consolidate them into about two dozen general categories. The next meeting is scheduled for July 19, 2004, at 7:00 p.m. as a follow up and to provide more detail of the District's immediate plans for wastewater service. Should you have questions, please feel free to contact Steve Hutchings, District Engineer, at (209) 754-3543, ext 46.

**1. Why is the lake green, and why does it smell?
Who is responsible for this lake?**

The golf course owner owns and is responsible for the maintenance and operation of the lake. CCWD is responsible to deliver to the lake recycled water that is compliant with State Standards. There are many options available to the owner to control alga growth and odors.

Alga growth creates the colors seen in ponds. Different strains of algae create different colors. CCWD's recycled water does not add algae to the pond, but it does contain nutrients that would support alga growth.

It is CCWD's opinion that the odor noticed on the 8th tee is not from the storage pond. Instead, it comes from the stagnant ponds that are part of the bypass system. They occasionally "burp," or turn over, which releases odors.

**2. Why were the drinking fountains on the Golf Course shut down?
Can you make them come back?**

The office of Drinking Water in the State Department of Health Services (DHS) regulates the use of recycled water. DHS prohibits the use of drinking fountains on

golf courses that may be covered by spray or aerosols from irrigating with recycled water.

Most golf courses solve this problem by providing portable drinking fountains or water coolers each day when no irrigation is in operation.

3. Clarify the Options 1, 2a, 2b, and 3. What about Option 2c, the Stanislaus?

Option 1 – Option 1 is to construct a sewer pipeline from Forest Meadows to Murphys. All sewage from new connections and some of the existing connections would flow to the Murphys Sanitary District’s Treatment Plant. Costs for this option would include the pipeline, improvements, and expansion to the Murphys treatment plant and other Murphys facilities that would be impacted.

*Option 2 – There are three variations for Option 2--a, b, and c. The Draft Plan only includes 2a and 2b. Option 2c came about as a review comment from the Northern California Power Agency (NCPA) after the Draft Plan had been presented to the CCWD Board. Option 2 is treating all sewage to “Unrestricted Use” Standards (recycled water) and discharge it to one of the nearby creeks during the wet season. This is referred to as “seasonal discharge.” The nearby creeks that are identified in the Plan are Angels Creek (Option 2a) and San Domingo Creek (Option 2b). **Option 2a** will not receive further consideration because Angels Creek is a drinking water source.*

***Option 2b** is considered a viable project, and costs were generated to include expansion to full buildout of the Treatment Plant and a pipeline from Forest Meadows to San Domingo Creek.*

***Option 2c** is discharging the recycled water to CCWD’s hydroelectric facility. East of Forest Meadows is a tunnel that conveys a large amount of water for power generation at the Collierville Powerhouse which in turn discharges to the Stanislaus. River access to the tunnel is provided by a vertical shaft located on CCWD property adjacent to the eastern boundary of Forest Meadows Unit 5. This option is the most desirable for its location and use of an existing District facility. The costs for this option have not been generated yet but are expected to be similar to Option 2b.*

Option 3 - Option 3 is to continue with the current practice of treating the sewage, storing, and disposing of the recycled water on land. It is estimated that an additional 135 acres of land is needed for disposal (spray irrigation). The challenge with this option is to locate suitable land. Due to the terrain and geology of the area, it may require 200 acres or more to utilize 135 acres. This is the most costly option.

4. Why did regulatory compliance costs go up?

Regulatory cost will continue to increase as jurisdictional agencies interpret and enforce clean water laws. There are several compliance conditions that the District

has been ordered to do that are new and impact existing facilities and available capacity:

- 1) Storage reservoirs for recycled water must have a 2-foot freeboard below the spillway. This criterion essentially decreased available storage by 10 acre feet that was already paid for and planned to be used for existing connections.
- 2) Storage reservoirs must have sufficient capacity to accommodate the accumulation of runoff from a 100-year storm season. Previously, a 25-year rainfall season was accounted for to be stored, which equated to 60 inches. The 100-year rainfall is 65 inches. This resulted in a loss of storage that was already paid for and planned to be used for existing connections.
- 3) The existing treatment process must provide raw sewage emergency storage and disposal capacity for 20 days or provide 24 hours of storage if duplicate equipment is installed. The District elected to install duplicate equipment at the treatment plant and utilize an existing pond on site for the 24-hour storage.
- 4) Previous irrigation rates of recycled water on the golf course were based on historic usage. Now, the irrigation rate that is allowed to determine capacity is to be approved by the State. The irrigation rate impacts the amount of storage required. An irrigation rate of 60 inches per year was used for previous capacity calculations, and that has been reduced by using State criteria of 36 inches per year.

In addition to the above mandated compliance conditions, the District has revised the standard flow rate per household from 225 gallons per day to 195 gallons per day, which is verified by the recorded flows throughout the District. Previous studies used 150 gallons per day for Forest Meadows due to the seasonal occupancy. The revised flow rate (195 gpd) will be used for all new connections but will be "ramped up" for existing connections over a 20-year period.

The cumulative effect of these compliance conditions reduce the available capacity from that which was originally planned (about 1,250 esfu's) to the current capacity of about 500 esfu's.

**5. What is out of compliance?
What is the timing for bringing this into compliance?**

The compliance items are described in Question 4. The current plan is to design the improvements this year with construction complete by this time next year. Some items may be constructed this year.

It is important to note that the existing facilities were constructed, with the current standards at the time, to have treatment, storage, and disposal capacity for approximately 1,250 esfu's. Now, the rated capacity is 500 esfu's.

6. Can the future people pay part of the regulatory compliance cost?

Why can't the \$15 apply to the future connectors too?

Typically, compliance items are to bring existing facilities to current standards and would be required regardless of growth. For this reason, compliance costs are normally borne by the existing ratepayers. Future connections also pay for compliance as part of expansions to the system and would be included in the connection fee. However, depending on the Option that eventually becomes the solution, some of the compliance costs would be shared. For Option 1, all of the costs for compliance would be the existing customers' responsibilities because all sewage from new connections is directly diverted to Murphys for treatment. For Options 2 and 3, there would be some cost sharing because all sewage will be treated at Forest Meadows and all customers will benefit.

7. Are there any funds in a reserve account to offset the compliance expense for existing customers?

Yes, however, these funds are limited. See Question 15 for the funds available in these accounts. There are reserve accounts for general District use and specific accounts to Forest Meadows. The general District use account monies are allocated at the discretion of the CCWD Board whereas the Forest Meadows accounts are for use only in Forest Meadows. There are two accounts, or funds, set aside for Forest Meadows wastewater--the Sewer Operating Fund and the Sewer Expansion Fund.

8. What is the history of the 2000 expansion project? Why did CCWD miss on the project, such that we have to pay more now?

CCWD began looking at expansion in the mid 1990's before there was much regulatory oversight of storage and disposal facilities. As a result, that effort centered only on the treatment plant; and a permit from the State was issued that allowed a flow rate of 190,000 gallons per day (about 1,250 esfu's based on 150 gpd/ESFU). The cost of the expansion was over \$2,000,000. The sewer expansion funds for Forest Meadows, at the time, were insufficient. So, the District funded the expansion project from the Water Development Fund (known as North Fork Funds).

The ink was not yet dry on our plant expansion project, when new regulations and interpretations were issued by the regulatory community on storage and disposal. That resulted in this new master planning effort, which covers all components of a wastewater system, collection, treatment, storage, and disposal.

This study shows, as was presented recently, that the collection system is okay for many years; that treatment compliance must be done immediately and that treatment must eventually be expanded; that there is an immediate storage shortfall and that there will soon be a disposal shortfall.

Another reason is that the previous study assumed less flow than is being assumed now: 150 gpd / ESFU vs. 195 / ESFU. That means that all components need to be sized to handle the increased buildout expected flow.

9. Why hasn't CCWD increased its costs annually to address the regulatory compliance costs and the replacement costs?

Increasing monthly rates to keep up compliance and replacement costs has been a subject debated by the CCWD Board on many occasions. The current practice of the CCWD Board is to not have an annual adjustment.

10. What does the current connection fee of \$5,500 buy?

The connection fee buys facilities for expanding capacity. The current funds available for budget year 04/05 are \$75,800. The District already has budgeted \$200,000 from the expansion fund for the immediate improvements.

11. What were connection fees in the past?

Thirty years ago the fees were \$350 and have been periodically raised to the current \$5,500.

12. Can there be a subsidy between the current and future users?

By State law one customer cannot subsidize one or the other.

13. Will a moratorium be necessary?

It is CCWD staff's opinion that, given the conservative nature with the flow projections, new connections can continue to be allowed at the rate of 20 per year for a period of two years. After two years, if there has been no progress with one of the alternatives, a moratorium may be necessary.

14. Why would current customers have to pay more in monthly rates than new users? It doesn't seem fair.

The basic monthly rate is the same for all customers, current and new, and pays for the day-to-day operations. The \$15 per month surcharge is to restore capacity that was eliminated by changing regulations. The only mechanism for the District to collect revenue for loss of capacity is by a surcharge.

For new customers, the cost for regulatory compliance is built into the connection fees.

15. What are the balances in the various accounts for Forest Meadows? How did you spend the revenue generated by the Asset Replacement Rate that was imposed a couple of years ago?

There are two basic accounts for Forest Meadows: Operating Fund and Expansion Fund. The revenue for the Operating Fund is monthly rates; the revenue for the Expansion Fund is connection fees. The balances, as projected through the budget year of 04/05, are:

| | |
|-----------------------|-------------------|
| <i>Operating Fund</i> | <i>(\$51,500)</i> |
| <i>Expansion Fund</i> | <i>\$123,000</i> |

The Operating Funds are used for projects that improve and replace existing facilities. The Expansion Funds are for constructing new facilities for new capacity.

The Asset Replacement Rate (ARR) (\$4.25/mo. for sewer) generates a revenue stream of about \$26,000 per year. The ARR was adopted in the 2001/2002 fiscal year and has been expended on a yearly basis for replacement of items such as rehabilitation of a sewer lift station, provide back-up software for the treatment plants' UV system, and other equipment.

16. How does the financial picture look if no new services are allowed to connect? If infill of existing lots that are vacant is allowed? If new subdivisions in the area are allowed?

If no new services are allowed as of today, the District will need to construct the State compliance improvements at a cost of \$812,000. As indicated above (Question 15), the Operating Funds should fund this work but are inadequate. Also, even without new connections, there needs to be an expansion of capacity as the flow per unit increases in the years to come (current 110 gpd to 195 gpd). This expansion cost component is estimated at \$972,000, assuming that the District will continue with land disposal. The funds available for expansion are \$123,000.

The methodology of the Master Plan did not differentiate between infill lots and new subdivision lots, as far as the financial picture, because Forest Meadows is at capacity; and any new connection will require an expansion. Also, with the number of infill lots about equal to the new subdivision lots, one is not weighted more than the other for cost allocation.

17. What does the term "Unrestricted Use" recycled water mean?

The levels of treated wastewater are specified and regulated by the Office of Drinking Water in the State Department of Health Services. The standards are

specified in Title 22 of the California Code of Regulations. There are various levels of treatment of wastewater resulting in various qualities of recycled water. The highest treatment level resulting in the highest quality of recycled water is called disinfected tertiary (filtered and disinfected) or unrestricted use water. All terms are synonymous.

The District creates this high quality recycled water at Forest Meadows and at LaContenta for disposal on golf courses. It also has the ability to create that quality at its Copper Cove facility.

Some other uses of unrestricted use water can be irrigation of schoolyards and parks, vineyards, snowmaking, and recreational ponds with body contact (swimming).

18. An existing customer wrote the following question: An existing household at Forest Meadows generates about 110 gpd. Why are you shifting to 195 gpd? Won't water conservation keep us at a much lower number?

We agree that water use will decline in the years to come. There is a link between water use and wastewater flow. The general trend is that as water is conserved and plumbing fixtures become more efficient, less wastewater flow is generated. However, the 110 gpd/esfu is the actual average flow that is generated at Forest Meadows and is calculated by dividing the average flow over the 5 driest months of the year by the total number of connections. Forest Meadows has shown an increasing trend of this flow rate from 87 gpd/esfu in 1991 to the current 110 gpd/esfu. CCWD staff believe this trend will continue as more part-time residential units are converted to full-time status. The wastewater flow of 195 gpd/esfu is a standard used by all of the District's enterprise districts and serves as a tool for projecting flows and planning for future facilities. The 195 gpd/esfu provides a buffer to allow building to continue as CCWD funds, plans, and constructs the next phase of expansion. CCWD recognizes that the increase of the unit flow will occur over a long period of time and has planned for that in the master plan.

19. An existing customer wrote: The present usage of water on the golf course is very low, and much more water could be used. I would believe that the figure could be at least 50% more, to make the fairways and greens more lush.

The usage of recycled water for irrigation on the Golf Course is controlled by the owner of the Golf Course. The irrigation use projected in the Master Plan for the Golf Course may not necessarily reflect the actual usage. Excessive irrigation with recycled water that results in runoff from the Course is prohibited by the State. For this reason, the irrigation projections must be based on an application rate that is reasonable and acceptable by the State. In the Master Plan, on Page 26, the appropriate irrigation rate to use is discussed and evaluated. For compliance purposes, the projections for irrigation are based on applying 35.9 inches of water per acre per year. This application rate is acceptable to the State. However, the

Golf Course records indicate that the actual usage has ranged from 40 to 60 inches per acre per year.

- 20. An existing customer wrote: Regarding Long Term Alternatives for water storage, build a Dam below the present Dam in the existing canyon. This is well suited for water storage and no planned development is foreseen. This property is owned by the golf course developer and should be discussed with him.**

Several sites have been evaluated for long-term storage. The site that is the most attractive for the District is adjacent to the treatment plant. This property is also owned by Mr. Papais, and he has indicated that this property would be available for a dam. In 2001 the District performed preliminary geotechnical work and a conceptual layout on the property.

- 21. An existing customer wrote: I see no mention of the existing leach fields being used.**

The leach fields are not included in the day-to-day disposal of wastewater. While the leach fields were the only disposal option for the first 20 years of the subdivision, the District realized that they could not be a long-term disposal option. A study commissioned by the District confirmed that by showing only about 20,000 gpd could be reliably disposed of in the field.

Because the low disposal rate represented only 10% of buildout flow, the District did not consider that option as a viable long-term disposal option in its master planning effort. However, the District continues to use the field as part of its short-term emergency disposal strategy.

- 22. An existing customer wrote: Figure 1, the map of Forest Meadows, is misleading, as it does not represent the true areas as shown.**

Figure 1 will be revised to represent the planning area to be served. Unit 6 is no longer included in the service area.

- 23. An existing customer wrote: The report depicts the total projected EFSU at build out to be 1400, 1600, and 1800. Shouldn't this be standardized?**

On Page 7 of the Report, a breakdown of the number of ESFU's is shown on Table 1. The number of ESFU's that are planned to be served is 1,400.

- 24. Rainfall measurements can be provided for Forest Meadows from 1990 thru 2004.**

Rainfall data used for the Master Plan requires that the monthly precipitation values during a 100-year storm season be used. These values come from the Murphys weather station for the year of 1995.

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