

Irrigation and Water Supply System

The irrigation system consists of 52 (Fields 1 through 58, less 44-49) individual center pivots. The size of the center pivot fields varies from 33 acres to 210 acres, see Figure 2. The majority of the center pivots are approximately 135 acres in size. All of the center pivots have their own wells except Fields 41, 42, 29, 30, 31, and 32. There is one well at Field 41 and 42 that runs both center pivots and there is one well at Field 29 that supplies 4 center pivots (Fields 29, 30, 31, and 32). Pivots 1 and 43 are under the control of Southern Cross Dairy while the remaining pivots are under the control of the partnering neighbor. Pivots 1-5, 8, 9, 13-20, and 34-35 are connected to receive wastewater via a 6" diameter PVC pipeline.

Site Layout and Fields Description

Table 1 summarizes the use of the fields on the farm, which includes typical crops grown (will vary year to year), animal distribution, acreage, and those receive wastewater effluent. Note that Field IDs shown in Table 1 represents a typical year distribution, so the Field IDs shown for the "Fields with Grazing" and "Crop Land" will vary between these two categories from year to year. Figure 3 shows the conservation plan map with proposed NRCS land uses. Figure 4 shows the proposed facility layout for the dairy operation where changes will occur at SCOE. The remaining portion of SCOE (cattle feeding operation, sprayfields, and natural areas) will be unaltered.

Inventory Resources

The SCOE site encompasses approximately 320 acres. The land is located northeast of Mayo and south of Live Oak in the southern portion of Suwannee County near latitude 30.04 and longitude -82.94 as shown on Figure 1. The SCOE Confined Livestock Area is located in Township, Range, Section: 5S, 13E, 4. The area is extremely rural with very few houses in the vicinity. Figure 2 shows Suwannee Farm with an aerial background.

The natural topography of the site has moderate changes in elevation from 40 to 85 NGVD as shown in a later section. The nearest surface water is the Suwannee River located approximately 2.2 miles to the southwest of cattle and dairy facilities. There are no direct surface water discharge features, such as ditches or streams, located on the SCOE site because of the very well drained soils.

As detailed in a later section, the major soil type on the farm is a Blanton-Alpin-Bonneau fine sand complex. Most of the other soils are very similar in their characteristics to the Blanton-Alpin-Bonneau fine sand complex, which has a hydrologic soil group of "A", i.e. very high infiltration rates with water tables deeper than 15 feet. Surface runoff from these areas is very low.

Utility Inventory

The site does not contain any major utilities that would affect placement of any of the NMP components. Overhead power lines currently enter the farms property from CR349 in multiple places (see Utility Map in Appendix F). These power lines from CR349 serve all fields as needed except Fields 22 through 28. Overhead power lines that serve Fields 22 through 28 enter the Suwannee Farms property from Brannon Road. Underground power lines are also present on the property (see Utility Map in Appendix F). Small utilities such as telephone lines may be rerouted around any NMP components that need to be installed if there is any interference.