TESTIMONY OF RUDY MUSSI

STATE WATER RESOURCES CONTROL BOARD

HEARING ON DELTA SALINITY DRAFT CDOs AND WQRP

I am a farmer and a general partner of Rudy M. Mussi Investment L.P. which holds a 50% interest in the property on Roberts Island shown in CDWA-9b. I have been farming in the Roberts Island area of the Delta for about 30 years. My ownership interest in the subject property was acquired in 1984 and I have been farming the property since about a year after acquisition.

The property is currently served with water from Middle River through the Woods Irrigation Co. canals. Said canals replaced natural sloughs connecting to Middle River. At the time of patent from the State of California the property was part of a large parcel which abutted Middle River and the San Joaquin River as well as the sloughs. Farming of the property extends back to the late 1800s and appears to have commenced at about the time when the Certificate of Purchase was issued in 1869.

The property is currently planted to grapes. Irrigation of the grapes is generally in late June, August and October depending on measurements of soil moisture. All water applied in excess of the consumptive use of the crop is drained into the Woods Irrigation Co. drainage canals and pumped back into the Delta. The actual amount of water used by the crops is reflected by the consumptive use estimates of the Department of Water Resources. The water table is relatively high and crops draw from the water table as well as the applied water.

Management of the salt balance in the soil is an ongoing challenge. Attached hereto as CDWA-9c are colored maps showing areas of particular salinity concern. The darkest areas are

CDWA-9a

areas where crop damage and yield losses are already occurring. The applied water and the water table contain salts in addition to the salts remaining in the soil. When the crop uses water the salts remain in the soil profile. I depend upon October irrigation waters, rainfall and chemical treatment to leach sufficient salts from the soil profile to maintain a salt balance throughout the growing season which will avoid crop damage. My June and August irrigations are basically to meet the evapotranspiration requirements of the grapes. The field maps attached as Exhibit B show that high sodium concentrations already exist in portions of the fields and limit both production and quality. Any increased salt in the irrigation water will aggravate the existing problems and create new problems. The problem salt areas are visually apparent. The wood on the plants on these areas is smaller and more costly to prune, the vegetative cover is lighter which causes sunburn and requires culling and the harvest is noticeably lighter. Additionally, the lack of plant vigor requires special treatment to avoid plant death.

The present chemical management includes application of N. Phuric to the applied water and application of gypsum and lime to the soils. If the salinity of the irrigation water increases the amount of chemical management will also increase. I estimate the present level of chemical treatment to manage salts is costing about $100.00 per acre per year. Increases in salinity will increase the chemical costs in a greater proportion than the increase in salinity and may result in the total inability to maintain satisfactory salt balance. The result will be increased cost of the other practices described above as well as additional loss of quality and production.

The salinity of the water in Middle River and in my irrigation increases if the salinity of the water of the San Joaquin River at Vernalis increases.