



Board of Directors  
Colorado River Water Conservation District  
PO Box 1120  
Glenwood Springs CO 81602

July 13, 1998

RE: Eagle River Instream Flow analysis

Dear Board:

This letter briefly summarizes an investigation of the mix of augmentation water sources needed to protect the River District's contract water users (allottees) in the Eagle River basin. The investigation evaluated the seasonal timing and estimated duration of potential instream flow calls on the Eagle River. By knowing the timing and duration of potential calls, the mix of Eagle Park and Wolford Mountain reservoir water needed to provide reliable legal water supplies for the District's contract users can be determined. Knowledge of the mix is important in assessing the District's total contracting ability and in establishing pricing policy.

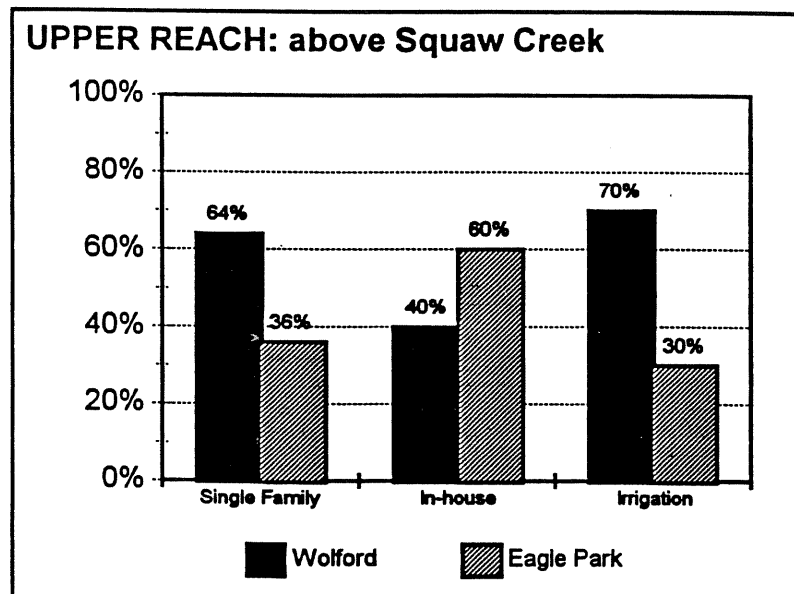
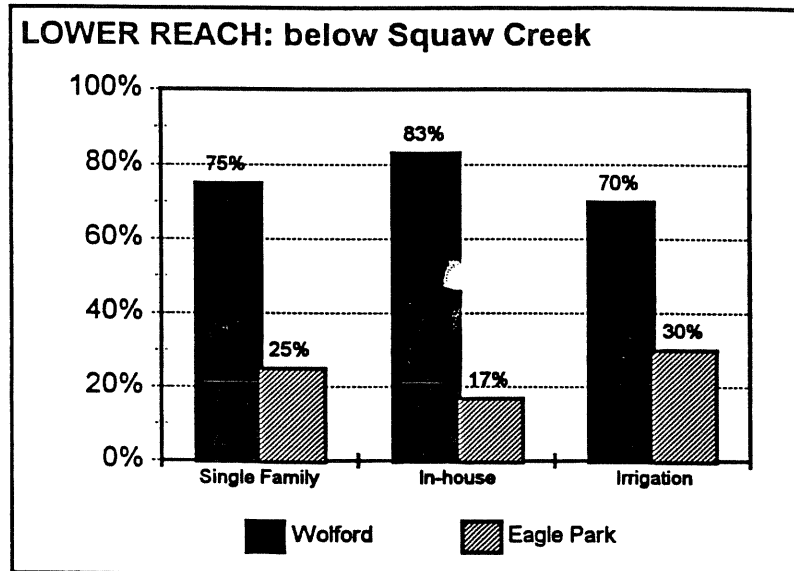
#### CONCLUSIONS

- In the lower Eagle River basin, from the mouth to Squaw Creek, stream flow may fall below decreed instream flows in **August and September** of dry years. In-basin augmentation is needed for these two months.
- In the upper Eagle River basin, above Squaw Creek, stream flow may fall below decreed instream flows in **November - March** and in **August and September** of dry years. In-basin augmentation is needed for these seven months.
- The amount of augmentation water required from Eagle Park Reservoir will depend on the mix of water uses and the location of the allottee. For the two identified river reaches examples of possible mixes are:
  - 1) A typical single family home with 5,000 square feet of irrigation,
  - 2) A 100% in-house use,
  - 3) A 100% irrigation use.

These three mixes represent:

- 1) A representative contract (single family home),
- 2) A user whose depletions are uniform throughout the year (in-house only use),
- 3) A user whose depletions occur in the summer and fall (irrigation only use).

Augmentation requirements by source for the various mix types are:



- The figures show that the mix of water needed is dependent on use type and location. Various allottees will have differing water requirements. However, the augmentation mix needed will almost always fall between the in-house mix and the and the irrigation mix shown on the figures.

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- Below Squaw Creek allottees will require 30% (or slightly less) Eagle Park water and 70% Wolford water.
- Above Squaw Creek the mix required is highly dependent on use type, ranging from 30% to 60% Eagle Park water.

#### RECOMMENDATIONS

- For allottees below Squaw Creek who do not enter into a bulk water contract, a blended water pricing structure representing a mix of 30% Eagle Park water and 70% Wolford water is recommended.
- For allottees above Squaw Creek bulk water contracts only are recommended based on the variability of required mix. These allottees would be responsible for their own Water Court proceedings.

If you have any questions please give me a call.

Sincerely,

RESOURCE ENGINEERING, INC.

John M. Currier, PE  
Water Resources Engineer

JMC/jmc  
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cc: Eric Kuhn  
Dave Merritt  
David Halford, Esq.