



City of Grand Junction, Colorado
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250 North Fifth Street

April 17, 1987

To: James Shanks, Public Works and Utilities Director

From: Greg Trainor, Utility Manager

Re: Quarterly Report: First Quarter 1987: Wastewater

The following is a brief quarterly report concerning the operations of the Wastewater division within the 201 Area for the first quarter of 1987.

A. INTRODUCTION

The major activity of the Wastewater operation during the first quarter was the implementation of the new sewer rate. Public forums were held in January with enactment of the rate in February. Special meetings were held with the City Council/County Commission in February as well as with the Special Sanitation Districts who contract with the Wastewater operation for services. Mid February saw activity increase on the feasibility of refunding the 1980 Sewer bonds to raise funds for front ending construction costs for sewer collection system extensions. This activity will be ongoing into the Summer. In related business, priorities have been identified as to the areas of the 201 system that can be easily and economically added to the system in the near future. Close coordination with the Health Department is being attempted on septic failures and possible solutions to the problems. This has been successful-the coordination that is. Solutions really will not come until the Sewer fund has some money to assist in frontending costs and/or improvement districts are created for the larger projects. From an operational stand point, attention is being given to the collection system and the programming of scheduled preventative maintenance within the collection system. On February 23, Larry Brown and I met with the Central Grand Valley Sanitation District and had a free flowing discussion as to their concerns and problems. Larry's program for scheduled collection system maintenance was well received. This involves the division of the collection system up into sixty geographic areas with preventative maintenance to take place in each area on a scheduled basis. However, CGVSD is still concerned about their rates and how they relate to the work that they do for themselves. This is being addressed.

B. FINANCIAL

First quarter summaries of the financial condition of the Fund are provided as follows:

Revenues: Account Title	Est. 87	YTD	% left
Sewer use charges	2,655,000	653,259	75%
Sewer tap charges	100,000	12,675	87%
Septic Tank Disposal	32,000	6,383	80%

Expenditures:

Operations and Maint	640,735	63,826	90%
A and B Bonds	861,564	0	100%
Persigo Plant	1,173,476	212,182	82%

C. TREATMENT

The Treatment operation has proceeded without any permit violations during the first quarter. Progress is being made on the odor control program. Levels of H₂S within the belt press room are within permissible levels with the introduction of ferric chloride into the sludge. Ferric chloride is also being placed into the anaerobic digesters and the sludge blending tank with positive results. The notion of placing hoods over the belt presses has been abandoned with the success of the ferric injection. The air jump construction over the Persigo Wash siphon to pull H₂S into the headworks building and subsequent scrubbing is under design with construction to be completed within four weeks.

COLLECTIONS

The collections operation has been touched on previously. However, looking ahead to the 1988 budget we are considering and gathering data to support a request for an additional crew and equipment for the system. At present the preventative maintenance work will take six(6) years for complete cleaning of the entire system. A rate of 40 miles per year by one 2-man crew is the present norm. The collection system within the 201 area is 314 miles. Of the 314 miles, Central Grand Valley makes up 71 miles or 23% of the system, Fruitvale is 24 miles or 8% of the system, Orchard Mesa is 34 miles or 11% of the system, and the system balance is 185 miles or 58% of the system. We maintain 256 of the 314 miles. Central Grand Valley makes up 71 miles or 28% of the system we maintain with the balance of the system at 185 miles or 72%. During 1986, one 2-man crew completed 40 miles of line cleaning and preventative maintenance. Fifty percent of that took place in the Central Grand Valley system even though they account for 28% of the line. Under the new method of programming preventative maintenance, CGVSD will receive the same amount of preventative maintenance as they have line to the total system or 28%.

D. ISSUES OF INTEREST

Refunding and new services is the top Spring priority for the administration. Odor control work is the top priority for the treatment plant. Flow analysis of the interceptors is continuing with some interim information being available at the end of the second quarter after the irrigation season begins. The industrial pretreatment program completed its second year of activity with 22 non-sampling inspections being conducted. There were two violations by liquid waste haulers. Priorities for 1987 will be the development of defensible numerical effluent limits and the development of surcharge rates for those industries that exceed the BOD, TSS, and O&G limits. The sludge to land application program is proceeding with submission of a letter of intent sent to the State of Colorado for the application of sludge for experimentation and application. Sixty-five land owners have been surveyed for their interest in the program and their assistance in locating groundwater sampling locations installed by the Bureau of Reclamation as part of the salinity control program. Work is also progressing toward meeting the objective of billing commercial customers on the basis of the amount of water they use. Data processing is working with Ute water's data processing section on the interface problems between data processing equipment.

E. NEXT QUARTER

Work in progress during the first quarter as reported above should be completed. The end of the second quarter will see a long range repair and replacement program developed for re-started plant, buildings, piping and equipment. The Wastewater goals and objectives are attached.

1.	EVALUATE AND DECIDE ON A CROSS CONNECTION BACKFLOW PREVENTION PROGRAM	
	a) REVIEW EXISTING AND PREVIOUS WORK	501
	b) PROGRAM DEVELOPMENT	501
	c) CREATE BUDGET ESTIMATE	515
	d) REVIEW DATA FOR DECISION	1001
	e) RECRUITMENT	101
	f) IMPLEMENTATION	101
2.	IMPROVE THE DISTRIBUTION VALVING SYSTEM	
	a) ESTABLISH PRIORITIES FOR VALVE PLACEMENTS	301
	b) ESTABLISH PRIORITIES FOR VALVE REPLACEMENTS	301
	c) ESTABLISH REGULAR PROGRAM OF VALVE EXERCISING	301
3.	CONTINUE TO IMPLEMENT SMALL AND LARGE METER REPLACEMENT PROGRAM	901
4.	ASSIST IN IMPLEMENTATION OF 1987 CAPITAL IMPROVEMENT PROGRAM	
	a) DESIGN AND CONSTRUCTION OF INDEPENDENT AVE WATER LINE	501
	b) DESIGN AND CONSTRUCTION OF NEBA, ELM AND KENNEDY WATER LINES	900
	c) DESIGN AND CONSTRUCTION OF EAST, WEST AND NORTH SHERWOOD PARK WATER LINES	900
	d) DESIGNATION OF REPLACEMENT OF DEFECTIVE FIRE HYDRANTS	501
	e) DESIGN AND INSTALLATION OF PRESSURE RELIEF SYSTEM	501
	f) EXAMINATION OF IMPROVEMENTS FOR WANTEY HEIGHTS PUMP STATION	501
5.	INSURE, THROUGH OPERATION OF SEWER SYSTEM MAINTENANCE WORK ORDER PROGRAM, ADEQUATE REPAIR AND REPLACEMENT OF SEWER SYSTEM COMPONENTS	101
6.	INITIATE STREET PATCHING STANDARDS FOR WATER SERVICE CREWS	203
7.	IMPROVE WATER AND SEWER LINE INSTALLATION TECHNIQUES	301
	a) PURCHASE LASER FOR SEWER PIPE INSTALLATION	

WASTEWATER COLLECTIONS AND LIFT STATIONS

GOAL STATEMENT (1987 - 1991)

- a) CONTINUE EVALUATION OF SEWER COLLECTION SYSTEM CAPITAL NEEDS TO INSURE ADEQUATE AND TIMELY REPAIR AND REPLACEMENT

1987 OBJECTIVES

1.	DEVELOP, ALONG WITH THE WATER DISTRIBUTION SECTION, A SEWER COLLECTION SYSTEM MAINTENANCE WORK ORDER SYSTEM	101
2.	INITIATE SEWER FLOW MONITORING PROGRAM AND EVALUATE DATA FOR USE IN RATE ADJUSTMENTS TO SPECIAL DISTRICTS CONTRACTING FOR SERVICE AND FOR CAPITAL IMPROVEMENTS	101
	a) PROVIDE QUARTERLY STATUS REPORTS	301
3.	ASSIST IN IMPLEMENTATION OF 1987 CAPITAL IMPROVEMENT PROGRAM	
	a) PRIORITIZE, DESIGN AND CONSTRUCTION OF SEWER LINE REPLACEMENTS	1001
	b) PRIORITIZE, DESIGN AND CONSTRUCTION OF SUB-STANDARD MANHOLES	1001

WASTEWATER TREATMENT

GOAL STATEMENT (1987 - 1991)

- a) CONTINUED OPERATION AND MAINTENANCE OF TREATMENT FACILITIES TO MEET ALL STATE, FEDERAL, AND LOCAL REGULATORY REQUIREMENTS

- b) MAINTAIN ADEQUATE MAINTENANCE OF PLANT FACILITIES TO PROTECT LONG TERM CAPACITY OF PLANT
- c) CONTINUED COST EVALUATION OF PLANT OPERATIONS PROCESSES, AND EQUIPMENT
- d) CONTINUED IMPLEMENTATION OF THE INDUSTRIAL PRE-TREATMENT PROGRAM
- e) INITIATION AND EVALUATION OF THE SLUDGE TO LAND PROGRAM

1987 OBJECTIVES

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|----|---|------|
| 1. | IMPLEMENTATION OF OODR CONTROL MEASURES AS RECOMMENDED BY ARIK AND HDR | |
| | a) FINALIZE OODR CONTROL REPORT BY ARIK | 1215 |
| | b) PRIORITIZE NEEDS | 228 |
| | c) DESIGN OF IMPLEMENTATION PROCESS (DESIGN, MATERIALS, ETC.) | 331 |
| | d) IMPLEMENT 1987 PROGRAM | 331 |
| 2. | DEVELOP LONG RANGE REPAIR AND REPLACEMENT MAINTENANCE SCHEDULE OF PLANT BUILDINGS, PIPING AND EQUIPMENT | |
| | a) INVENTORY OF PLANT BUILDINGS, PIPING AND EQUIPMENT | 615 |
| | b) ESTIMATED LIFE WITH CURRENT DAM | 615 |
| | c) ESTIMATE REPLACEMENT AND REPAIR SCHEDULES | 615 |
| 3. | ASSIST IN IMPLEMENTATION OF 1987 CAPITAL IMPROVEMENTS PROGRAM | |
| | a) DESIGN OF 15TH ST. INTERCEPTOR | 1231 |
| | b) DESIGN OF SCENIC SCHOOL INTERCEPTOR | 1031 |
| | c) MONITOR NEED FOR REDLANDS VILLAGE LIFT STATION AND FORCE MAIN | 331 |
| | d) IMPLEMENTATION PROGRAM FOR SLUDGE TO LAND APPLICATION | 331 |

SANITATION DEPARTMENT

GOAL STATEMENT (1987 - 1991)

- a) DEVELOPMENT OF A SANITATION DIVISION AND FUND TO A LEVEL OF PERFORMANCE WHICH ALLOWS TO PROVIDE EXPECTED LEVELS OF SERVICE WHILE MAINTAINING EQUIPMENT, FAIR COMPENSATION TO EMPLOYEES, ADEQUATE TRAINING OF SUPERVISOR AND EMPLOYEES, AND FINANCIAL STABILITY OF FUND

1987 OBJECTIVES

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|----|--|-----|
| 1. | DEVELOP ROUTE EVALUATION AND SELECTION PROGRAM | |
| | a) EXAMINE ROUTE PROGRAMS, COMPATIBLE WITH EXISTING P.C. SYSTEM | 228 |
| | b) PROGRAM SELECTION | 213 |
| | c) PROGRAM LOADING AND TESTING | 331 |
| | d) ROUTE DETERMINATION AND IMPLEMENTATION | 415 |
| 2. | RECEIVE AND PLACE INTO SERVICE FOUR DIESEL, HIGH-COMPACTON TRASH TRUCKS | |
| | a) RECEIVE | 430 |
| | b) INSPECT | 430 |
| | c) ACCEPT | 430 |
| | d) PREPARE PREVENTATIVE MAINTENANCE PROGRAM | 430 |
| | e) PUT INTO SERVICE | 615 |
| 3. | INITIATE A DRIVER TRAINING PROGRAM FOR EQUIPMENT OPERATION AND FOR HANDLING HAZARDOUS WASTES | 615 |
| 4. | IMPLEMENT SANITATION MARKETING PROGRAM TO INCREASE COMMERCIAL CUSTOMERS BY 15% | |
| | a) DRAFT PROGRAM | 331 |
| | b) COMPLETE REVIEW BY BENETTI AND BARTON | 331 |
| | c) IMPLEMENT | 331 |

PLANNING

ACQUIRE OR ADD BY ACQUISITION OF WATER TOWER INCLUDES PORTABLE TOILET