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**RECOMMENDATIONS FOR SEWER SERVICE POLICY IN MESA COUNTY**

December 30, 1983

## SUMMARY

This paper generally identifies issues and problems facing Mesa County with regard to sewer service. As directed by the Commissioners, this study also sets down recommendations for proactive policy. The County thus can ensure adequate cost effective and safe sewage treatment to County residents, now and in the future. The process used in developing the material below involved several meetings with County department heads and assigned support staff.

In December a consensus was reached for suggesting certain actions to be initiated by the Commissioners. While other recommendations may follow, the basic apparatus proposed for County involvement with sewer service has been drawn up.

Issues and recommendations fall under the following conceptual categories:

- Organizational
- Financial
- Technical
- Landuse/Development

It is understood that some sewer issues are of more immediate concern than others. These have been emphasized in the paper. The major aim of the Public Works Group in this endeavor has been to regard sewer service in a comprehensive manner.

### Informational Resources

Studies which have been used in the development of these recommendations include:

1. Carrying Capacity Study for the Grand Junction Area.  
Nov. 1979
2. Grand Junction 201 Wastewater Treatment Facilities Study.  
August 1977
3. Fruita 201 Wastewater Facilities Study. January 1977
4. Palisade 201 Wastewater Treatment Facilities Plan.  
April 1978
5. Mack Sanitation District Study and Articles. 1976 & 1977
6. DeBeque Sewer Studies from Chevron's Analysis of 1982.
7. Collbran Sewer Studies from Chevron's Analysis of 1982.

### List of Appendices

- A. County Attorney's memo on financial mechanisms
- B. City/County Agreement Summary
- C. Eric Kelly's memo concerning alternative sewer authorities
- D. Inventory of sewage treatment facilities
- E. Detailed issue identification by geographical areas
- F. Other alternatives considered for sewer policy

### Maps

- A. Sewer facilities map of Central Grand Valley
- B. Mesa Sewer Service Areas

## I. INTRODUCTION

Mesa County has grown in the last several years from a predominantly rural county to an urban county. With this growth, pressures for urban services have grown. While the County for the most part does not have the ability or the desire to operate urban services, the needs for them are being expressed by County residents on a daily basis. Treatment of sewage is one of the more important of these.

The County has recongized the important relationship between sewer service and land use in the Mesa County Land Use and Development Policies (1982-1983). Policy number six has the following major elements:

1. New subdivisions outside of the Grand Junction 201 areas must connect to an available public sewage disposal system or an approved private system, or use septic system conforming to state and local laws.
2. New development within the Grand Junction 201 sewer service area must connect to a sewer line under certain circumstances. These are, basically, when the line is capable of handling the flow and is within 400 feet of the property line.
3. The County subscribes to the Colorado Department of Health policy of "consolidation" to discourage small and scattered sewage treatment systems from being established.
4. Septic systems are recognized as appropriate for low density residential development and for small-scale isolated commercial development only. The Mesa County Land Development Code sets a guideline of 1 dwelling per 2 acres as a minimum lot size for septic.

While these elements have been a appropriate first step towards a consolidated policy framework for sewer service in the County, further development of decision making tools seems to be needed in response to citizen and landuse pressures.

The County's involvement in sewers includes not only development and landuse issues. The County owns, through its issuance of revenue bonds, the Persigo Wastewater Treatment Plant and most of the major interceptor sewer lines currently managed by the City of Grand Junction. These are: River Road, Goat Wash, Tiara Rado, and Scenic. The City of Grand Junction operates the plant, interceptors, and collects fees for sewer service for this system. The County must play a strengthened role in reviewing the sewer plant and line capacities with regard

to land use patterns and aggregate growth. The County also needs to play a greater role in the financial planning of Persigo Plant and the interceptors now that connections are being made.

All of these factors lead the County toward establishing itself in the "sewer business" as a new function. This role requires comprehensive strategies to solve short term problems and long term problems.

## II. THE ISSUES

### Specific Issues Demanding Immediate Attention

#### Proposals For LID's

Currently 7 proposals have been presented to the County to establish Local Improvement Districts for sewer lines. While seeming to be a very effective mechanism, questions arise as to their implementation:

- What agency reviews the proposals?
- How are boundaries for districts established?
- What are the replacement responsibilities?
- Who takes on the oversizing costs?

To provide answers for one applicant requires a consistent response to others. Any procedure to be adopted needs to be sensitive to large scale proposals involving hundreds of acres as well as small, individual line extensions.

## III. CURRENT STUDIES AND PLANS

### A. Studies Conducted for the Mesa County/Grand Junction 201 Area

Three studies are being conducted by the City of Grand Junction as Manager of Persigo Plant and interceptors. The three studies being undertaken by the City are:

- Service Area Rates Study (Request for Proposal draft)
- 201 Area Update (Request for Proposal being drafted)
- Infiltration and Inflow Study (consultant contracted with)

In accordance with the City/County agreement, the City Public Works Director, as manager, is authorized to sponsor these projects. It is in the interest of the County however, to be more fully represented in the establishment of scope of services. Several aspects of the three studies will affect the County in terms of landuse, and its ability to finance future plant expansions and possible lines.

B. Fruita 201 Update Studies

The submittal of Quail Ridge, Filing #1 has triggered a process to update the City of Fruita's 201 service plan and boundaries. The service boundary lines would expand to add 4 square miles of land under County jurisdiction not including Quail Ridge. While it is clear that both jurisdictions should be involved in the expansion, it is less clear what responsibilities each entity has.

Since it is likely that another boundary change will occur for the Fruita 201 plan, it is important to establish precedents now in defining roles.

C. Powderhorn Studies and Plans

Powderhorn Ski Area has for some years been considered for intensive development; at least 3 developers are in various phases of planning projects. It has been determined by the State Department of Health that development in this area will be required to participate in a single sewage treatment facility. The County at this point needs to indicate clearly how this requirement will be accomplished. If by Metro District, then what boundaries should be included, is just one question needing an answer.

IV. THE SEWER PROBLEM

While not all problems associated with sewer service are this immediate, several issues will need to be faced in the future by the County as they arise. The following categories cover the range of subjects addressed (see appendix 1).

A. Organizational

There have been several questions raised as to the organizational framework under which sewer lines may be financed and plants developed in the County.

Similarly, the departments addressing sewer service in one form or another are numerous, since many are affected. Contacts on specific questions with regard to sewers has been awkward and inconsistent due to this. Clearly an organizational framework is needed in the County to make sewer service decisions.

B. Financial

With ownership of Persigo Plant, there should be greater concern for the retirement of the debt incurred by

the County. The general direction of fiscal planning for the Persigo system need<sup>s</sup> to be considered, as well as specific ways funds are being handled as they affect lands under County jurisdiction.

A clear financial accounting system needs to be established which: 1) collects fees at a rate which will cover operating expenses, and 2) collects fees which offset existing and future capital costs for the sewer plant and line.

The extension of sewer service to unincorporated areas of the County creates fiscal impacts requiring other services to be developed. It is a crucial issue for the County to:

- determine the cost of other improvements as sewer service becomes available, and
- coordinating with districts and municipalities as these organizations extend service lines.

Finally it is necessary to establish a financing mechanism whereby lines can be extended to areas now needing service. This relates to the 7 Local Improvement District proposals as indicators of the need for policy in this area.

#### C. Technical

Regardless of the financing mechanism for sewer service connections, technical engineering staff - capable of reviewing line extension proposals, and monitoring *construction and use* of lines, is necessary.

At present there <sup>are</sup> <sup>County</sup> ~~is~~ no personnel with strong backgrounds in utilities and as growth continues in the County, the need for staff increases. Other areas of *needed* attention are in review of district petitions, and reviewing the Persigo system annual budget.

#### D. Landuse/Development

Sewer service as a major determinant of growth is well known. By providing this service in a given location, development will tend to occur there.

For Mesa County, the capacity of sewer facilities <sup>has</sup> been based on zoning. With changes in zoning, <sup>allowing increased density</sup> the capacity lessens and then affects the ability to develop. At some point a decision needs to be made for requiring development to <sup>(pay its own way)</sup> This is particularly true when ~~property~~ <sup>property</sup> increases its density

*what mean?*



potential. The new Mesa County Land Development Code emphasizes the relationship of development to sewer service.

## V. RECOMMENDATIONS

### A. Organizational

The Public Works Group has recommended that a County Sewer Board be formed. The Board in any case would be ideally responsible for:

- Approving Local Improvement Districts by delegated authority. *legally possible?*
- Working with other governmental agencies to coordinate engineering standards and coordinating of capital investments.
- Acting as arbitrator as changes in allotted line capacity occur.
- Assisting in the creation of a capital improvements program as it applies to sewer service, *particularly for collection system expansion in the Persigo area.*

#### Advantages are:

- The Board would provide consistency in implementing sewer policy. Working from a specialized area of policy a Sewer Board would review on a regular basis service proposals and questions.

Further, its subordinate relationship to the Board of County Commissioners in terms of accountability would avoid conflicting policies and actions.

- The Sewer Board concept has County flexibility with regard to authority. Selected powers could be assigned to the organization, thus enforcing recommendations. There are optional directions which may be assigned, including a master sewer line plan for the urbanized areas, negotiating powers with special districts and control over a sewer service budget.
- Centralization - currently, the numerous issues surrounding sewer services have been dealt with by different County divisions and departments. Communication is awkward in obtaining necessary information and notifying all concerned as issues arise. With a Sewer Board, these questions become focused. Staff as needed would be informed.

- Attention to financial management. With a working Board, ongoing efforts for cost effective sewer service planning would be accomplished.

## B. Financial Management Recommendations

### Local Improvement Districts

This is a relatively new tool for financing sewer lines. It has been used for many years to fund road improvements. The LID involves establishment of a geographic district in which sewer users are assessed a fee which pays off the sewer improvements. It is an ideal mechanism for financing sewer in a developed subdivision or a rapidly developing subdivision. Under the LID's, the cost of the new sewer can be bonded and paid off over time, thus lessening the <sup>initial</sup> financial burden on the developer and the homeowner.

While there are advantages associated with this form of district, a procedure must accompany this mechanism to avoid eventual costs and inconsistencies. Such a procedural structure would include the following points:

1. A denial/approval set of criteria for LID proposals.
2. Criteria for determining line oversizes when future development may tie in farther out.
3. Method for determining boundaries of an LID. Should it be frontage properties, or any property within 400' of the line?
4. Definition of maintenance and operation responsibilities. How should the district be assessed to pay for maintenance costs? *Can it be so assessed?*
5. Line replacement responsibilities. *Maintenance program is how accomplished?* *Need it be assessed if monthly service charges cover this?*
6. How to deal with crossing properties for serving an area, or requiring hookups where crossed (*forcing benefits*). *(defining benefit for assessment)*
7. Monitoring of line capacity when oversized. (*whenever*).
8. Technical staff capable of reviewing and making recommendations on LID placement and sizing. → *ROW, cost allocation for assessments.*

An administrative structure which would address the above questions has no precedent. While State law does not prohibit it, such administration would be a test case in the State.

↙  
LID's can only be approved by Commissioners. "Test case" would jeopardize bonding on LID's.

Persigo Plant

Improve budgetary process for Persigo Plant by clearly earmarking operating and capital costs and a sewer tap fee and user fees which will cover both. It is suggested that there be financial reporting on a periodic basis by the plant and line manager.

more than once a year, as currently done.

C. Technical Refer to expansion funding; and the rate study to be undertaken in Spring.

It is recommended that prior to a decision on any Local Improvement District proposal there be a utilities staff person hired. It is assumed that since the 1984 budget cannot accommodate more personnel, this addition would be accomplished in one of two ways:

1. The cost of a full-time utilities engineer be offset by the sewer fund for 1984. The fund would in turn be partially offset by review fees for Local Improvement Districts and other special districts.
2. Establish a temporary procedure with the City of Grand Junction to review the proposals until the next budget year.

loyalty for District petitions should be checked. OK for LID's.

Maintain on basis the existing extension review

The purposes served by having a staff person are:

1. Adequate review of LID proposals.
2. Monitoring of line capacities as connections occur.
3. Staff to take care of problems associated with non-municipal sewer facilities. (~~This is an area where lack of expertise really shows~~).

D. Land Use/Development

In order to establish a better connection between landuse and sewer service the following points are offered:

1. The basin study being conducted for Persigo Service Area be adopted as part of the Policies. By using this study it can be determined what capacities exist with each interceptor, and a way to project future costs depending on rates of growth.
2. As lines are developed in the County, a review of zoning should be conducted to determine future problem areas. Expensive improvements would be avoided in many cases.

## FUTURE OPTIONS FOR SEWER POLICY


- A.
1. COMPLETE SEWER STUDY (IES)
  2. HIRE UTILITIES STAFF
  3. NAME SEWER BOARD
  4. ESTABLISH POLICIES
  5. APPROVE LOCAL IMPROVEMENT DISTRICTS

- B.
1. NAME SEWER BOARD
  2. COMPLETE SEWER STUDY
  3. APPROVE DISTRICTS WITH CITY STAFF ASSISTANCE
  4. HIRE STAFF
  5. ESTABLISH POLICIES

- C.
1. APPROVE LOCAL IMPROVEMENT DISTRICTS WITH INCOMPLETE STUDY
  2. NAME SEWER BOARD
  3. COMPLETE STUDY
  4. HIRE STAFF
  5. ESTABLISH POLICIES

- D. OTHER COMBINATIONS

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## Sewer Issues Paper

### LID's

Question of Forced Hookup

GW - against

JP - give them \$ mech.

GA - Flexibility for payment

Need \$ for interest

Dev. Bonds w/ 10 yr. maturity

Nichols Study - Storm Sewer Separation City Focus

- Capacity Analysis

- Some Catchment Area Definition

GW - Annexations - reduce PDA

- likes Plan 1.

- Rates Study -

- look at storm sewer sep. - system level  
- costs + ben's.

- 201 Update -

~~and~~ Consider use of City plants.

- Nichols - provide ~~with~~ data for  
rates study.

- Control by elected officials

## A. 201 PLAN UPDATE

- (1) REPORT WILL INCLUDE RECOMMENDED PROCEDURE FOR BOUNDARY CHANGE PROCESS.
- (2) THIS WAS DONE IN ORIGINAL 201 AND REVISION IN 1976. THE PURPOSE OF THE UPDATE IS TO REVIEW AND CONFIRM OR ADJUST
- (3) THE CLIFTON DISTRICTS ARE IN THE 201 STUDY AREA AND SERVICE AREA. SEVERAL ALTERNATIVE TREATMENT SCHEMES WERE THOROUGHLY INVESTIGATED. THE ADOPTED 201 PLAN IDENTIFIED THE ALTERNATIVE OF OPERATING AND MODIFYING AS NECESSARY THE CLIFTON LAGOONS AS BEING THE MOST FEASIBLE ALTERNATIVE. THIS WAS WHOLEHEARTEDLY SUPPORTED BY THE CLIFTON DISTRICTS. AS SUCH THE CLIFTON DISTRICTS ARE ELIGIBLE FOR EPA GRANTS TO MODIFY AND UPGRADE THE LAGOONS AS MAY BE NECESSARY. ANY ADDITIONAL INVESTIGATION OF ALTERNATIVE TREATMENT METHODS SHOULD BE INITIATED AND PAID FOR BY THE DISTRICTS.
- (4) THIS WAS EVALUATED IN THE 201 STUDY REVISION IN 1976. IT IS CLEAR THAT IT IS NOT FEASIBLE TO OPERATE THE OLD PLANT AS A SANITARY SEWAGE TREATMENT FACILITY. STUDY WILL BRIEFLY ADDRESS POTENTIAL AS STORM WATER OR INDUSTRIAL PRE TREATMENT FACILITY.
- (5) PENDING LEGISLATION CHANGES DAILY. ANY INFORMATION IN A PUBLISHED STUDY WOULD SURELY BE OUTDATED AT THE TIME IT WOULD BE READ. WE HAVE OTHER METHODS OF DOING THIS AND SHOULD CONTINUE TO USE THEM RATHER THAN INCLUDE THIS IN STUDY.

## B. SEWER AND WATER RATE STUDY

- (1) THIS WILL BE DONE, HOWEVER MOST OF THE EMPHASIS WILL BE ON MONTHLY SERVICE FEES AND OPERATIVE COSTS RATHER THAN LONG TERM CAPITAL DEBT RETIREMENT
- (2) I DON'T THINK ANNEXING OR NOT ANNEXING HAS ANYTHING TO DO WITH SEWAGE USAGE PATTERNS

(3) SEE B. (1)

(4) THERE ARE NO PROPERTY TAXES, SALES TAXES, OR SPECIAL ASSESSMENTS INVOLVED IN THE SEWER SYSTEM.

C. NICHOL'S INFILTRATION AND INFLOW STUDY

(1) PROJECTS AND COSTS WILL BE IDENTIFIED, BENEFIT TO SPECIFIC AREAS CAN BE IDENTIFIED, POLICY OF WHO SHOULD PAY HOW MUCH WILL HAVE TO BE DETERMINED BY POLITICAL NEGOTIATION.

(2) THIS NEEDS TO BE DISCUSSED BY ALL CONCERNED