



MEMORANDUM

Date: September 28, 2001

To: The Commission

From: Izetta Jackson, Director
Water Division

Subject: Report on exempting water and sewer utility from rotating outages

Decision (D.) 01-09-020 directs Water Division to file and serve a report to explain the basic types of system used by the water and sewer entities, state the impact of any loss of power, indicate the effects on public health and safety, state mitigation measures available for these systems.

Peter Liu of the Water Division gathered and analyzed the comments received. The conclusions are as follows:

The basic types of system used by the water and sewer entities

California is a populous state that receives minimal rainfall. Approximately 70% of the population obtains its drinking water from surface sources with the remainder relying on ground water supplies. The basic types of system used by the water companies are pressurized (pressure fed) and non-pressurized (gravity fed) systems. The basic types of system used by the sewer companies are collection and treatment systems that use force pumps to move sewerage.

The impact of any loss of power

Drinking water is supplied to California residents through a myriad of governmental agencies, cities, districts, private utilities, mutual water companies, private businesses, and individually owned wells. There are over 10,000 public water suppliers in the state serving water to approximately 29 million consumers. Less than 10% of the public water systems in the state serve collectively more than 95% of the state's population. The remaining 90% of the systems serves less than 5% of the population. D.01-05-089 added Category M (limited other customers as necessary to protect public health and

safety, to the extent exempted by the Commission) to the list of essential customers normally exempt from rotating outages.

Due to the energy situation and rolling blackouts that occurred earlier in the year, the Water Division has conducted an informal inquiry into the impact of the rolling blackouts and has concluded that during the first four months of the year, California energy situation and rolling blackouts have had no significant impact upon the California Water and Sewer System Industries, in part due to the "Y2K" efforts in 1999. Water utilities and sewer system utilities appear to have the matter well under control with little to no impact on customer service at this time.

The effects on public health and safety

Public health and safety must be the primary factor used to evaluate a customer's eligibility for exemption from rotating outages. Exempting a fire department from rotating outages is of little value if the water resources needed to fight these fires are not available to it, particular during the high fire season. Fires that start during extreme fire weather conditions are a high risk to the safety of the residents and firefighters, and have a high probability of spreading rapidly and inflicting major property loss, if water pumping facilities are compromised.

A review of the Chief of the Los Angeles County Fire Department's (LACFD) comments indicated that the emergency restoration procedures are likely inadequate and do not ensure that sufficient water supplies will be available in an emergency. LACFD also is concerned that the procedures have not been activated nor tested, the procedures may not have been communicated consistently between the electric utilities, water agencies and fire fighting forces, the procedures do not provide for the instantaneous supply of water required in a fire emergency, and the current procedures require the caller to identify the exact location of the power restoration.

California has experienced many power outages from natural disasters such as fires, floods, earthquakes, and rainstorms. This means that water and sewer systems must have adequate back up power for extended electric outages independent of rolling blackouts. Many large water systems have adequate storage facilities and have installed backup generators to maintain system pressures during power failure due to "Y2K" efforts. Rotating power outage duration is usually less than two hours or between two to four hours. Therefore, rolling blackouts have little impact on customer service.

In addition, water and sewer treatment utilities may request partial or complete rotating outage exemption from electric utilities in times of emergency identified as requiring their service, such as fire fighting. The Water Division believes that it is reasonable to order electric companies to notify all of their water and sewer customers

and test the emergency restoration procedures to minimize the effects on public health and safety. The Water Division recommends that water and sewer companies be excluded from the Category M.

Mitigation measures available for these systems

Backup power was a big issue due to the energy situation and rolling blackouts that occurred this summer. Many water systems have argued that backup power was not necessary since they received electrical power from more than one substation, but the power shortage has negated that argument. Many large water systems have adequate storage facilities and have installed backup generators to maintain system pressures during power failures due to “Y2K” efforts. It is the smaller systems that generally do not have backup power. To mitigate possible public health and safety impacts due to a loss of power, the Water Division recommends that all water companies with pressurized systems and sewer companies install backup generators on the wells with the largest pumping capacity or the lead wells. This will assure system integrity.