



CITY OF CLOVIS

MEMORANDUM

TO: Mayor and City Council Members

FROM: Planning and Development Services

DATE: December 1, 2003

SUBJECT: Consider Approval – Site Selection Alternatives for Sewage Treatment – Water Reuse Facility. Authorize City Manager to execute contracts for the preparation of an Environmental Impact Report and Design Build and Operate procurement consultant.

Recommendation

1. Consider Approval – Site Selection alternatives for Sewage Treatment-Water Reuse Facility and further cost comparison; and
2. Authorize - City Manager to negotiate and execute a consulting services agreement with Jones and Stokes for the preparation of an Environment Impact Report for the Sewage Treatment-Water Reuse Facility; and
3. Authorize - City Manager to negotiate and execute a consulting services agreement with Red Oak Consulting for the preparation of Design-Build-Operate Procurement Contract documents for 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. 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 Million Gallons a Day (MGD) of effluent.

The initial step in selecting a suitable site was to identify 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 in this report summarize the application and refinement of the approved (June 3, 2002) Tentative Site Selection Criteria to approved properties (July 22, 2002) located within three quarter section areas and one fifty acre parcel. Subsequent City Council action (September 2, 2003) directed staff to continue further analysis on the three quarter sections and fifty acre parcel considering best available process treatment technology currently available, and to prepare a Design Build and Operate Request for Qualifications for the plant. This report identifies one (1) preferred site with three (3) alternatives including a detailed analysis by Blair Church and Flynn (BCF) for each of the four (4) sites. In addition this report provides a detailed discussion of alternative treatment technologies, water reuse master plan update, Environmental Impact Report preparation and the Design Build and Operate (DBO) method of project delivery.

Discussion

On June 3, 2002, Clovis City Council approved eleven (11) 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. Subsequent City Council action (September 2, 2003) directed staff to continue further analysis on the three quarter sections and fifty acre parcel considering best available process treatment technology and to prepare a DBO Request for Qualifications for the plant.

The Site Selection Criteria established the basic protocol for the requirements of the acreage necessary to address the concerns expressed throughout the Council meetings, public hearings and during the development of the Good Neighbor Policy report. The seventy-five (75) acres identified included twelve (12) acres for the physical plant and approximately sixty-three (63) for an open space buffer element. The need for the seventy-five (75) acres in area was established from the type of treatment technology being considered, oxidation ditch, and the belief a substantial setback buffer would be required to prevent any objectionable odors from impacting adjacent properties. Council authorized staff at the September 2, 2003, Council hearing to consider best available process treatment technology. At the time of this report staff has identified several different alternate treatment technologies utilizing the same treatment

process, activated sludge. These alternative treatment technologies would not require the same seventy-five acres (75) to site and buffer the facility. The footprint of the physical plant for the process treatment technologies currently being evaluated is quite small at two (2) acres with an additional four to eight (4-8) acres included for the buffer element. The total requirement for the ST-WRF could hence be reduced from the current seventy-five (75) acres to between six and ten (6-10) acres.

Staff and City Council members have toured two facilities in Arizona, near the Phoenix area, which utilize an alternate treatment process. These two sites were both sited on approximately six to seven (6-7) acres including both the physical plant and buffer. Integration of buffer area is a policy matter for Council. The following section is a brief summary of the treatment technologies currently being considered.

Alternate Process Treatment Technology

The ST-WRF will be an advanced tertiary wastewater treatment plant utilizing the activated sludge process. The activated sludge process is a continuous-flow, aerobic biological process with a proven record for wastewater treatment. There are several alternative process methods which all fall within the category of activated sludge processing.

The McFarlane and McFarlane Company have retained a treatment-processing consultant, Parsons, to advise their company during the ST-WRF site selection process. Parsons, at the direction of McFarlane and McFarlane, have provided staff with a detailed evaluation of treatment processes currently being utilized by industry. This document is attached in Section 1 of this report. After review of this document, staff believes it is premature to select a specific treatment technology at this time. Several of the process treatment technologies reviewed could be viable alternatives for the ST-WRF being considered. Key to the treatment technology for the ST-WRF will be the issues raised by the Good Neighbor Committee Report; small footprint enclosed for noise and odor control, aesthetically compatible with the neighborhood.

Staff is recommending Council allow the treatment technology to be chosen at the time a contract is entered into with a DBO team described later in this report. The City Council and staff have toured several activated sludge processing plants utilizing a Sequence Batch Reactor (SBR) in the Phoenix Arizona area. The SBR treatment process utilized by this facility meets all the key concerns raised by not only the Good Neighbor Committee but also the public during the prior public hearings. The SBR technology allows for a very compact footprint and utilizes a highly sophisticated computer control system to operate the process. The development of sophisticated computer control software will allow the SBR process to gain a stronger foothold in area where land is at a premium. With the SBR type facility the issues of noise and odor control have been addressed by constructing most of the physical plant enclosed underground and fully air scrubbing all phases of the treatment process.

Site Selection Study – Report of Findings

The Clovis City Council approved three quarter section areas and a fifty-acre property to be analyzed for siting of the ST-WRF location. Environmental Sciences Associates (ESA) conducted an environmental siting constraints analysis on the subject property. The results of this analysis indicate there are only very specific locations on the property that have environmental issues of concern. The detailed report of findings is attached in Section 2. In summary the ESA indicates a ST-WRF can be environmentally cleared to be located on all but a limited area on the property investigated, along and adjacent to the pup creek alignment. This area was identified as potential habitat for the giant garter snake by the California Department of Fish and Game. The ESA report has simply identified this area as potential habitat, not the existence of the giant garter snake. Further biological studies will be necessary when any development occurs in the vicinity of Dog Creek.

BCF has integrated the ESA information into their engineering studies for site selection. The BCF report identifies four potential sites as Northwest (NW), Southwest (SW), South central (SC) and Southeast (SE). The McFarlane and McFarlane Company has advised staff, that their preference for siting is the Northeast (NE) site however they have submitted a letter to the City (dated November 25,2003 attached to this report) requesting that two additional sites, owned by McFarlane and McFarlane Company, be included within the BCF investigations. These two additional sites are identified as East (E) and a thirty(30) acre parcel of land south of Ashlan Avenue approximately at the Highland Avenue alignment. The detailed BCF study is attached in Section 3 of this report. A review of the report summary indicates that the best engineering location is either the NW or SW locations but based upon the input from the community during the public hearings for the project, staff does not recommend either of these two sites be candidates due to their close proximity to the Regan Educational Center complex.

The SC and SE locations are potential sites with the SC site being the preferred siting location for the ST-WRF. The NE site is considered a poor site. However in a recent meeting with the McFarlane and McFarlane company and their representatives, staff is recommending Council authorize an additional sixty (60) days to allow staff and BCF to complete a cost comparison study of infrastructure requirement between the preferred SC site, the SE site and the McFarlane and McFarlane E site. If the additional thirty (30) acre site were added for further study it is in a location comparable to the SC site, therefore the general cost comparison for the SC site would also apply to the thirty (30) acre site. The cost comparison study will consider the additional cost necessary to install additional trunk sewer main and a sewer lift station to service the E location. Included within the analysis will be both the initial capital costs of the infrastructure and an estimate for the Operations and Maintenance cost of the lift station over the design life of the facility. A lift station will be necessary as the depth of the sewer trunk main to service the E site is thirty-five (35) to thirty-seven (37) feet, approximately ten to twelve feet (10-12) deeper than the SC site. Constructing deep sewer mains have a high initial capital cost in addition to higher construction costs as a result of the depth for the lateral sewer mains feeding into the trunk main itself. Maintenance of deep sewer mains

is also a real concern, providing the mandatory confined space entry into the manhole will require additional resources to conduct safely.

Staff recommends Council approve the addition of the site south of Ashlan Avenue for evaluation during the additional sixty (60) day cost comparison study period. Though this site is outside of the approved study area, staff believes the siting of a smaller footprint facility utilizing the advanced treatment technology will meet the original criteria established by Council and during the public hearing process.

Design Build and Operate DBO- Procurement Consultant

Council authorized staff at the September 2, 2003, Council hearing to develop a Request for Qualifications (RFQ) for a design consultant for the ST-WRF. Staff working with the City attorney's office determined the ST-WRF project met the qualifications to use a Design-Build-Operate (DBO) method for project delivery, Government Code 5926. As a result of this determination, staff working closely with BCF determined the best approach was to split the delivery method somewhat further by issuing a Statement of Interest (SOI) for a Design-Build-Operate (DBO) team for the project and a Request for Proposal (RFP) for a consultant to prepare the DBO contract documents. This information was placed in the October 6, 2003, issue of Engineering News Record.

Staff has received eight responses to the SOI and three responses to the RFP. The intent behind the SOI was simply to determine what treatment technologies were available and if DBO teams were interested in the ST-WRF project. Staff will maintain a file of the DBO respondents and provide this information to the DBO procurement consultant for their use in the RFP process. Staff interviewed two of the three companies who responded to the DBO procurement consultant RFP. The third firm chose to decline their further interest as a result of current other work demand on their firm.

Staff contacted references provided and firms in the industry as a check on each firm's qualifications. Both firms were found to be highly qualified. Staff is recommending Red Oak Consulting as the DBO procurement consultant. Red Oak Consulting is a wholly owned subsidiary of Malcolm Pirnie. Malcolm Pirnie is ranked 14th out of the top twenty-five in the United States by Engineering News Record magazine (ENR). Red Oak's extensive background in the DBO process will bring to the ST-WRF project a wealth of knowledge, which will be invaluable for the City. Red Oak Consulting will be presenting a brief overview of the DBO process to allow Council a better understanding of the DBO process itself. A copy of Red Oak Consulting presentation and information regarding their firm is attached in Section 4 of this report.

Environmental Impact Report (EIR)

Staff issued a Request for Qualifications in September 2003, to ten EIR consulting firms and a trade publication and received three responses. Staff interviewed the two

qualified firms, URS Corporation and Jones & Stokes, and conducted follow-up communications with each firm and their references. Though both firms offered high-caliber experience and qualifications, Jones & Stokes presented an outstanding combination of experience preparing EIRs for water treatment plants, experience in completing environmental review for wastewater facilities throughout the state, including design-build projects. Jones & Stokes also offers a depth of in-house talent including staff attorneys and public affairs specialists that will be available to the city during the course of the EIR. Based on its evaluation of the two qualified environmental consulting firms, staff recommends the selection of Jones & Stokes of Sacramento to perform the environmental impact report for the ST-WRF. As Council is aware, the ST-WRF is a highly complex and dynamic project. There is a distinct advantage to long-term productivity and cost-efficiency by integrating the various staff and consultant teams early as the project develops. In order to coordinate environmental issues and processes with the DBO consultant and project engineering team, staff recommends that Jones & Stokes be contracted with on a time and materials basis, prior to the actual start of the EIR.

Additional information on Jones and Stokes is attached in Section 5 of this report.

Water Reuse Master Plan – Purple Pipe

The City of Clovis water master plan utilizes water reuse as a key component in meeting the projected water balance in the future. In the approved 2003/04 Capital Improvement Program budget the development of a water reuse master plan was scheduled. Staff is working with BCF in the development of this water reuse master plan. The water reuse master plan will become one of the significant issues to be addressed as the ST-WRF moves forward in the process. The ability for the City to establish the method, manner, location and usage demand for the reused water is critical to permitting a ST-WRF with the State Regional Water Quality Control Board. A detailed task outline of the methodology currently being considered is attached in Section 6 of this report.

The City Council with the update and approval of the development fees for 2003/04 included a purple pipe fee component. This fee will be assigned to the construction of a purple pipe water main grid system in the City. New development will be installing purple pipe with their project infrastructure construction activities. One key aspect of the water reuse master plan is evaluation of the locations through out the City, which are viable for reused water. Not all areas in the City will be economically viable for water reuse. Key locations include the Highway 168 alignment, California University Fresno agricultural fields, public parks and other City property.

ST-WRF Project Management

For the ST-WRF project to be effectively managed a detailed project budget and schedule will need to developed and maintained. Key milestone dates are essential to keeping the ST-WRF on track and on schedule. Staff in conjunction with the

consultants on the project will develop a project schedule as a tool for senior management and the City Council to quickly determine the status of the project. A preliminary Schedule is attached in Section 7 of this report.

The Capital Improvement Budget approved for 2003/04 as identified in the following table, itemizes a breakdown for project funding.

Item	Description	Budget
1	Water Reuse Master Plan, BFC consultant	\$175,000.00
2	ST-WRF Design Services, BCF Sewer Master Plan and Red Oak consultants	\$1,000,000.00
3	Environmental Impact Report, Jones and Stokes consultant	\$150,000.00
	Total	\$1,325,000.00

Staff is currently working with BCF, Jones and Stokes and Red Oak to develop detailed Scope's of Work for each of the respective firm's services. The preliminary estimates received to date indicate the approved Capital Improvement Project budgets are sufficiently funded to allow the EIR and RFP contract documents to be prepared. Upon completion of the detailed scope of work for each firm, the City Engineer will prepare a detailed project budget to manage the ST-WRF project as a CIP project. Engineering Service Agreements will be prepared and submitted to the City Manager for signature and approval.

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-four months to the public outreach component of the ST-WRF project to inform the public and to encourage discussions. Council approval of the two consultants proposed by staff; Jones and Stokes and Red Oak Consulting will allow the project to continue to move forward.

The evaluation of the Environmental Constraints Analysis/Alternative Site Screening for the Sewage Treatment-Water Reuse Facility has reached conclusion, with the exception of the completion of a cost comparison evaluation requested by the McFarlane and McFarlane Company of their proposed E site as compared to the City's preferred SC site.

Staff requests Council authorize the cost comparison of the E site to the SC and SE sites to address questions raised by McFarlane and McFarlane Company. Staff also requests Council direct staff to consider the second site, thirty acres (30) proposed by McFarlane and McFarlane south of Ashlan on the Highland alignment be evaluated during the same sixty (60) days. To assist Council in managing this project, staff has compiled the information approved through previous Council action developed to date as attached in Section's 8, 9 and 10 of this report.

Steps Following Approval

- Staff will continue to work with BCF in the preparation of an infrastructure costing comparison analysis of three potential sites for the Sewage Treatment-Water Reuse Facility.
- Staff will prepare and final a consulting services agreement for preparation of the Design-Build-Operate procurement documents for the ST-WRF with Red Oak Consulting and submit to the City Manager for signature.
- Staff will prepare and final a consulting services agreement for preparation of the Environment Impact Report for the ST-WRF with Jones and Stokes Consultant and submit to the City Manager for signature.
- Staff will final the cost comparison study for the three sites's for the ST-WRF and submit for Council review and approval, within approximately sixty (60) days at a regularly scheduled Council meeting in February 2004.

Submitted by:



Steven E White, City Engineer

Recommended by:



Jeff Witte, Assistant City Manager

JEFFER, MANGELS, BUTLER & MARMARO LLP

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November 25, 2003

63312-0001

Via Facsimile and U.S. Mail

John Wright, AICP
Director of Planning and Development Services
City of Clovis
1033 Fifth Street
Clovis, CA 93612

Re: Alternate Site of Water Reuse Facility

Dear John:

During recent meetings between our client, McFarlane & McFarlane, and City representatives, an alternate location involving the properties of the McFarlanes and others was identified as a possible site for the City's proposed Water Reuse Facility ("WRF"). This site includes approximately 40 acres, of which approximately 30 acres is owned by the McFarlanes, and is located south of Ashlan Avenue and west of Highland Avenue (indicated with cross-hatching on the enclosed figure).

The City's use of this site for the WRF may be compatible with the McFarlanes' vision for future development of its lands located within the Southeast Urban Center Specific Plan. The McFarlanes' willingness to allow the City to acquire this site for the WRF will depend upon reaching agreement on several matters, including, without limitation, the acquisition price, priority use of reused water effluent from the WRF, the right to approve design elements such as technology, aesthetics, and site configuration to ensure adequate buffers, etc. The McFarlanes are prepared to discuss these matters with the City's representatives in the coming weeks. In addition to this location, the City has indicated it will continue to evaluate the economics of alternate site "E" which, per our discussions, would be located immediately west of McCall Avenue and north of Ashlan Avenue, as labeled on the enclosed figure.

JEFFER, MANGELS, BUTLER & MARMARO LLP

John Wright, AICP
Director of Planning and Development Services
City of Clovis
November 25, 2003
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We look forward to continued discussions regarding this site at a mutually acceptable time. Please call me if you have any questions.

Best regards.

Very truly yours,



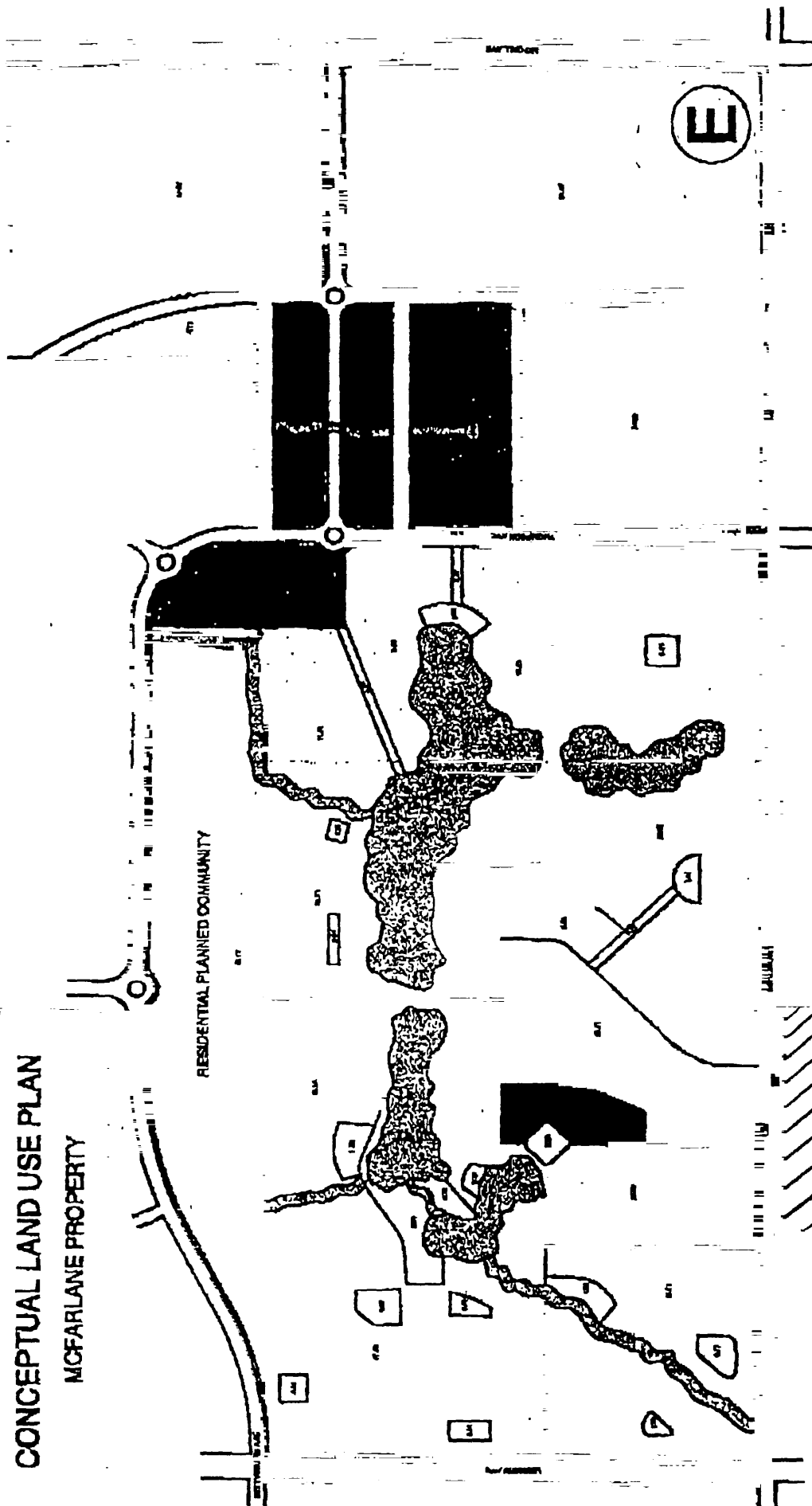
DAVID P. WAITE of
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Enclosure





cc: Thomas J. Riggs, Esq., City Attorney

CONCEPTUAL LAND USE PLAN

MCFARLANE PROPERTY








LAND USE

-  Commercial - 8.33 acres
-  Community Center - 18.05 acres
-  Business Campus - 167.87 acres
-  Low Density Residential - 148.22 acres



1" = 600'

-  Medium Density Residential - 79.58 acres
-  Medium High Density Residential - 89.97 acres
-  High Density Residential - 14.05 acres
-  Park / Landscaping - 51.06 acres
-  Water Feature - 40.48 acres

E