Nutrient Loading from the Sanford Wastewater Facility (Site 10)

Prepared for the Lake Jesup, Crane Strand, and Long Branch Basin Working Group

1. Facility Description
    a. Site 10 location, infrastructure, and typical operation
    b. Role of this facility in Sanford's wastewater disposal system
2. Nutrient Sources
    a. Surface Runoff
        - TMDL calculations
        - Recalculation based on SJRWMD 2000 land use
    b. Natural Background in Groundwater
        - Upgradient well nutrient concentrations
        - Potentiometric surface
    c. Wastewater
        - Wastewater volume (monthly 2003-2006)
        - Nutrient concentrations
3. Loading to Lake Jesup through Subsurface Discharge
    a. Retention and attenuation of subsurface nutrients between Site 10 and Lake Jesup
    b. Denitrification in fringe marsh
    c. Estimate of total nutrient loading from Site 10
    d. Comparison to TMDL calculations
4. Integration of Site 10 Information into the BMAP

Data Needs

The following data is needed to complete the above analysis. The time period for all data is 2003-2006, depending on availability.

Data	Source
Site 10 location and boundaries	City
Infrastructure and facility description (application points, location of monitoring wells, known wet weather discharges, areas inundated during rainfall, conditions under which surface discharge may occur)	City DEP Central District
Wastewater application rates (volume)	City DEP Central District
Wastewater nutrient concentrations	City DEP Central District
Monitoring well nutrient concentrations	City
Monthly evapotranspiration rates	SJRWMD
Monthly rainfall	DEP
Geology (soil type, infiltration rates, hydraulic conductivity, potentiometric surface)	DEP SJRWMD
Groundwater (monitoring wells, background nutrient concentrations)	DEP
Monthly lake elevations	SJRWMD
Denitrification in the Lake's marsh fringe	SJRWMD