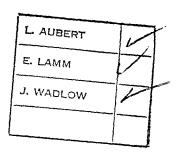
CIVIL ENGINEERING

# WESTERN ENGINEERS, INC.

588 24½ Road P. O. Box 571 Dial 242-5202 GRAND JUNCTION, COLORADO

May 15, 1974



Mesa County Board of County Commissioners P.O. Box 897 Grand Junction, Colorado 81501

Re: Mesa County Sanitation System
Master Plan Studies Modification for Utilization
in the Facilities Planning
Process (Step 1 - Guidance For
Planning by U.S.E.P.A.)

Gentlemen:

Reference is made to the meeting which was held on May 9, 1974, to discuss the need for modifying the proposed Master Plan Studies and Report, as referred to above. The meeting was attended by representatives from your office, State and Local Health Department Officials, City of Grand Junction Officials, representatives from the Mesa County Sanitation Committee, other engineers and planning officials.

Particular concern was voiced by Health Department Officials about the possibility of duplication of work by Western Engineers, Inc. on the Master Plan for the Grand Valley and the Basin Studies by Nelson, Haley, Patterson & Quirck, Inc. The possibility of modifying Master Plan Studies to comply with Step 1 of the Facilities Planning Process was also discussed.

The discussions, with regard to possible conflicts or overlapping of engineering studies, did not appear to bring out any real indication of serious conflict. Apparently, the terms of the contract, covering the basin studies, were unavailable at the meeting. However, there seemed to be no indication that the scope of the basin study would be comparable to that proposed for the Grand Valley and it was stated that the portion of the Colorado River Basin containing the Grand Valley would not be under study before 1975.

County Budget Officer, T. M. Ford requested that Western Engineers, Inc., review the E. P. A. publication "Guidance for Facilities Planning" and estimate the cost and time which might be involved in incorporating Step 1 of the Facilities Planning Process as part of the Master Plan Report. The primary requirements covered by this step include defining planning areas and preparing an environmental assessment. Little additional effort will be required for defining planning areas, since this will be substantially in accordance with the original study plan. However, preparing an environmental assessment of all potential alternates and developing supporting data for each, may be a different matter. Some alternates which might normally be rejected with a minimum investigation may require extensive documentation to support such rejection so far as governmental officials are concerned.

After serious consideration of the limited information which is available at this time and considering that there will undoubtedly be uncertainties and problems of implementation, on the part of all concerned, the suggested modifications are expected to affect the study as follows:

Compliance with Step 1, Guidance for Facilities Planning (see attached and marked copies of Chapter 2, Pages 10, 11 and 12)

Additional Time Required 60 days Additional Cost (Estimated) \$ 10,000.00

It is possible that, if enough time was available, all pertinent reference material, as listed in Chapter 1, Paragraph 1.3, of Guidance for Facilities Planning could be secured and conferences could be held with E. P. A. officials on this matter, a more exact estimate of time and cost could be determined.

It is our opinion that the study, as covered by our contract dated April 15, 1974, will produce a document which will serve as a valuable guide for the Board of County Commissioners. It is also our opinion that the natural topography and other characteristics of the Grand Valley are such that a basic master plan will not be subject to drastic modification as a result of environmental impact studies and detailed analyses of alternates. Future developments may indicate changes in locations and types of treatment facilities within certain limits. Final locations of outfalls and intercepters may vary somewhat from the preliminary plan. These changes are expected and should be incorporated into the plan by a program designed to update the report periodically.

As a result of recent uncertainties, very little has been done on the Master Plan Study, except for sending for various reports and statistical documents which may be pertinent to the study. Please advise us as to when we are authorized to proceed and under what conditions. Sincerely, Richard J./ Mandeville, WESTERN ENGINEERS, INC. RJM:pc Encl. cc: Bob Jennings **-** 3 -

#### CHAPTER 2

#### FACILITIES PLANNING PROCESS

## 2.1 INTRODUCTION

Figure 2.1 outlines the facilities planning process. Although Figure 2.1 suggests that the process involves a series of distinct and separate steps, this ordinarily would not be the case. Iteration of the steps would occur and the sequence of the steps may differ from that shown in some cases.

### 2.2 DELINEATE PLANNING AREAS (STEP 1)

The first step in the planning process--defining the planning area--is one of the more important. It is essential to outline a geographic area sufficient to permit unrestricted analysis of alternatives including waste treatment methods and ultimate disposal options for sludge and treated effluent. Also, each planning area should encompass the entire area where cost savings, other management advantages, or environmental gains may result from interconnection of individual waste treatment systems or collective management of such systems.

In delineating facilities planning areas, consideration should be given to applicable provisions of the regulation, "Preparation of Environmental Impact Statements" (40 CFR, Part 6). This regulation (reference t) provides that an environmental assessment is an integral part of a facilities plan and such assessment must adequately cover the cumulative environmental impacts of proposed treatment works. Thus, the geographic scope of the facilities plan must be sufficient to permit such analysis. Otherwise, the referenced regulation provides that if a number of related facilities plans are submitted in conjunction with applications for grants, EPA may delay approval of these plans and award of a grant until the plans can be reviewed together to allow the agency to properly evaluate their cumulative environmental impact.

Recognizing the considerations discussed above, planning area boundaries for non-metropolitan communities (1970 core city population less than 50,000) should encompass the entire community including those areas subject to future urban development. Where cost savings or other advantages might result from waste treatment system interconnection, joint effluent or sludge disposal

facilities, or collective management for two or more nearby communities, the planning area should encompass the community group. Should a community be isolated sufficiently to preclude such regionalization, the facilities planning area should be confined to that community.

Piecemeal planning for metropolitan areas must be avoided as such planning is likely to foreclose consideration of the range of options necessary to assure a cost-effective solution. However, in some cases single facilities plan coverage of such entire areas may be impracticable for institutional, geographic or other reasons. Where practicable, particularly for those smaller metropolitan areas with a limited number of political jurisdictions or of public bodies having jurisdiction over sewage disposal, facilities planning areas should include the core city plus contiguous urban areas. Where sub-metropolitan planning is necessary, the planning area should encompass contiguous waste treatment systems where such systems may require major new or expanded treatment plants, sludge disposal or effluent disposal facilities and where system interconnection or joint facilities would be feasible alternatives. If these considerations do not apply, facilities planning areas within metropolitan areas should include, as a minimum, the entire waste treatment system.

## PREPARE PLAN OF STUDY (Step 2)

A plan of study will be prepared and approved by the State and EPA prior to initiating a facilities plan. plan of study will be a brief document presenting the following information:

a. a map delineating the planning area;

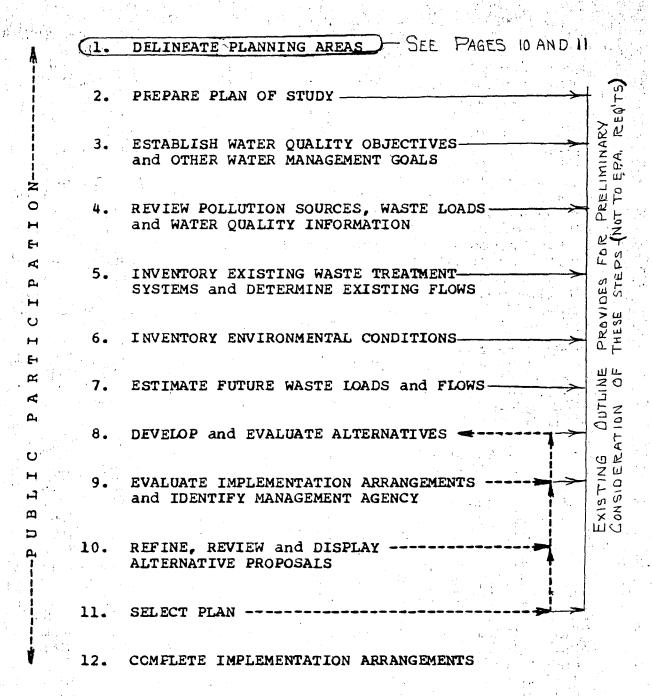
the responsible planning entities and

arrangements for conducting the planning;
c. a description of the nature, scope and detail of the planning effort including the scope of required infiltration/inflow documentation;

a breakdown of specific planning tasks and a schedule for their completion; and

an itemized estimate of planning costs.

With respect to item c, the recommended plan should have sufficient scope and detail to assure that the water quality goals and technical criteria are met. Interceptors and collection systems will be located and sized; the treatment plant location, site layout and unit process combinations will be displayed; effluent disposal, reuse,



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