



CITY OF CLOVIS MEMORANDUM

TO: Mayor and City Council Members

FROM: Planning and Development Services

DATE: September 2, 2003

SUBJECT: Consider - Status Report on the Sewage Treatment – Water Reuse Facility and Requesting Direction on Further Analysis for Site Selection and Environment Impact Report.

Recommendation

1. Consider – Status Report on Environment Constraints Analysis/Alternative Site Screening for the Sewage Treatment-Water Reuse Facility.
2. Direct staff to continue further analysis and evaluation on the preferred quarter section candidate sites considering the best available process treatment technology currently available.
3. Direct staff to prepare a Request for Qualifications for a Consultant for the Design/Construction and Operations of the Sewage Treatment-Water Reuse Facility.

Summary

With the expansion of Clovis' sphere of influence and the proposal to develop new urban areas, it will be necessary to construct additional sewer collection and treatment facilities. Because of the historic overdraft of ground water in this area, it is essential that the City utilize best available technology to reclaim the cleaned and treated wastewater for beneficial reuse within the City of Clovis. Properly treated, the reclaimed water can be used without restriction for public open space irrigation, agricultural irrigation, recreation and many commercial/industrial applications. For every gallon of reclaimed water put to beneficial use within the City of Clovis General

Plan Area, there is a corresponding reduction of a gallon of potable water that would otherwise be pumped from groundwater sources or from surface water sources.

The proposed Sewage Treatment-Water Reuse Facility (ST-WRF) is anticipated to ultimately treat about 8.4 MGD of effluent.

The initial step in selecting a suitable site is the identification of appropriate site selection criteria to be utilized in evaluation of potential sites. Since the proposed ST-WRF will be a significant public infrastructure element for decades to come, the City of Clovis has committed to soliciting extensive participation in each facet of the project development.

The issues presented to the Council in this report deal with the application and refinement of the approved (June 3, 2002) Tentative Site Selection Criteria to properties approved (July 22, 2002) located within three quarter section areas and one fifty acre parcel.

Discussion

On June 3, 2002 Clovis City Council approved eleven Tentative Site Selection Criteria to be utilized for the identification of potential sites within the boundaries of the study area. In a subsequent action (July 22, 2002), the Clovis City Council approved three quarter section areas and a fifty-acre property to be analyzed for further study.

At build out, the ST-WRF is anticipated to require about 12 acres to accommodate the treatment facilities. It is the City's goal to construct a plant that will not create odors that leave the plant site. However, as an added precaution, and at the direction of the City Council, on June 3, 2002, a 300-foot landscaped buffer was added to be integrated into the proposed ST-WRF plant. This 300-foot landscaped buffer can be integrated into the design of the ST-WRF in several different ways. The landscaped buffer will provide a visually aesthetic screen between the plant and any adjoining property to further ensure that the plant will be unobtrusive and a good neighbor. Up to 75 acres will be required to provide sufficient space for the plant, the required storm holding ponds, and the landscaped buffer. There are many optional configurations that could be employed depending on the adjoining land use and the type of treatment technology utilized as well as the use of full process enclosure including air scrubbing of the odor producing processes. These issues will be considered during the subsequent phases of this project.

The following are the tasks assigned to Environmental Services Associates and Blair Church and Flynn. A detailed executive summary of the ESA report is presented below:

I. Executive Summary (ESA)

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This tasks' outline provides a detailed method to site a facility based upon performance based criteria. Staff believes this analysis method will provide a much more objective basis for selecting a site. Integrated into these tasks are the fundamental eleven site selection criteria approved by Council. The performance based analysis method will allow specific issues to be identified and constraints and limitations to be established on potential site locations within the boundaries of the study area. These constraints or limitations will remove specific areas from further consideration. The performance based analysis method will give consideration not only to technical issues but constraints imposed from the local geopolitical and environmental concerns.

Alternate Process Treatment Technology

Staff is currently evaluating an activated sludge process, which utilizes oxidation ditches as part of the treatment process. This type of process method while very stable under operations requires a considerable amount of land and process piping between processing equipment. Staff recently toured an activated sludge processing plant utilizing an alternate treatment process. The process type is termed a Sequence Batch Reactor (SBR). The primary difference in the processing of the wastewater is the plant's compact footprint and the computer sophistication required to operate the process. SBR facilities rely heavily upon computer process controls to operate the plant but with the development of and sophistication of process control technologies SBR type facilities are gaining a stronger foothold in area where land is at a premium. Staff is recommending SBR type facilities also be evaluated in the scope of the Siting and Constraints Analysis.

Request for Qualifications

In conjunction with the Siting and Constraints Analysis, staff is recommending a Request for Qualifications (RFQ) be developed and submitted to the industry for qualified candidate firms for the design of the facility. The development of the RFQ will require approximately 30 days to develop and 30 days for responses to be submitted. The development of this RFQ will complete the team needed for the reuse facility's design.

Staff believes contracting with a design consultant during the Siting and Constraints phase of the project will prove invaluable in bringing the facility on line earlier. The traditional design, then bid, and then construct method of project delivery is being evaluated by the City attorney to determine if Clovis can utilize a different method for project delivery. The operations of the facility could also be included as part of the design-bid-build project delivery method. At the time of this staff report, no firm determination has been received for this option.

Reasons for Recommendation

The City of Clovis must take steps to provide for sewage collection and treatment facilities to serve the planned growth areas identified in the 1993 General Plan and approved 2000 Sphere of Influence. Clovis has devoted over twenty months to public outreach to inform the public and to encourage discussions. The proposed work plan by ESA and Blair Church and Flynn will allow the further refinement of the site selection criteria and ultimate selection of up to three potential sites within the three quarter sections and fifty-acre parcel. The City Engineer, with assistance from the Assistant City Manager, will work with engineers from BC&F and ESA to further evaluate the preferred quarter section candidate sites within the approved study area. It will be their goal to identify three specific facility sites and present them to Council in October/November 2003. Following Council's approval of the selection of sites conceptual designs and costs estimates including acquisition and construction costs will be prepared along with the initial phase of a project EIR. Staff is working toward the development of a "purple pipe" reuse water master plan. This master plan will be developed concurrent with the preparation of a project level Environmental Impact Report.

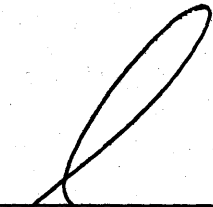
The evaluation of the Environment Constraints Analysis/Alternative Site Screening for the Sewage Treatment-Water Reuse Facility is recommended to be expanded to include alternate activated sludge treatment process technologies. Inclusion of alternate process treatment technologies will allow staff to fully explore all viable options for the type of process to be utilized at the facility. Staff has recently toured a facility utilizing an alternate activated sludge treatment process. This facility is a sequence batch reactor (SBR) activated sludge processing type unit and is recommended to be included within the scope of this evaluation along with evaluation of a "stripper" type process. A stripper process removes the solids from the sewer stream and only processes the remaining liquids. The solids would be conveyed via pipeline to the Regional WWTP for processing.

Development of a RFQ will allow the completion of the project team for the design and construction of a reuse facility. Contracting with a design consultant early in the project will allow for a more timely delivery of the reuse facility.

Steps Following Approval

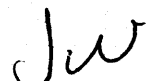
- Staff will continue to work with ESA and BCF with the completion of the Environment Constraints Analysis/Alternative Site Screening for the Sewage Treatment-Water Reuse Facility.
- Staff will expand the evaluation of the Environment Constraints Analysis/Alternative Site Screening for the Sewage Treatment-Water Reuse Facility to include alternate process technologies.
- Staff will prepare a Request for Qualifications for a Consultant for the Design/Construction of the Sewage Treatment-Water Reuse Facility.
- Staff will final the site selection screening analysis phase for the ST-WWF AND SUBMIT FOR Council review and approval at the regularly scheduled November 10, 2003 Council meeting.

Submitted by:



Steven E White, City Engineer

Recommended by:



Jeff Witte, Assistant City Manager