INTRODUCTION

The High Line Dairy Farm plans construction of a dairy operation with associated manure waste handling facilities. This Statement of Basis covers the issuance of the ground water discharge permit.

A. DESCRIPTION OF FACILITY

The High Line Dairy will construct a new dairy operation in Millard County approximately six miles southeast of Delta. The Dairy will consist of barns, parlors and waste facilities to accommodate 4,500 head in total confinement with 3,150 milking in the first phase and 5,000 head with 3,500 milking in the second phase.

Manure from the dairy operations will be flushed from the barns using recycled plate cooler water. The liquid fraction will be stored in a waste retention pond. Both the liquid and solid fraction will be applied to fields at the appropriate agronomic rate according to the Comprehensive Nutrient Management Plan. Liquid and some solids will be applied on the adjacent 252 acres owned by Bliss. The rest of the solids will be sold as compost.

B. SUBSURFACE CONDITIONS

The Dairy Farm is located in Delta Valley, approximately 10 miles Southeast of Delta in Millard County. In this vicinity, ground water generally moves from the mountainous recharge areas on the east in a west-southwesterly direction toward the Sevier Lake. The aquifer beneath the existing grade at the proposed site consists of unconsolidated and semi-consolidated, poorly sorted alluvial materials; primarily clay, sand and gravel, inter-beded with silt and clay. The alluvial aquifer in the Delta Valley exceeds 500 feet in thickness through the center of the valley and may be several hundred feet thick under the proposed Dairy site. Monitoring wells will be completed in the uppermost water table aquifer at the site.
C. GROUND WATER CLASSIFICATION AND PROTECTION LEVELS

Monitoring wells have not been installed at the site, however the nearest wells indicate that TDS values range from 2,300 mg/L to 3,300 mg/L. Based on these samples ground water in the vicinity of the Dairy is likely Class II Drinking water Quality. Protection levels will be established for nitrate + nitrite, chloride and TDS and included in Table 1 of the ground water discharge permit upon completion of an accelerated monitoring schedule.

D. BEST AVAILABLE TREATMENT TECHNOLOGY

At full population the dairy is to contain 5,000 animals in total confinement. The waste disposal lagoons for the farm are designed to hold approximately 61.6 acre feet, not including 1 foot of freeboard. Wastewater and composted manure are planned to be applied to adjacent farmland by the irrigation system on approximately 252 acres. The solids will be used as an organic fertilizer or sold as compost.

Dry, scraped manure will be composted. Solids will be deposited on a graded and bermed area for composting. Runoff from the compost area will drain into the settling pond.

The design, operational, and contingency requirements detailed above represent Best Available Technology since the implementation of these requirements will be protective of ground water resources in the area surrounding the facility.

E. GROUND WATER MONITORING

The Dairy will install one up-gradient and two down-gradient monitoring wells located along the direction of ground water flow and completed in the uppermost water-bearing zone under the lagoons. Ground water will be sampled and analyzed quarterly for nitrate + nitrite, ammonia, pH, chloride, bicarbonate, and total dissolved solids for the term of the permit. Background concentrations will be determined through an accelerated monitoring program over the first year of operation.

Regulatory decisions made as a result of ground water monitoring must take into account the background variability of ground water quality at the Dairy site. The High Line Dairy Farm will not be required to take corrective action if it can be verified that changes in ground water quality are a result of other factors not related to their operations.