



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RIGHTS

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March 26, 1996

D. Brad Gardner
Utah Lake/Jordan River Commissioner
7555 S. Woods Lane
Midvale, Utah 84047

Re: Reporting Procedures

Dear Brad:

As you know, Utah Lake evaporation losses are estimated by our office to account for water under the Interim Utah Lake Distribution Plan. Since our method of calculating evaporation is not the same as your method, we feel there is a need to coordinate with you to eliminate potential conflicts in the reports. After reviewing the options, we are hereby requesting that you cease reporting Utah Lake evaporation and calculated inflow in your annual reports until otherwise directed by this office. Evaporation and inflow records will be based on our calculations under the Utah Lake Distribution Plan and will be available for your use if needed.

We encourage you, as commissioner, to continue measuring pan evaporation at the Utah Lake Lehi station and that you report only the raw pan evaporation data (beginning November 1995). Your data will enable future comparisons between pan evaporation and the estimates reported by our office.

Our method of estimating evaporation has evolved in past years and will likely continue to evolve in the future. During the period from plan implementation until October 31, 1995, we used the SCS Modified Blaney-Criddle method with a coefficient of 1.35 and temperature data from the Provo-BYU weather station. Beginning November 1, 1995, we used monthly calibrated coefficients (as reported in research report 145) and the temperature data from the Utah Lake Lehi weather station. We are attempting, and will continue to use our best efforts, to provide the most accurate estimate of evaporation possible since it impacts water distribution under the management plan.

The enclosed graphs compare evaporation using our present method with historic data from the commissioner reports. As shown, the calibrated Blaney-Criddle method produces slightly lower estimates than those you have reported. The available temperature data for the Lehi station determined the time period of these comparisons.

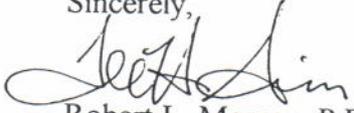
One known potential source of error in evaporation estimates is that they are based on conditions at the north end of the lake. Temperatures at Palmyra, located at the southern end of the lake, are somewhat warmer than those reported at the Utah Lake Lehi weather station. Perhaps future studies

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should be directed toward measuring evaporation at different locations on or around the lake in order to determine how well the conditions at Lehi represent the entire lake surface.

Please feel free to contact this office at any time if you have any questions.

Sincerely,

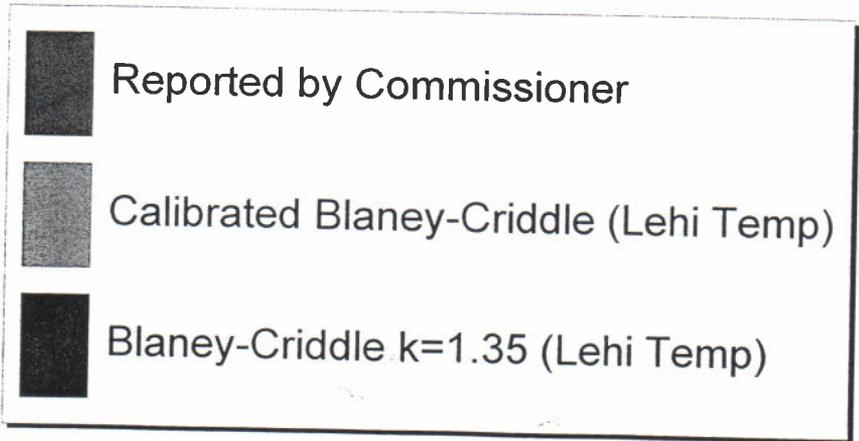
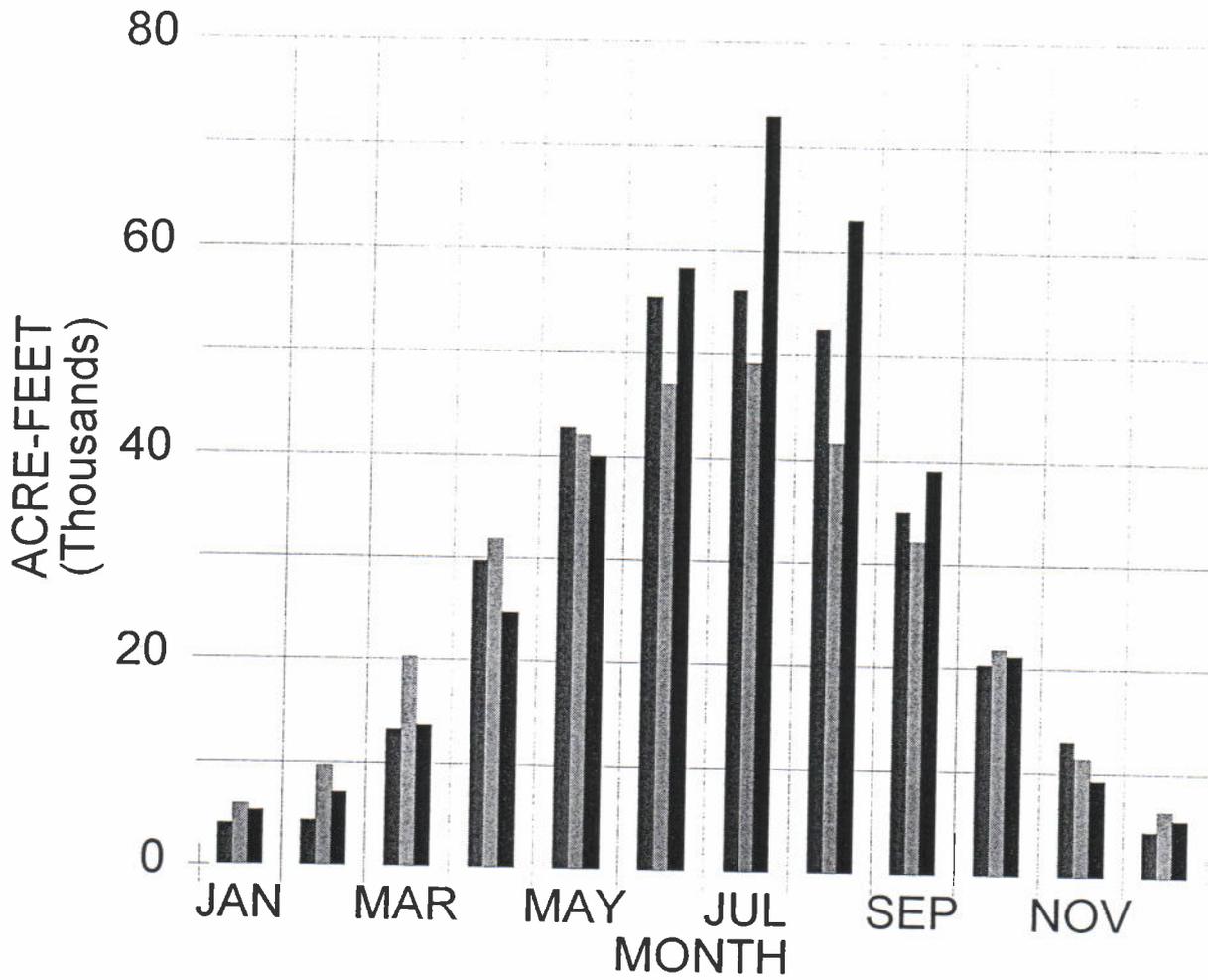


Robert L. Morgan, P.E.
State Engineer

RLM:BA:bd
Enclosures

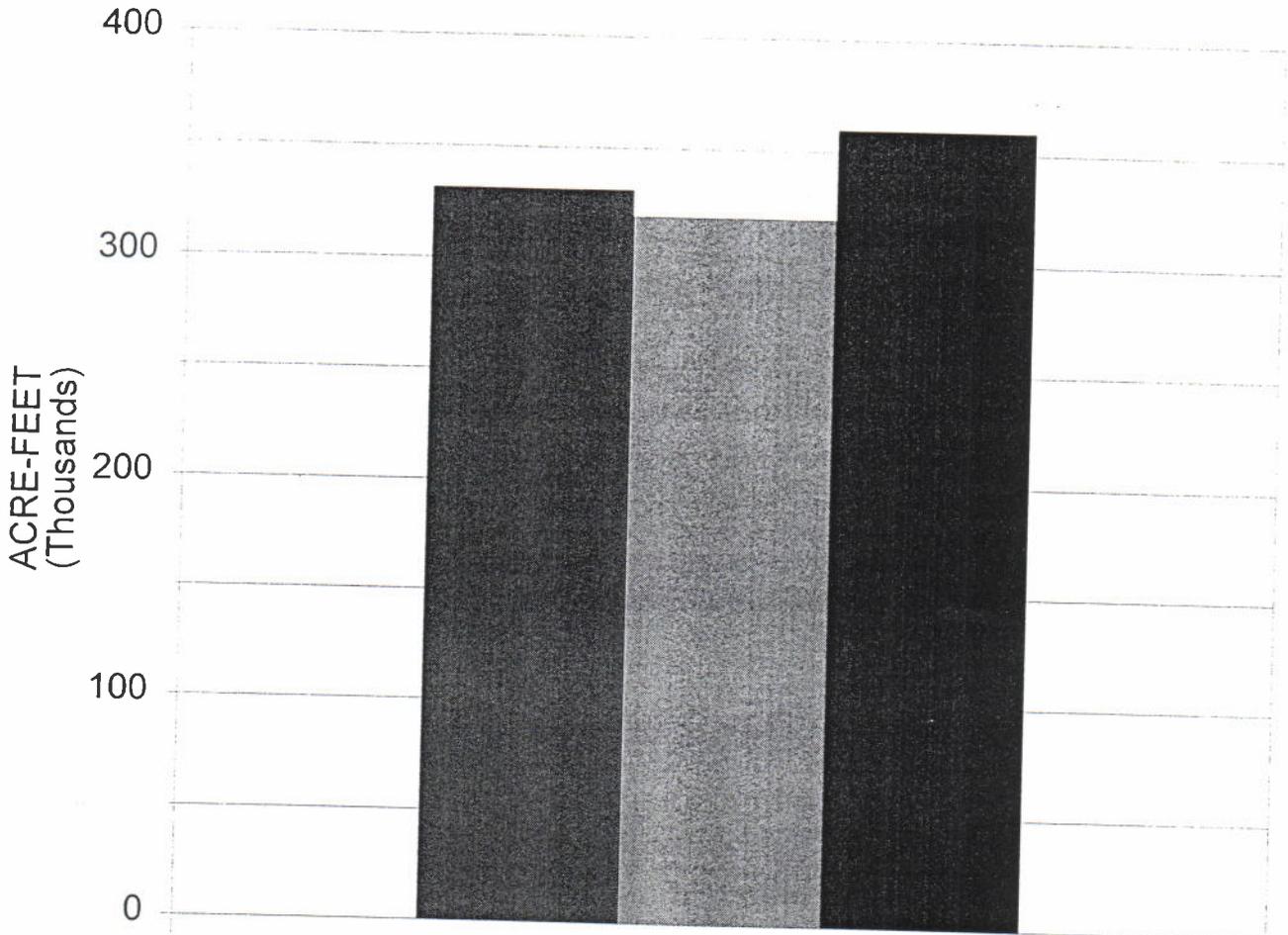
UTAH LAKE EVAPORATION

15-YEAR (1978-1992) MONTHLY AVERAGES



AVERAGE ANNUAL UTAH LAKE EVAPORATION

15-YEAR PERIOD (1978-1992)



Daily max and min temperatures reported at the Utah Lake Lehi weather station were used in Blaney-Criddle methods.

- Reported by Commissioner; 331,267
- Calibrated Blaney-Criddle; 319,380
- Blaney-Criddle $k=1.35$; 360,093