

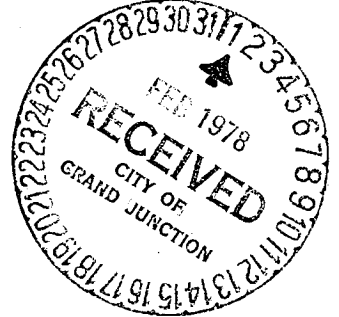


**COLORADO DEPARTMENT OF HEALTH**

4210 EAST 11TH AVENUE • DENVER, COLORADO 80220 • PHONE 388-6111

Anthony Robbins, M.D., M.P.A. Executive Director

January 30, 1978



Mr. Alan Merson, Regional Administrator  
Region VIII  
U.S. Environmental Protection Agency  
1860 Lincoln Street  
Denver, Colorado 80203

Re: Grand Junction 201 Facilities Plan

Dear Mr. Merson:

At its meeting on January 4, 1978, the Colorado Water Quality Control Commission approved the Grand Junction 201 Facilities Plan, thereby granting Step II design funds for a 12.5 mgd mechanical waste treatment plant. With the approval action, however, the Commission still expressed a general dissatisfaction with the plan, in particular with regard to the adequacy of the consideration of land treatment, of opportunities for salinity improvement and of general water quality improvement in the Colorado River.

1. Land treatment - It would appear that in one of the most highly productive agricultural areas of the state, a viable cost-effective land treatment alternative could be formulated. The Commission's attempts to foster such an alternative included passing a motion in July, 1976, that the original Step I was inadequate as far as land treatment was concerned, and the funding of a pre-design report was conditioned on further study with particular emphasis on land treatment. The resulting report of October, 1977, again chose a mechanical plant. The Commission felt that the report did not present sufficient detail to analyze the high costs (and therefore the non-cost-effectiveness) of the land treatment alternative, so the Commission requested additional information. These were supplied in November and December 1977 supplements. Among other things, the Commission questioned:

- a. The high cost of land: \$3500/acre would appear to include development potential, yet this land would be below a regional treatment facility. It is unlikely

that the Commission would approve a site for sewer lines, treatment facilities, or a lift station when there is plenty of developable land upstream from the plant.

b. Reservoir lining: About \$10 million is added to the land treatment alternative for reservoir lining; no demonstrated salinity or public health reasons are presented in the report.

c. Non-optimization of the land treatment alternative; for example, no credit is given for the value of water rights purchased with the land. Since the Grand Valley Canal is the major water right on this section of the Colorado River, Cameo is the last major call on the river in Colorado with only minimal demands below Grand Junction, the water rights released by applying effluent to the land could potentially have a substantial value for the City. This potential was not investigated (see attached letter to the City of Grand Junction).

2. Reduction of salinity in the Colorado River - One of the causes of the salinity is the inefficient use of irrigation water; that is, the percentage of water actually used by crops, in comparison to the amount diverted from the river, is low. A substantial portion of the water diverted seeps from canals, laterals and ditches and runs off of the surface, picking up salts and transporting them to the river. Experts say that a non-structural solution is best for the Grand Valley, but it is difficult to change traditional farm management practices of the individual farmer and ditch company. A treatment facility using several thousand acres as a land treatment site could use the practices recommended by Colorado State University, the U.S. Bureau of Reclamation, and the Soil Conservation Service for salinity control. It could be a model for private agriculture to follow. In addition, the sewage is transported to the treatment facility in pipes; after adequate treatment it can be applied directly to the land. This would reduce the former seepage losses (and hence the salinity loading) from the lengthy canal delivery system from the river to the farm.

3. General water quality improvement of the Colorado River - The chosen alternative will treat the effluent to secondary standards only which still leaves considerable amount of pollutants in the effluent, such as ammonia. Exchanges whereby effluent would be discharged into irrigation ditches was held out as a possibility,

Mr. Alan Merson  
January 30, 1978  
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but it is not an integral part of the facility plan. The Commission requested that negotiations begin with the ditch companies. According to the plan report, however, the ditch companies are unwilling to take effluent at the present time.

Having held up the Step II construction grant for over a year and finding that it is extremely difficult to get a cost-effective land treatment alternative out of a municipality which is not interested in going that route, the Commission approved the plan. Another major factor was the energy-related growth pressures in the Grand Junction area, with the present treatment plant heading towards 100% capacity in the near future. However, via the attached letter, the City was advised that if, after further review, it wishes to come back to the Commission within the next few months with a project that would incorporate land treatment, the Commission would reconsider the matter.

The Commission anticipates that the EPA review process will also evaluate the Grand Junction land treatment alternatives in view of your national policy on this matter, as well as your involvement in the salinity issue on the Colorado River. We would urge that such review be expeditious as well as thorough because of the growth pressures which exist in the Grand Junction area.

Regarding land treatment in general, the Commission and the EPA have similar goals, yet due to internal and external obstacles, these goals are not being implemented. Perhaps a joint EPA/State task force should be formed to remove the real and perceived obstacles to land treatment in Colorado.

Sincerely yours,

  
Evan D. Dildine, P.E.  
Technical Secretary  
Water Quality Control Commission

RMW:rr

Attachment



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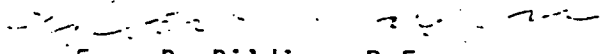
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