

## ESTIMATED DENITRIFICATION POTENTIAL OF SOILS IN THE WEKIVA STUDY AREA

Drainage Class	Water Table Class 1=<3.5 ft 2=>3.5 ft	Organic Matter Class 1=<1.0% 2=>1.0%	Soil Series Taxonomy	Soil Series Description	NRCS "Suitability" Rating for Onsite Treatment	Applied Nitrogen	Estimated TN Removal Potential	Comments	Code Allowed Systems
Excessively / Somewhat Excessively	2	1	<b>LAKE FINE SAND</b> Hyperthermic, coated Typic Quartzipsamments	Excessively drained, rapidly to very rapidly permeable soils formed in thick beds of sand. Water table is >80" deep.	Slight	TKN/NO <sub>3</sub>	<10%	Very low organic content Very low moisture content (aerobic)	In-ground traditional system
	2	1	<b>PAOLA FINE SAND</b> Hyperthermic, uncoated Spodic Quartzipsamments	Very deep, excessively drained, very rapidly permeable upland soils that formed in sandy marine deposits. Water table is >80" deep.	Slight	TKN/NO <sub>3</sub>	<10%	Very low organic content Very low moisture content (aerobic)	
	2	1	<b>ST. LUCIE SAND</b> Hyperthermic, uncoated Typic Quartzipsamments	Very deep, excessively drained, very rapidly permeable soils formed in marine eolian sand. Water table >80" deep.	Slight	TKN/NO <sub>3</sub>	<10%	Very low organic content Very low moisture content (aerobic)	
	2	2	<b>ASTATULA FINE SAND</b> Hyperthermic, uncoated Typic Quartzipsamments	Very deep, excessively drained, rapidly permeable soils formed in eolian and marine sands. Water table >80" deep.	Slight	TKN/NO <sub>3</sub>	<10%	Very low organic content Very low moisture content (aerobic)	In-ground traditional system
	2	2	<b>CANDLER SAND</b> Hyperthermic, uncoated Lamellic Quartzipsamments	Very deep, excessively drained, rapidly permeable soils that formed in thick beds of eolian or marine deposits of coarse textured materials. Short, thin loamy lamella exist below 70". Water table >80" deep.	Slight	TKN/NO <sub>3</sub>	<10%	Very low organic content Very low moisture content (aerobic)	In-ground traditional system
Well	2	1	<b>APOPKA SAND</b> Loamy, siliceous, hyperthermic Grossarenic Paleudults	Very deep, well drained, moderately permeable soils that formed in thick beds of sandy and loamy marine or eolian deposits. Water table >60" deep.	Slight	TKN/NO <sub>3</sub>	<10%	Very low organic content Very low moisture content (aerobic)	In-ground traditional system
	2	2	<b>ORLANDO FINE SAND</b> Siliceous, hyperthermic Humic Psammentic Dystrudepts	Very deep, well drained, rapidly permeable soils that formed in thick deposits of sandy marine or fluvial sediments. Water table >72".	Slight	TKN/NO <sub>3</sub>	<10%	Very low organic content Very low moisture content (aerobic)	

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Moderately Well	2	1	<b>ARCHBOLD SAND</b> Hyperthermic, uncoated Typic Quartzipsamments	Deep, well drained, very rapidly permeable sandy soils that formed in marine or eolian deposits. Seasonally high water table (June-November) at 42-60" but 60-80" the remainder of the year.	Moderate: wetness	TKN/NO <sub>3</sub>	5-15%	Very low organic content Low moisture content (aerobic)	In-ground traditional system with slight amounts of fill added
	2	1	<b>ORSINO FINE SAND</b> Hyperthermic, uncoated Spodic Quartzipsamments	Very deep, moderately well drained, very rapidly permeable soils that formed in thick beds of sandy marine or eolian deposits. Water table at 50-60" deep. Spodic horizon at 25".	Severe: wetness	TKN/NO <sub>3</sub>	5-15%	Very low organic content Low moisture content (aerobic)	In-ground traditional systems with slight amounts of fill added. Orsino is likely will have soil "digout" and sand replacement.
	2	2	<b>FLORAHOME SAND</b> Siliceous, hyperthermic Humic Psammentic Dystrudepts	Deep, moderately well drained, dark surfaced, rapidly permeable soils that formed in sandy marine and eolian deposits. Water table depth at 48-72" for 4-6 months each year receding to >72 in dry periods.	Moderate: wetness	TKN/NO <sub>3</sub>	10-20%	Low organic content Low moisture content (aerobic) Fluctuating water table	In-ground traditional systems
	2	2	<b>MILLHOPPER SAND</b> Loamy, siliceous, semiactive, hyperthermic Grossarenic Paleudults	Very deep, moderately well drained, moderately permeable soils that formed in thick beds of sandy and loamy marine sediments. Water table depth is 48-60" for 1-4 months and 60-72" for 2-4 months most years.	Moderate: wetness	TKN/NO <sub>3</sub>	10-20%	Low organic content Low moisture content (aerobic) Fluctuating water table	
	2	2	<b>TAVARES FINE SAND</b> Hyperthermic, uncoated Typic Quartzipsamments	Very deep, moderately well drained, rapidly permeable soils that formed in sand marine or eolian deposits. Zones of saturation at depths of 40-80".	Moderate: wetness	TKN/NO <sub>3</sub>	5-15%	Low organic content Low moisture content (aerobic)	
Somewhat Poorly / Poorly / Very Poorly	1	1	<b>ADAMSVILLE FINE SAND</b> Hyperthermic, uncoated Aquic Quartzipsamments	Very deep, somewhat poorly drained, rapidly permeable soils that formed in thick sandy marine sediments. Water table is at 20-40" for 2-6 months of most years and 10-20" for up two weeks in some years. It is within 60" for more than 9 months in most years.	Severe: wetness poor filter	TKN NO <sub>3</sub>	5-15% 15-30%	Very low organic content below 4" Rapid permeability Fluctuating water table with aquic regime (anoxic)	Filled or Mound systems
	1	1	<b>CASSIA FINE SAND</b> Sandy, siliceous, hyperthermic Oxyaquic Alorthods	Very deep, somewhat poorly drained, moderately rapid permeable soils formed in sandy materials. Water table is at 18-42" for about 6 months during most years and will drop to >42" during the driest season.	Severe: wetness	TKN NO <sub>3</sub>	10-20% 5-25%	Fine sand with shallow water table High organic content in spodic horizon at 2-3 ft. Fluctuating water table	Soil "digout" and Mound systems
	1	1	<b>POMELLO FINE SAND</b> Sandy, siliceous, hyperthermic Oxyaquic Alorthods	Very deep, moderately well to somewhat poorly drained soils, which are sandy to depths of >80" that formed in sandy marine sediments. Seasonally high water table is at depths of about 24-42" for 1-4 months during most years.	Severe: ponding poor filter	TKN NO <sub>3</sub>	10-40% 10-50%	Freely draining Shallow, fluctuating water table at 2-3 ft Spodic horizon high in organic content at 3.5 ft	Soil "digout" and Mound systems or very high Mounds without "digouts".
	1	1	<b>ZOLFO FINE SAND</b> Sandy, siliceous, hyperthermic Oxyaquic Alorthods	Very deep, somewhat poorly drained soils that form in thick beds of sandy marine deposits. Water table is at depths of 24-40" for 2-6 months of the year and up to 40" the remainder of the year.	Severe: wetness	TKN	5-25%	Fine sand with shallow water table (2-3.5ft) Spodic horizon at 5.8 ft.	Mound systems without "digouts"

			Sandy, siliceous, hyperthermic Oxyaquic Alorthods	24" deep for short periods. It is within 60" for more than 9 months most years.	wetness poor filter	NO3	15-35%	Fluctuating water table	moist systems without organic
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	1	2	<b>ANCLOTE SAND</b> Sandy, siliceous, hyperthermic Typic Endoaquolls	Very deep, very poorly drained, rapidly permeable fine sandy soils in depressions, drainage way and floodplains. Water table is within 10" of the surface for 6 or more months during most years and rededes to >20" during the driest season.	Severe: ponding wetness poor filter	TKN	5-20%	Very shallow water table (<1ft) High organic content in surface horizon	Mound systems without "digouts". Likely to require wetlands fill permits from DEP
						NO3	>75%		
	1	2	<b>BASINGER FINE SAND</b> Siliceous, hyperthermic Spodic Psammaquents	Very deep, poorly drained and very poorly drained, rapidly permeable soils formed in sandy marine sediments. Found in sloughs, depressions, and low flats. Water table at depths of <12" 2-6 months annually and 12-30" for periods >6 months. Surface ponding is common.	Severe: wetness ponding poor filter	TKN	5-20%	Very shallow fluctuating water table Very high organic content	Mound systems with "digouts" where spodic horizon exists. Likely to require wetland fill permits from DEP
						NO3	>75%		
	1	2	<b>BRIGHTON MUCK</b> Dysic, hyperthermic Typic Haplohemists	Very deep, very poorly drained, moderately rapid to rapidly permeable organic soils in depressions, freshwater marshes and swamps. Organic layer is >54" thick. Water table is above ground surface for 4-6 months.	Severe: subsides flooding wetness	TKN	20-40%	Deep organic surface horizon Very shallow, fluctuating water table	Mound systems without "digouts". Likely to require wetlands fill permits from DEP
						NO3	>90%		
	1	2	<b>CANOVA MUCK</b> Fine-loamy, siliceous, superactive, hyperthermic Histic Glossaqualfs	Very deep, very poorly drained, moderately slowly permeable fine sandy and loamy soils in depressions and fresh water swamps and marshes. They are formed in loamy marine sediments. Water table is at the surface or within 10" of the surface for more than 9 month during most years. The soil may be flooded for 3-6 months.	Severe: ponding	TKN	20-40%	Very shallow water table (<1ft) High organic content in surface horizon and the Btg horizon at 32-43"	Mound systems with "O" horizon removed. Likely to require wetlands fill permits from DEP
						NO3	>90%		
	1	2	<b>CHOBEE FINE SANDY LOAM</b> Fine-loamy, siliceous, superactive, hyperthermic Typic Argiaquolls	Very deep, very poorly drained, slowly to vry slowly permeable soils in depressions, flats, and river flood plains that formed in thick beds of loamy marine sediments. Water table within 6" for 1-4 months of the year.	Severe: flooding wetness percs slowly	TKN	10-30%	Very shallow water table High organic content in the surface horizon	Mound systems with "digouts". Likely to require wetlands fill permits from DEP.
						NO3	>90%		
	1	2	<b>EAUGALLIE FINE SAND</b> Sandy, siliceous, hyperthermic Alfic Alaquods	Deep or very deep, poorl or very poorly drained, slowly permeable soils in flats, sloughs, and depressionsthat were formed in sandy and loamy marine sediments. The water table rises to within 6-18" of the surface for periods of 1-4 months annually and within 40" for more than 6 months.	Severe: wetness	TKN	20-40%	Shallow, fluctuating water table Moderately high organic content near surface in within a spodic horizon at depths >22"	Mound systems with "digouts". Likely to require wetlands fill permits from DEP.
						NO3	>90%		
	1	2	<b>EMERALDA FINE SAND</b> Fine, mixed, superactive, hyperthermic Mollic Albaqualfs	Very deep, poorly drained, slowly or very slowly permeable fine sand to sandy clay soils in low areas near lakes and streams that were formed in clayey marine sediments. The water table is at depths of <10" for 6-9 months and saturated most of the year	Severe: flooding wetness percs slowly	TKN	10-30%	Very shallow water table High organic content in the surface horizon	High mounds without "digouts". Likely to require wetlands fill permits from DEP.
						NO3	>90%		

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	1	2	<b>FELDA FINE SAND</b> Loamy, siliceous, superactive, hyperthermic Arenic Endoaqualfs	Very deep, poorly drained and very poorly drained, moderately permeable fine sandy soils in drainageways and depressions that formed in stratified, unconsolidated marine sands and clays. The water table is within 12" of the surface for 2-6 months each year.	Severe: ponding wetness poor filter	TKN	10-30%	Very shallow water table Moderate to high organic content in the surface horizon	High mounds without "digouts". Likely to require wetlands fill permits from DEP.
						NO3	40-60%		
	1	2	<b>GATOR MUCK</b> Loamy, siliceous, euic, hyperthermic Terric Haplosaprists	Very poorly drained organic soils that formed in moderately thick beds of hydrophytic plant remains overlying beds of loamy and sandy marine sediments. These soils are always saturated at or above the surface except during extended droughts.	Severe: ponding percs slowly poor filter	TKN	10-30%	Very shallow water table Low organic content below 34"	Mound systems with "O" horizon removed. Likely to require wetlands fill permits from DEP
						NO3	>90%		
	1	2	<b>IMMOKALEE FINE SAND</b> Sandy, siliceous, hyperthermic Arenic Alaquods	Deep and very deep, poorly drained and very poorly drained soils that formed in sandy marine sediments that occur in flatwoods and depressions. The water table is at depths of 6-18" for 1-4 months, 18-36" for 2-10 months and below 60" during dry periods.	Severe: wetness	TKN	20-40%	Shallow, fluctuating water table Moderately high organic content near surface	Mound systems with optional "digouts" allowed in some cases. May require wetlands fill permits from DEP
						NO3	>90%		
	-	2	<b>MALABAR FINE SAND</b> Loamy, siliceous, active, hyperthermic Grossarenic Endoaqualfs	Very deep, poorly to very poorly drained soils in sloughs, shallow depressions and along flood plains in sandy and loamy marine sediments. The water table is within depths of 10" for 2-6 months during most years.	Severe: wetness poor filter	TKN	10-30%	Very shallow water table Low organic content	Mound systems. May require wetlands fill permits from DEP.
						NO3	40-60%		
	1	2	<b>MYAKKA FINE SAND</b> Sandy, siliceous, hyperthermic Aeric Alaquods	Deep and very deep, poorly to very poorly drained soils formed in sandy marine deposit, which occur on flatwoods, flood plains, and depressions. The water table is at depths <18" for 1-4 month duration in most years and recedes to depths >40" during very dry seasons.	Severe: ponding wetness poor filter	TKN	40-60%	Shallow, fluctuating water table Moderate organic content	Mound systems with "digouts". Likely to require wetlands fill permits from DEP.
						NO3	>90%		
	1	2	<b>NITTAW SANDY CLAY</b> Fine, smectitic, hyperthermic Typic Argiaquolls	Very poorly drained, slowly permeable soils that formed in thick deposits of clayey sediments of marine origin, which occur in drainageways, swamps and marshes. They are subject to standing water above the soil surface for >6 months during late spring, summer and fall.	Severe: ponding percs slowly	TKN	10-30%	Very shallow water table High organic content in "O" and "A" horizons but diminishing quickly with depth Soil permeability slow in the sandy clay below A horizon	Unsuitable for housing developments
						NO3	>90%		
	1	2	<b>OCOEE MUCK</b> Sandy or sandy skeletal, siliceous, dysic, hyperthermic Terric Haplohemists	Deep, very poorly drained soils that formed in herbaceous organic material and sandy mineral material, which occur on flood plains, fresh water marshes, and depressions.	Severe: subsides flooding wetness	TKN	5-20%	Very wet Deep "O" horizon from 0-38"	Mound systems with "O" horizon removed. Likely to require wetlands permits from DEP.
						NO3	>90%		

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Somewhat Poorly / Poorly / Very Poorly	1	2	<b>OKEELANTA MUCK</b> Sandy or sandy skeletal, siliceous, hyperthermic Terric Haplosaprists	Very deep, very poorly drained, rapidly permeable soils in large fresh water marshes and small depressional areas, which formed in decomposed hydrophytic non-woody organic material overlying sand. The water table is at depths of <10" below surface or ponded above surface.	Severe: flooding poor filter wetness	TKN	5-20%	Very wet Deep "O" horizon from 0-31"	Mound systems with "O" horizon removed. Likely to require wetlands permits from DEP
						NO3	>90%		
	1	2	<b>ONA FINE SAND</b> Sandy, siliceous, hyperthermic Typic Alaquods	Poorly drained, moderately permeable soils that formed in thick sand marine sediments, which occur in flatwood areas. The water table is at depths of 10-40" for periods of 4-6 months. It rises to depths of <10" for periods of 1-2 months and may recede to >40" during very dry seasons.	Severe: wetness poor filter	TKN	10-30%	Shallow, fluctuating water table Moderate organic content above 20"	Mound systems with "digouts"
						NO3	>90%		
	1	2	<b>PLACID FINE SAND</b> Sandy, siliceous, hyperthermic Typic Humaquepts	Very deep, very poorly drained, rapidly permeable soils on low flats, depressions, drainageways, and flood plains. The soils formed in sandy marine sediments. The water table ranges in depths from 0-6" for >2 months in most years.	Severe: ponding wetness poor filter	TKN	5-15%	Very shallow water table Moderately high organic content above 18"	Mound systems without "digouts". Undrained areas may be called surface water.
						NO3	>90%		
	1	2	<b>POMPANO FINE SAND</b> Siliceous, hyperthermic Typic Psammaquents	Very deep, very poorly drained, rapidly permeable soils occurring in depressions, drainageways and broad flats. The soils were formed in thick beds of marine sands. The water table is at depths of >10" for 2-6 months each year and within depths of 30" for more than 9 months.	Severe: ponding poor filter	TKN	5-15%	Very shallow, fluctuating water table Low organic content	Mound systems without "digouts".
						NO3	40-60%		
1	2	<b>SAMSULA MUCK</b> Sandy or sandy skeletal, siliceous, hyperthermic Terric Haplosaprists	Very deep, very poorly drained, rapidly permeable soils that formed in moderately thick beds of hydrophytic plant remains underlain by sandy marine sediments. They occur in swamps and flood plains. The water table is at or above the surface except during extended dry periods.	Severe: ponding poor filter	TKN	5-15%	Very shallow water table Sapric soil materials from surface to 36"	Unsuitable for housing developments	
					NO3	>90%			
1	2	<b>SANIBEL FINE SAND</b> Sandy, siliceous, hyperthermic Histic Humaquepts	Very poorly drained sandy soils with organic surfaces, that formed in rapidly permeable marine sediments, which occur on nearly level and depressional areas. The water table is <10" deep for 6-12 months and is above ground surface 2-6 months during wet seasons.	Severe: ponding poor filter	TKN	5-15%	Very shallow water table High organic content in the "O" and "A" horizons to a depth of 10"	May be classified as surface water. Mound systems on drier sites with "digouts" of "O" horizon.	
					NO3	>90%			
1	2	<b>SEFFNER FINE SAND</b> Sandy, siliceous, hyperthermic Aquic Humic Dystrudepts	Very deep, somewhat poorly drained, rapidly permeable soils on rims of depressions and on lower lying flats, which formed in sandy marine sediments. The water table is within depths of 18-42" for 2-4 months and within 60" for >9 months in most years.	Severe: wetness poor filter	TKN	5-15%	Very shallow water table Moderate organic content to 20"	Mound systems without "digouts".	
					NO3	>90%			
1	2	<b>SMYRNA SAND</b> Sandy, siliceous, hyperthermic Aeric Alaquods	Very deep, poorly to very poorly drained soils formed in thick deposits of sandy marine materials. The water table is at depths of >18" for 1-4 months and 1240" for more than 6 months	Severe: ponding poor filter	TKN	20-40%	Shallow, fluctuating water table Moderate organic content to 35"	Mound systems. May require wetlands fill permits from DEP.	
					NO3	>90%			

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Somewhat Poorly / Poorly / Very Poorly	1	2	<b>SPARR FINE SAND</b> Loamy, siliceous, subactive, hyperthermic Grossarenic Paleudults	Very deep, somewhat poorly drained, moderate slowly to slowly permeable fine sandy soils on uplands. They formed in thick beds of sand and loamy marine sediments. The water table is at depths of 20-40' for 1-4 months. The water table is usually perch on the loamy layers.	Severe: ponding poor filter	TKN	20-40%	Moderately shallow water table Low to moderate organic content	Filled or Mound systems without "digouts".
						NO3	>90%		
	1	2	<b>ST. JOHNS FINE SAND</b> Sandy, siliceous, hyperthermic TypicAlaquods	Very deep, very poorly or poorly drained, moderately permeable soils on broad flats and depressional areas. These soils formed in sandy marine sediments. The water table is 0-15' below surface for 20-50% of the year but is at 15-30' during periods of low rainfall.	Severe: wetness	TKN	20-40%	Shallow, fluctuating water table Spodic horizon with moderate organic content at 22-66"	Mound systems with "digouts".
						NO3	>90%		
	1	2	<b>WABASSO FINE SAND</b> Sandy over loamy, siliceous, active, hyperthermic Alfic Alaquods	Deep or very deep, very poorly and poorly drained, very slowly and slowly permeable soils on flatwoods, flood plains, and depressions. They formed in sandy and loamy marine sediments. The water table is at depths of 12-40' for more than 6 month and >40' during very dry seasons.	Severe: wetness poor filter	TKN	20-40%	Moderately shallow, fluctuating water table Low to moderate organic content	Mound systems with "digouts".
						NO3	>90%		
	1	2	<b>WAUBERG FINE SAND</b> Loamy, siliceous, active, hyperthermic Arenic Albaqualls	Poorly drained, very slowly permeable sandy soils that formed in thick beds of loamy marine sediments within large prairie areas and low areas within flatwoods. The water table is at depths of <10' for 3-5 months during most years.	Severe: wetness percs slowly	TKN	5-15%	Very shallow water table Sandy clay loam restrictive horizon at 24" Low to moderate organic content to 24"	Mound systems without "digouts".
						NO3	40-60%		
	1	2	<b>WAUCHULA FINE SAND</b> Sandy over loamy, siliceous, active hyperthermic Ultic Alaquods	Very deep, very poorly or poorly drained, moderately slow or slowly permeable soils formed in sandy and loamy marine sediments. The water table is at depths of 6-18' for 1-4 month and 10-40' for as long as 6 months but receding to depths of 40' during the driest season.	Severe: wetness poor filter	TKN	5-15%	Shallow, fluctuating water table Low organic content	Likely classified as surface water. Mound systems on drier sites.
						NO3	40-60%		
	2	2	<b>LOCHLOOSA FINE SAND</b> Loamy, siliceous, semiactive, hyperthermic Aquic Arenic Paleudults	Somewhat poorly drained, slowly permeable soils formed in thick beds to sandy and loamy marine sediments. The water table is at depths of 30-60" for 1-4 months and recedes to >60" during the drier seasons.	Severe: wetness	TKN	20-40%	Moderately deep, fluctuating water table Low to moderate organic content	Fill systems without "digouts".
						NO3	40-60%		