ADMINISTRATOR'S MEMORANDUM
Application Processing Memo#60
Adjudication Memo # 44

To: Water Management Division
           Adjudication Bureau

From: Norman C. Young

Re: Irrigation Diversion Rate for Turf Grass in Public Areas

Date: August 15, 1996

Irrigation of turf grass in public areas such as golf courses, parks, schools, and cemeteries often requires that the irrigation occur during the night or early morning hours. Since water cannot be applied continuously over a 24-hour period, the irrigation diversion rate is often higher than the statutory standard of 0.02 cfs per acre.

In some cases, a holding pond or regulation pond may eliminate the necessity of diverting a higher rate from the source. A holding pond is used to store the daily requirements of the irrigation system. The diversion rate from the source to the holding pond is based on the continuous-use irrigation requirement and the diversion rate from the pond to the irrigation system is based on the actual hours of operation of the system.

In situations where a holding pond is not practical, a higher rate is considered reasonable and necessary. The diversion rate for a new water right should be based on the requirements of a modern irrigation system with proper management. In an adjudication of water rights, the diversion rate recommended cannot exceed the historical diversion rate nor the amount determined to be reasonably necessary using acceptable irrigation practices. In both cases, a condition is required that limits the daily volume of water diverted.

To calculate the irrigation diversion rate for turf grass for irrigation systems that can not apply water continuously, divide the diversion rate based on continuous operation by the ratio of actual hours of operation per day to 24 hours per day.

Example: A golf course irrigates every day from 10 p.m. to 6 a.m. (eight hours per day) . Based on an analysis of the irrigation diversion requirements, the irrigation diversion rate is calculated to be 0.02 cfs per acre under continuous operation. The diversion rate based on the reduced operation time would be 0.06 cfs per acre (0. 02 divided by 8/24) . The diversion rate of 0. 06 cf s per acre is considered reasonable and necessary due to the

operation time limitations of the system. This water right must include a condition which limits the daily volume of water diverted.