

CITY OF GRAND JUNCTION, COLORADO
MEMORANDUM

Reply Requested
Yes No

Date
Feb. 7, 1986

To: ~~(Fax)~~ Jim Shanks From: ~~(Fax)~~ Ralph Sterry 

Subject; 201 Boundary

1. The County has the authority to change the boundaries by notice to the State Health Department describing area desired to be included.
2. Establish a zone change of flood plane properties which will remove from the existing 201 the same volume of density and consequent sewer use as the partial which is to be brought into the 201 from the fringe area. Also property which is proposed to come in from the fringe area is zoned to restrict development to equal the volume which was removed.
3. This should be reviewed by the City Council and County Commissioners, then sent to the State to the attention of Mr. Greg Parsons who will review and approve or disapprove the application for the State.
4. The County now has a zone requirement established in their regulations to cover this type of action.
5. Any fringe area adjustment cannot exceed or cause the 201 area to exceed the original population projection established and approved by the State and E.P.A.
6. County Planning should be contacted when a land owner or development desires to be included in the 201 area so they can evaluate the impact and look at unuseable areas which can be deleted to accommodate the potential change.

cc: Jerry O'Brien
File

201 BOUNDARY CHANGES
INTERCEPTOR SEWERS PROJECTION

Areas where added interceptors can be included are as follows:

1. "Scenic School Interceptor" running from Highway 340 and Manzana Drive west along the Redlands Water and Power Tailrace Canal to the Goat Draw Interceptor. This interceptor has the capability of picking up about 600 customers at an estimated cost of \$408,600.00. Scheduled for design in 1987 and to be built in 1988. Estimated cost per tap of \$848.00.
2. South Redlands and South Camp Road to Buffalo Drive. This will pick up the Wingate School, 450 students x .08 = 36 equivalent taps but very few customers. However, development can be expected in future years in excess of 50 homes. Estimated cost of \$150,000.00. Estimated cost per tap of \$1,745.00.
3. 22 Road east and north to Sand Castle Drive, from 22 1/2 Road and Redlands Court north to Saddlehorn Road, then west and north to Sand Castle Drive where a lift station and force main must be installed to pump back into Loma Rio Subdivision which flows into Goat Draw Interceptor. The Loma Rio outfall line also may need to be resized to accommodate the added flow which would be added from this larger west area. The estimated customer base from 22 1/2 Road to 22 Road, from Sand Castle Drive to the south side of Broadway is 285 taps and would cover one of the areas of most need at the present time. Estimated cost, due to a pump station and two separate line systems, is extremely high. 285 potential taps at an estimated cost of \$1,000,000.00 or a cost of \$3,508.00 per tap.
4. Broadway from 2295 Broadway west to Goat Draw and east flow from 2295 Broadway to Alcove Drive, then down 23 Road to intercept with Scenic School Interceptor. 2295 Broadway to Goat Draw short extension, estimated cost of \$79,200.00, from 2295 Broadway to 1/2 mile along Broadway, then an interceptor down estimated distance of 1 mile, 7,920 feet. Estimated cost of \$79,200.00. *He for flunks?*
RV of something?
5. Gravity sewer and pump station at Wildwood Drive a Wildwood Court and west along South Broadway to ab Add pressure main back east along South Broadway f Draw Interceptor. Estimated 15 taps where septic tank systems are failing. Estimated cost of \$90,000.00 by installing used surplus lift station.
6. Gravity sewer extended into Dressel Drive, estimated 1/4 mile. Estimated cost at \$39,600.00. Gravity into Ridges Lift Station.
7. Bella Road, Country Club Park, gravity into Ridges Lift Station. Estimated 1 mile of gravity sewer line at estimated cost of \$159,000.00.
8. Little Park Road down Rosevale Road to end of Red Lane at Monument Canyon and Colorado River Intersection. Install pump station and force main under Highway 340 into Power Road Pump Station. 2.5 miles of gravity line and pump station with 1,000 feet of pressure main at estimated cost of \$431,000.00.

See attached map of boundary changes and interceptor general alignment.

The County must play a strengthened role in reviewing the Sewer Plant and line capacities with regard to land use patterns and the aggregate growth. Also the County needs to play a greater role in financial planning of the Plant and line systems as to overall maintenance and management of the Sewer Business (County owned) since they are new to this service commitment.

Clearly, an organizational framework is needed in the County to make Sewer Service decisions (County Sewer Board).

1. Budgetary responsibilities review of annual budget by County.
2. Policy making authority.
3. Liability.
4. County role in providing urban service.
5. Financial Commitment of debt and fund expenditures.
6. Sewer service extension policies and impacts.
7. Coordination with districts and municipalities as service lines are extended.
8. Monitor of line capability and loading rates in relation to development and Plant capacity, as well as adequate line size to handle present and future flows.
9. Zoning reviews to determine it's viability in service constraints.

At the present time, there are significant areas inside the 201 boundaries which are served by septic tank systems. A large number of these systems are 20 or more years old or are located in deficient soil conditions. Therefore we can safely assume they will fail and require replacement or repair. Due to this possibility, a line system plan for each drainage basin needs to be adopted and priorities set based on:

1. Close vicinity to existing interceptor sewers.
2. Number of people involved and problems noted.
3. Cost of interceptor lines in relation to cost recovery through connections and sewer use fees.
4. Public opinion.
5. Public capability to pay for a collector system and hookup to the interceptors.

Map attached shows proposed approximate new interceptor lines which could serve areas now on septic tank service.

Sewer Use Policy #6:

1. New subdivisions outside the 201 area must connect to an available public sewage disposal system, an approved private system or use septic systems conforming to local and State laws.
2. New development inside the 201 area must connect to a sewer line providing 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.
4. Septic systems are recognized as appropriate for low density residential development and small scale isolated commercial development. Mesa County Land Development Code sets a guideline of 1 dwelling per 2 acres as a minimum lot size for septic system.

208 Program Relates to:

1. Land use planning.
2. Water quality/quantity monitoring.
3. Environmental inventories.
4. Wastewater Treatment Facilities planning.
5. Solinity control programs.
6. Nonpoint pollution sources.
7. Management, regulatory and financial programs.

Summary of 208 program effort should be to develop tools and procedures for coordinating and utilizing these activities for regional decision making.

In the mostpart the afformentioned items have been implemented or are in the process of implementation.

201 planning area was set to encompass the basic area of west boundary 19.5 Road South of the river taking in the entire Redlands area, then south boundary of about H Road taking in Orchard Mesa proper. East boundary on Orchard Mesa of 30 Road north of the river at D $\frac{1}{2}$ Road and 33, then north to basically F 3/4 Road, then west taking in the airport with a jog back on 26 $\frac{1}{2}$ Road to run the alignment of I-70 to the I-70, 6 & 50 intersection, then south and west crossing the river to meet the west boundary on the Redlands at 19.5 and approximate alignment of G Road. This boundary did not take in Clifton lagoon areas or any of Clifton proper and it did exclude Paradise Hills along with all the areas along the northside of I-70 which now desires to be served by the sewer systems. Population densities on the south boundary areas and flood plane areas along the Colorado River, however, can be zoned to regulate future building and allow additional fringe areas along the north boundaries to be brought into the service area.

201 area population 1994 HDR projection 111,500

201 area optimistic projection of 67,879

201 area flow calculation population existing = NHPQ projection 46,390

201 area flow calculation population (County projection existing 64,715)

Plant is presently operating at 54% of design capacity.

201 update Nichols report and the current RFP to do an update of the sewer systems map, drainage basin areas, future sewer interceptors and revision of the 201 boundary to exclude land from the existing area and include land which is currently developed or will develop in the near future will satisfy the need for some time into the future.

One requirement of the 201 map update should call out that a mylar should be supplied to the City Engineering Department so as to allow our engineering section to continuously update the maps as new line systems are installed.

FACILITIES MANAGEMENT PLAN

By agreement with Mesa County (as owner of the Persigo WWTP and as current EPA grantee), the City of Grand Junction (as co-owner of the Persigo WWTP site and as former EPA grantee) is the designated Manager-Operator for the Persigo WWTP, with full responsibility for both NPDES permit and grant compliance.

The City exercises the power to approve, condition or deny any new sewer connection within the 201 Service Area Boundary, with the exception of Clifton Sanitation Districts Nos. 1 and 2. (They are not contributor/connectors.) This power is exercised by requiring "sewer clearance" (including tap fee payment) by the City Utilities Department prior to issuance of any building permit required by the City or the County, or simply by payment of sewer tap fees prior to conversion from septic systems.

The new treatment plant will operate under the City Sewer Fund, which is a discrete and self-sustaining fund in which revenues (through tap fees and service charges) are set by the City and the connector districts in order to meet but not exceed expenditures. The Fund is administered by the City on behalf of all sewer customers. The Sewer Fund budget is annually ^{prepared} set by the City Utilities Department and is adopted by the City Council and County Commissioners. All non-City charges are scaled to the City rate.

By agreement with connector districts, the City bills every sewage customer directly at rates varying according to the particular district. The actual rates depend upon responsibility for maintenance, collection system installation and rehabilitation, and other factors.

The City has not allocated to the connector districts specific volumes of sewage which it will transmit through its collection system or accept at the WWTP, nor has it allocated specific percentages of treatment capacity. At present the only limitations are physical, determined by the size of the connecting interceptors and their maximum flow rates. In the future, permanent interceptor flow monitoring sites will be established at locations to be identified in the current Grand Junction Sewer System Analysis. Until such time as collector or treatment capacity is approached, there are no plans to allocate sewage volumes or treatment capacity to the connectors.

Both the billing program and the development process ~~therefore~~ dictate a direct relationship for normal purposes between the City as M/O and the sewage customers in the Persigo WWTP service area. Relationships with connector districts ^{tap} will focus primarily upon rate structures, maintenance, pretreatment program development, and I & I reduction.

The City is developing the Industrial Pretreatment Program, which will require expansion of its current authority to enable it to physically interact directly with significant industrial contributors in any connector jurisdiction. The operating agreements with connector districts are currently being reevaluated for necessary revisions, in addition to rate structure revisions.

A storm and sanitary sewer separation study and an infiltration and inflow study are being conducted as part of the Sewer System Analysis referred to above, which has been attached as # _____. Connectors are contractually bound to reduce I and I where necessary. The sewer system study will identify potential sites and feasibility of storm sewer separation and I and I reductions.

A 201 Facilities Plan update is currently being scoped for proposals. This plan together with Sewer System Analysis recommendations will provide the methodology and mechanisms to monitor treatment and collector capacity utilization. An additional feature of this plan will be to accurately predict impact and costs, and develop criteria, for 201 service area expansions in the future. The result of this study will be presented to the Mesa County Commissioners for their approval.

- reference to decommissioning package plants?
- " " inactive status of Railhead, etc.