

GRAND JUNCTION SEWAGE TREATMENT PLANT

	Present Capacity	5.80	M.G.D.*
	Present Load (Avg. daily flow)	<u>4.40</u>	<u>M.G.D.</u>
	Present Excess Capacity	1.40	M.G.D.
Committed to City Plant			
	from existing districts	.373	M.G.D.
	from approved subdivisions (not developed)	.547	M.G.D.
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	Sub Total	.921	M.G.D.
Potential Sewage from under used zoned land in the city (commitment)			
		.249	M.G.D.
	-----		
	Sub Total	1.17	M.G.D.
Possible expected requests from subdivisions presently in some stage of conceptual review - city & county			
		.225	M.G.D.
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	TOTAL	1.395	M.G.D.
	Total recognized commitments		<u>+ 1.395 M.G.D.</u>
	Total flow and commitments		5.795 M.G.D.
	Percent of capacity		99.6%

\*Design hydraulic capacity is 7.3 M.G.D. Allowance for recirculation and efficiency to meet effluent standards leaves a practical capacity of 5.8 M.G.D. See Page 20 of Facilities Plan, City of Grand Junction, N.H.P.Q. Sept. 2, 1975

TABLE I

Potential sewage increases to the city treatment plant.

1. Developed areas discharging to, the city plant:  
(See Attachment A)

	Number of Taps	Estimated Population	Estimated Sewage M.G.D.
Orchard Mesa Sanitation District	800	2,800	.280
Paradise Hills Collector	175	613	.0613
Western Hills Mobile Home Park	92	322	.0322
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Sub Total	1,067	3,735	.373

2. Subdivisions that have final approval (units/taps not on sewer):

In City (See Attachment B)	968	3,388	.339
Out City (See Attachment C)	594	2,079	.208

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Cumulative Sub Total	2,629	9,202	.921
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3. Under-used zoned land:

In the City- with sewer service (See Attachment D)		2,488	Projected Sewage M.G.D. .249
Out city subdivisions having only preliminary sketch approval (See Attachment E)	642	2,248	.225
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TOTAL			.921      .474

NOTE: M.G.D. - Million Gallon per day  
Projections are based on 3.5 persons per unit and 100 gallons  
of sewage per capita per day.

ATTACHMENT A

1. Areas committed to the City of Grand Junction treatment plant - presently contracting for sewer line extension.

ORCHARD MESA SANITATION DISTRICT

Taps	Population
800	2,400

2. Subdivisions committed to the City of Grand Junction treatment plant - have existing plants but will send to city for treatment.

	Units Approved	Units(taps) yet to be completed	Additional Population*
Western Hills	92	-----	322
Paradise Hills			
Filing #1	37	-----	130
Filing #2	42	-----	147
Filing #3	41	-----	144
Filing #4	55	3	192
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Sub Total	267	3	935

\* at 3.5 persons per unit

ATTACHMENT B

Potential sewage load from approved subdivisions within the city limits of Grand Junction - with commitments to city treatment sewage.

	Total Units	Units yet to be Completed	Additional Population
1. Barger	3	2	7
2. Walnut Park	70	70	245
3. Park Place	4	4	14
4. Paterson Gardens	40	40	140
5. Crossroads Colorado West	40	40	140
6. Horizon Park Plaza	25	24	84
7. Spring Valley #3	34	34	119
8. Spring Valley #2	48	10	35
9. Cedar Terrace #1	26	26	91
10. Cedar Terrace #2	44	44	154
11. Kennedy Cove	7	7	24
12. Tech del Sol	44	44	154
13. Intermountain Bible College	120	120	420
14. Landing Heights Nursing Home	74	74	259
15. La Villa Grande	118	118	413
16. Partee Heights	67	9	32
17. Hillcrest Manor	47	5	18
18. Rothhaupt	45	15	52
19. Franklin Avenue Apartments	115	115	403
20. Parkview	122	30	105
21. Lamplight Park	74	74	260
22. Lamm	33	19	66
23. Ormsbee	14	8	28
24. Teller Arms	--	15	52
25. Park Terrace	40	15	53
26. Mesa Gardens	--	4	14
27. Epps	--	2	7

TOTAL

968

3,389

## ATTACHMENT C

Potential sewage load from approved subdivisions outside city limits of Grand Junction.

<u>Subdivision Name</u>	<u>Units Approved</u>	<u>Units (taps) yet to be completed</u>	<u>Additional Population</u>
Darla Jean	99	83	290
10-4 Homestead ✓	40	40	140
Cline Filing #1	11	11	38
Eastmoor	52	47	164
Kenland	4	4	14
Centennial Filing #1	118	118	413
Village East Filing #2	32	16	56
Heatheridge Estates	94	94	330
Meadowood	38	38	133
C Road Limited	26	26	92
Fruitwood Filing #2	10	3	10
Fruitwood Filing #3	11	11	38
Fruitwood Filing #4	43	18	63
Pine Estates Filing #2	11	9	32
Pond's Orchard Filing #2	12	3	10
Pond's Orchard Filing #3	20	17	60
Central Village	72	49	172
Farley-Swahley- Mead	27	7	24
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Sub Total	720	594	2,079

ATTACHMENT D

Potential sewage loads from zoned, unsubdivided land in the City of Grand Junction.

	<u>Projected Population</u>
Bookcliff Enclave Annex	400
Brodak Enclave Annex	280
Spring Valley Area	430
El Corona Bulk Development	20
Orchard Avenue Annex	210
Lakeside	<u>88</u>
	1,428 = .143 M.G.D.

Approximate number units possible  
with a change in use allowed  
by zoning where lesser uses  
are existing presently

1,060 = .106 M.G.D.

ATTACHMENT E

Potential Sewage loads from subdivisions being considered but not yet approved, outside the city limits but will be committed to the City of Grand Junction treatment plant.

<u>Subdivision</u>	<u>Status</u>	<u>Total Units Proposed</u>	<u>Projected Population</u>
4 Loma Linda	Preliminary	78	273
29 Shady Villa	Preliminary	22	77
27 Strawberry Acres	Preliminary	92	322
10 Cline	Preliminary		
(Minus Cline #1 Final - 11 lots)		41	144
14 Ox Bow	Preliminary	137	480
16 Trading Post	Preliminary	48	168
18 Apricot Park	Sketch	53	185
22 Byars	Preliminary	8	28
21 Pond's Orchard		60	
--- Filing #1			
--- Filing #2		-42	
--- Filing #3			
		<hr/>	
		18	63
19 Fruitwood		160	
--- Filing #1			
--- Filing #2		-79	
--- Filing #3			
--- Filing #4			
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		81	284
15 Village East		107	
--- Filing #1		-43	
--- Filing #2			
		<hr/>	
		64	224
Sub Total		642	2,248

## GRAND JUNCTION TREATMENT FACILITY

1. Why the numbers presented now differ from the previous report.
  - A. The numbers of persons per unit was corrected to the State Health Department guideline of 3.5 persons per unit rather than a lesser number;
  - B. The sewage generated per capita was reduced from 182 gallons per capita per day (gpcpd) to 100 gpcpd - again according to State Health Department projection requirements.

Note: some areas of the City of Grand Junction presently on sewer have a relatively high infiltration rate and some other areas have storm sewers that feed into the treatment plant. It should be realized that a high per capita flow rate as determined by dividing the average flow at the plant by the population served cannot be projected. New areas will not dump storm waters into the sewage treatment plant. Therefore, the lower per capita flow is justified in the projections.

2. With the exception of the requests on the Redlands, in Fruita, and in the areas served by Clifton Sanitation Districts 1 and 2, all the requests before you have been counted before.

That is to say - all approved subdivisions have been considered in the projections for commitment.

Further, all subdivisions presently having only preliminary or sketch approval have been considered and included in the commitments.

Finally, all zoned land in the city that is not being proposed for subdivision but could be subdivided has been considered and all the zoned land in the city that is not being used to the highest density allowed by a particular zone has been considered at the higher (more dense) use and projections have been made for sewage load increases.



3. A growth rate of 6 percent per year in the service area may be high. In fact, the annual growth rate inside the city limits and in the nearby area has been closer to 5.4 percent for the last six years, since the 1970 census.

However, by using the higher growth rate, two things are shown:

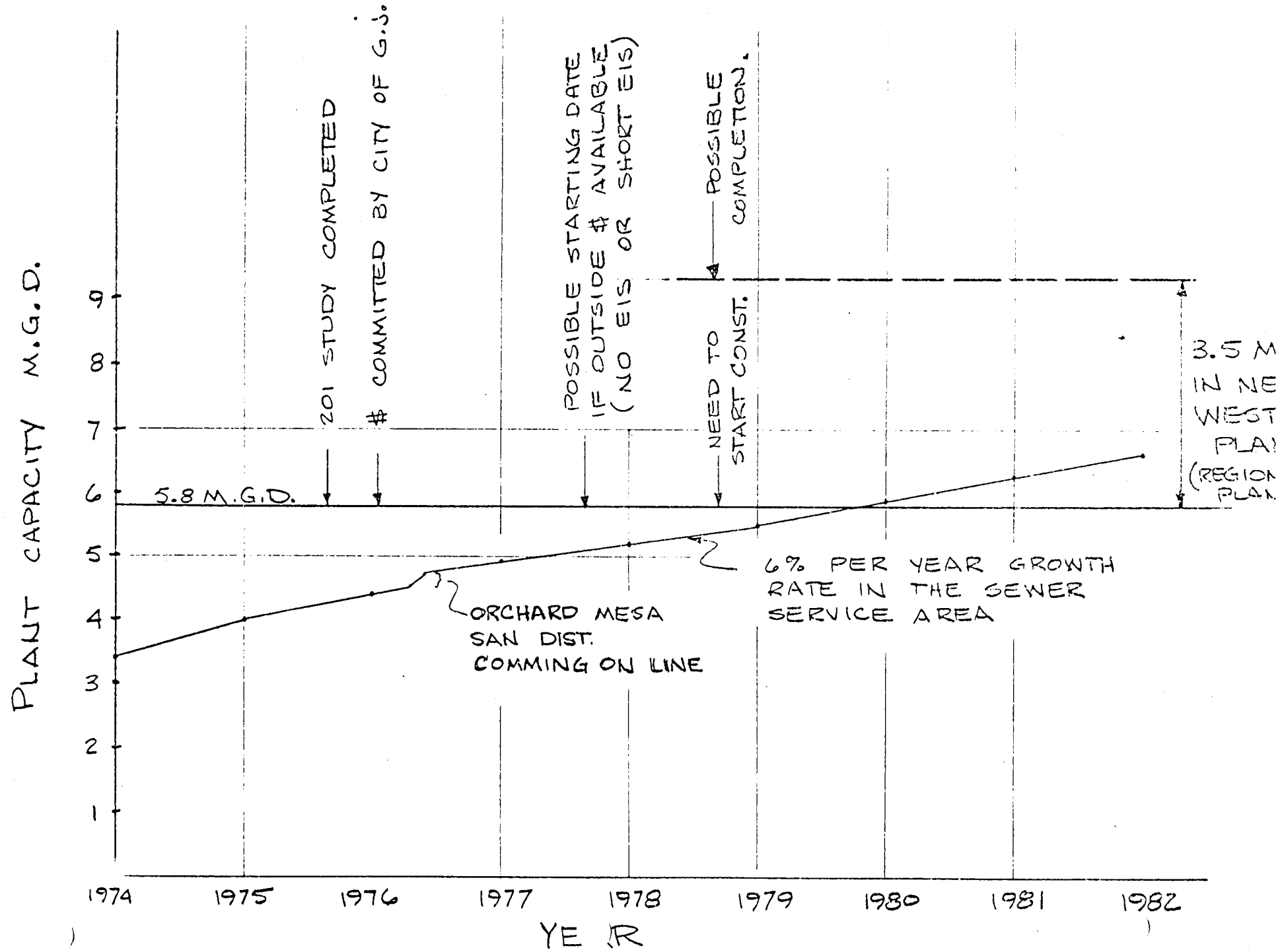
- a. The present plant has capacity to absorb the new, expected growth through most of 1979, or three years lead time;
- b. The decision makers are appraised of the situation and can, in fact, plan for sewage treatment facility expansion, allowing for themselves a cushion for unexpected delays.

4. Re: The Graph.

Ideally the city could get matching funds, could get under way with engineering and construction without an EIS. Given the above assumptions, a start construction date of early or mid 1977 is possible. The City has earmarked funds for the Regional Plant.

The most drawn out process could involve an EIS, mixed funding or a lack of funding. Based on the projections, the plant should be under construction by late 1979.

# GRAND JUNCTION



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