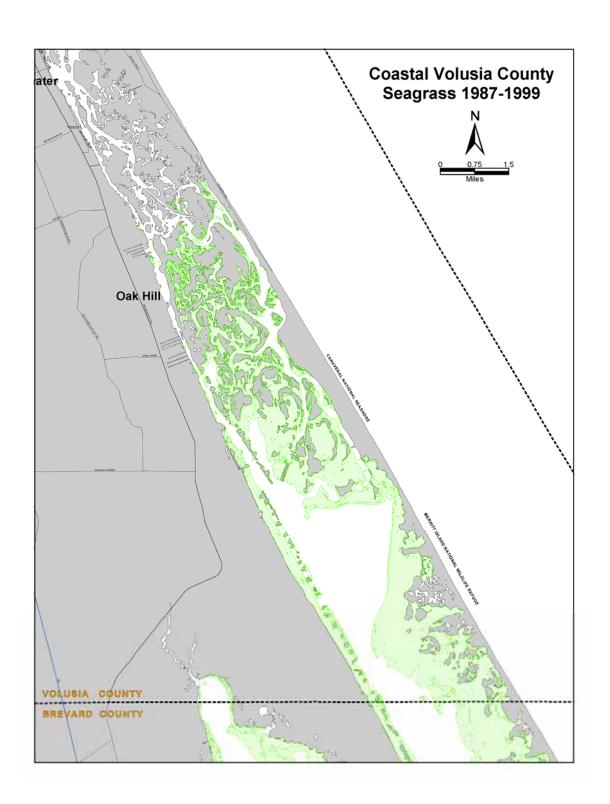
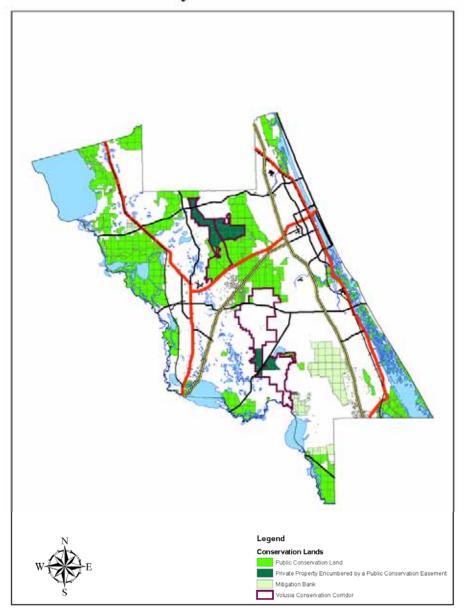
Attachment L: Seagrass Bed Map



Attachment M: Volusia County Conservation Lands

Volusia County Conservation Lands



Attachment N: Boating Activity Study Update

Boating Activity Study Update

Background

A total of 47 marine facilities located along the Intracoastal Waterway (ICW) and the county's eastern shoreline, including the Halifax and Indian Rivers, the Tomoka River, Spruce Creek and tributaries were surveyed. Along the St. Johns River (SJR) and tributaries, 31 boat related facilities were surveyed. These included facilities which were located outside of Volusia County, but which could contribute to the boating traffic in the waterway. The total number of surveyed facilities came to 78, and is represented in the "Marinas Surveyed in Volusia County 2001" chart on the following pages.

However, for the purposes of this study update we have chosen to limit the facilities under consideration to those that are located within the Volusia County borders. To accurately calculate the present marine facility supply for Volusia County, facilities that are not located within the county's geographical boundaries were excluded. This study area is reflected in the charts labeled "Volusia County Study Area Marina Capacity."

Present Marina Supply

After eliminating marina facilities outside county boundaries the study area was reduced to 66 total facilities, 44 on the ICW and 22 on the SJR. The 66 marinas have a total of 3,265wet slips and 921 dry slips. The ICW has 2,139 wet slips and 726 dry slips while the SJR has 1,126 wet slips and 195 dry slips. In total, Volusia County has a wet and dry slip supply of 4,186.

Marina Slip Occupancy

The current marina occupancy rate for facilities located in Volusia County is 80%. Marina occupancy was determined by totaling the number of wet and dry slips occupied on the ICW and SJR and dividing that number by the total number of available wet and dry slips. The ICW has an occupancy rate of 88% and the SJR has an occupancy rate of 63%.

Water Body Percentage

Water body percentages were calculated for the ICW and SJR to determine how much of the actual demand is placed on each individual waterway. The percentages were calculated by dividing the number of occupied wet and dry slips for the ICW and SJR combined (3,364). The water body percentage is 75% (2,528/3,364) for the ICW and 25% (836/3,364) for the SJR. These figures will be useful when predicting future slip demand for each waterway.

Marina Slip Demand

The marina slip occupancy rates of 88% for the ICW and 63% for the SJR translate into a slip demand. The ICW has a demand of 1,832 wet slips and 696 dry slips. And the SJR has a demand of 721 wet slips and 115 dry slips. Volusia County's wet slip demand is 2,553 and its dry slip demand is 811, yielding a total marina slip demand of 3,364. Comparing the supply listed previously, to the demand yields a surplus of 822 wet and dry slips. A further breakdown illustrates a surplus of 307 wet slips and 30 dry slips on the ICW and a surplus of 405 wet slips and 80 dry slips on the SJR.

Dividing Volusia County's total marina slip demand of 3,354 by the number of registered Volusia County boaters in 1999/2000 (24,202) yields a marina demand rate of 13.8%. It should be noted that 2000/2001 registration figures were not readily available and also that the 24,202 figure, due to a change in tabulation methods by the state, is a projected value.

Marina Slip Projections

Utilizing the 13.8% marina demand noted earlier and the projected growth rate of registered boaters in Volusia County of 2.7%, total slip demand can be determined. The Volusia County registered boater growth rate was determined by finding the percentage increases for existing registration figures (1996 – 1999) and calculating their average. We have illustrated the projected slip demand on Volusia County through the year 2015, in total, and by water body. The 75% ICW and 25% SJR water body percentages were used in predicting future slip demand for each individual waterway.

Conclusion

As can be seen in the chart, there is a surplus of marina slips on the ICW until the year 2005. By the year 2005, 2 additional slips will be required, and by the year 2010, 404 additional slips will be required. On the SJR there is a surplus of marina slips until the year 2020, by which time 92 additional slips will be required. These projections prove to be consistent with the present marina occupancy rates for each water body. As noted previously the ICW has an occupancy rate of 88% and the SJR has an occupancy rate of 63%. The ICW's greater occupancy rate explains the larger future slip demand for the ICW than for the SJR.

Marinas Surveyed in Volusia County Halifax and Indian Rivers	2001					
Marina Marina	Wet Slips	Wet Slips Occ.	Dry Slips	Dry Slips Occ.	% Wet Occ.	% Dry Occ.
Adventure Yacht Club	150	150	0	0	100.0%	0.0%
Aloha Marina *	0	0	0	0	0.0%	0.0%
Angler's Yacht Club	17	12	10	8	70.5%	80.0%
Aunt Catfish **	10	7	0	0	70.0%	0.0%
Bouchelle Island Condo **	85	31	30	18	36.4%	60.0%
Brigadoon Fish Camp *	0	0	0	0	0.0%	0.0%
Cameron's Marina	42	35	0	0	83.3%	0.0%
Captain's Quarters Condo	4	4	0	0	100.0%	0.0%
Causeway Marina	40	40	70	70	100.0%	100.0%
City of New Symrna Beach Marina	40	40	0	0	100.0%	0.0%
Critter Fleet	10	7	0	0	70.0%	0.0%
Daytona Beach Riverhouse **	10	10	0	0	100.0%	0.0%
Daytona Marine and Boat Works	300	270	0	0	90.0%	0.0%
Diamond Head Point Condo **	35	35	0	0	100.0%	0.0%
Edgewater Landing **	0	0	134	134	0.0%	100.0%
English Jim's Marina	85	60	0	0	70.5%	0.0%
Fishin' Cove	15	15	90	90	100.0%	100.0%
Gerry's Marina	15	15	0	0	100.0%	0.0%
Goodrich Seafood *	0	0	0	0	0.0%	0.0%
Halifax Harbor Marina	560	532	49	49	95.0%	100.0%
Halifax Harbor Yacht Club	39	36	0	0	92.3%	0.0%
Howard's Bait and Tackle	7	5	0	0	71.4%	0.0%
Indian Mound Fish Camp	0	0	0	0	0.0%	0.0%
Inlet Cove	11	11	0	0	100.0%	0.0%
Inlet Harbor (95" was Ponce D.W. Landing)	45	39	230	225	86.6%	97.8%
Inlet Marina Condo **	64	64	0	0	100.0%	0.0%
J.B's Fish Camp **	8	2	0	0	25.0%	0.0%
King's Seafood **	11	11	0	0	100.0%	0.0%
Lefil's Fish Camp	25	13	0	0	52.0%	0.0%
Lighthouse Boat Yard	23	23	0	0	100.0%	0.0%
Lopez Fish Camp	49	19	0	0	38.8%	0.0%
Marina Bay Condo **	16	3	0	0	18.8%	0.0%
Marina Point Condo **	37	34	0	0	91.9%	0.0%
Marina Port Orange	40	40	20	10	100.0%	50.0%
Marker 33 **	38	24	0	0	63.2%	0.0%
Matthew's Marina (95" was Images Marine)	20	16	0	0	80.0%	0.0%
Riverplace 100 **	8	5	0	0	62.5%	0.0%
Riverview Hotel **	8	3	0	0	37.5%	0.0%
Sea Harvest **	0	0	0	0	0.0%	0.0%
Seabreeze Bridge **	60	56	0	0	93.3%	0.0%
Seven Seas Marina	40	40	68	68	100.0%	100.0%
Symrna Yacht Club	77	67	0	0	87.0%	0.0%
The Fishin' Store (95" was Seafarer Marine)	6	6	0	0	100.0%	0.0%
Thirty Eight Live Bait **	18	18	1	0	100.0%	0.0%
Tomoka Boat Club	31	14	24	24	45.2%	100.0%
Venetian Villas	28	14	0	0	50.0%	0.0%
Waterway East and West Condo	12	6	0	0	50.0%	0.0%
Totals/ICW Wet/Dry Occupancy:	2139	1832	726	696	86%	96%
* Not in operation in 2001 - see 1995 data						
** Not surveyed in 1995						
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C4 Jahma Pierre	County 20	∪1 ⊤				
St. Johns River						
Marina	Wet Slips	Wet Slips Occ.	Dry Slips	Dry Slips Occ.	% Wet	% Dry
Astor Landing **	22	5	30	10	22.7%	33.3%
Blair's Jungle Den	15	7	0	0	46.7%	0.0%
Boat Show Marina	170	153	60	30	90.0%	50.0%
Camp Henry RV and Marina	38	30	20	10	78.9%	50.0%
Georgetown Marina **	12	12	39	39	100.0%	100.0%
Halls Lodge	60	45	0	0	75.0%	0.0%
Hidden Harbour Marina	254	226	368	250	89.0%	67.9%
Highbanks Marina	72	72	50	50	100.0%	100.0%
Highland Park Fish Camp	88	50	75	30	56.8%	40.0%
Holly Bluff Marina	55	55	10	5	100.0%	50.0%
Hontoon Island State Park **	52	7	0	0	13.5%	0.0%
Hontoon Landing Marina	65	45	0	0	69.2%	0.0%
J.J.'s Marina Isle Fish Camp	30	30	15	8	100.0%	53.3%
Kyp's Fish Camp	20	13	0	0	65.0%	0.0%
Lake Beresford Yacht Club	49	27	0	0	55.0%	0.0%
Meadowlea On The River **	50	30	0	0	60.0%	0.0%
Midway Marine	0	0	20	20	0.0%	100.0%
Monroe Harbor Marina	252	232	167	137	92.1%	82.0%
North Shell Fish Camp	12	5	0	0	41.7%	0.0%
Parramores Fish Camp of Astor	45	20	0	0	44.4%	0.0%
Pier 44 Marina	53	46	80	50	86.8%	62.5%
Pine Island Marina	40	30	0	0	75.0%	0.0%
Rivera Resort and Marina	120	65	0	0	54.2%	0.0%
Sanford Boat Works	168	157	0	0	93.5%	0.0%
		3	0	0		
Shady Oak Fish Camp **	4		-	-	75.0%	0.0%
South Moon Fish Camp	36	13	0	0	36.1%	0.0%
Sunrise Fish Camp	21	16	0	0	76.2%	0.0%
Tedder's Fish Camp	17	7	0	0	41.2%	0.0%
Traders Cove Subdivsion	35	35	0	0	100.0%	0.0%
Topical Apartments and Marina	55	3	0	0	5.5%	0.0%
Volusia Bar Fish Camp	45	20	0	0	44.4%	0.0%
Totals/SJR Wet/Dry Occupancy:	1955	1459	934	639	75%	68%
Grand Totals:	4094	3291	1660	1335	80%	80%
* Not in operation in 2001 - see 1995	5 data					
** Not surveyed in 1995						
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Volusia County Study Area Marina (Halifax and Indian Rivers						
Marina	Wet Slips	Wet Slips Occ.	Dry Slips	Dry Slips Occ.	% Wet Occ.	% Dry Occ.
Adventure Yacht Club	150	150	0	0	100.0%	0.0%
Aloha Marina *	0	0	0	0	0.0%	0.0%
Angler's Yacht Club	17	12	10	8	70.5%	80.0%
Aunt Catfish **	10	7	0	0	70.0%	0.0%
Bouchelle Island Condo **	85	31	30	18	36.4%	60.0%
Brigadoon Fish Camp *	0	0	0	0	0.0%	0.0%
Camereon's Marina	42	35	0	0	83.3%	0.0%
Captain's Quarter Condo	4	4	0	0	100.0%	0.0%
Causeway Marina	40	40	70	70	100.0%	100.0%
City of New Symrna Beach Marina	40	40	0	0	100.0%	0.0%
Critter Fleet	10	7	0	0	70.0%	0.0%
Daytona Beach Riverhouse **	10	10	0	0	100.0%	0.0%
Daytona Marine and Boat Works	300	270	0	0	90.0%	0.0%
Diamond Head Point Condo **	35	35	0	0	100.0%	0.0%
Edgewater Landing **	0	0	134	134	0.0%	100.0%
English Jim's Marina	85	60	0	0	70.5%	0.0%
English Jim's Marina Fishin' Cove	15	15	90	90	100.0%	100.0%
	15		0	0	100.0%	0.0%
Gerry's Marina Goodrich Seafood *	15 0	15 0	0	0		0.0%
		-			0.0%	+
Halifax Harbor Marina	560	532	49	49	95.0%	100.0%
Halifax Harbor Yacht Club	39	36	0	0	92.3%	0.0%
Howard's Bait and Tackle	7	5	0	0	71.4%	0.0%
Indian Mound Fish Camp	0	0	0	0	0.0%	0.0%
Inlet Cove	11	11	0	0	100.0%	0.0%
Inlet Harbor (95" was Ponce D.W. Landing)	45	39	230	225	86.6%	97.8%
Inlet Marina Condo **	64	64	0	0	100.0%	0.0%
J.B's Fish Camp **	8	2	0	0	25.0%	0.0%
King's Seafood **	11	11	0	0	100.0%	0.0%
Lefil's	25	13	0	0	52.0%	0.0%
Lighthouse Boat Yard	23	23	0	0	100.0%	0.0%
Lopez Fish Camp	49	19	0	0	38.8%	0.0%
Marina Bay Condo **	16	3	0	0	18.8%	0.0%
Marina Point Condo **	37	34	0	0	91.9%	0.0%
Marina Port Orange	40	40	20	10	100.0%	50.0%
Marker 33 **	38	24	0	0	63.2%	0.0%
Matthew's Marina (95" was Images Marine)	20	16	0	0	80.0%	0.0%
Riverplace 100 **	8	5	0	0	62.5%	0.0%
Riverview Hotel **	8	3	0	0	37.5%	0.0%
Sea Harvest **	0	0	0	0	0.0%	0.0%
Seabreeze Bridge **	60	56	0	0	93.3%	0.0%
Seven Seas Marina	40	40	68	68	100.0%	100.0%
Symrna Yacht Club	77	67	0	0	87.0%	0.0%
The Fishin' Store (95" was Seafarer Marine)	6	6	0	0	100.0%	0.0%
Thirty Eight Live Bait **	18	18	1	0	100.0%	0.0%
Tomoka Boat Club	31	14	24	24	45.2%	100.0%
Venetian Villas	28	14	0	0	50.0%	0.0%
Waterway East and West Condo	12	6	0	0	50.0%	0.0%
Totals/ICW Wet/Dry Occupancy:	2139	1832	726	696	86%	96%
* Not in operation in 2001 - see 1995 data						
** Not surveyed in 1995						
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totals for numbers of wet and dry slips.		ory Coo. coluin	iio weie al	Tivod at by usi	ng the illiar	

St. Johns River Marina	Wet Slips	Wet Slips Occ.	Dry Slips	Dry Slips Occ.	% Wet	% Dry
Blair's Jungle Den	15	7	0	0	46.7%	0.0%
Boat Show Marina	170	153	60	30	90.0%	50.0%
Halls Lodge	60	45	0	0	75.0%	0.0%
Highbanks Marina	72	72	50	50	100.0%	100.0%
Highland Park Fish Camp	88	50	75	30	56.8%	40.0%
Holly Bluff Marina	55	55	10	5	100.0%	50.0%
Hontoon Island State Park **	52	7	0	0	13.5%	0.0%
Hontoon Landing Marina	65	45	0	0	69.2%	0.0%
Kyp's Fish Camp	20	13	0	0	65.0%	0.0%
Lake Beresford Yacht Club	49	27	0	0	55.0%	0.0%
Meadowlea On The River **	50	30	0	0	60.0%	0.0%
North Shell Fish Camp	12	5	0	0	16.7%	0.0%
Parramores Fish Camp of Astor	45	20	0	0	44.4%	0.0%
Pine Island Marina	40	30	0	0	75.0%	0.0%
Rivera Resort and Marina	120	65	0	0	54.2%	0.0%
Shady Oak Fish Camp **	4	3	0	0	75.0%	0.0%
South Moon Fish Camp	36	13	0	0	36.1%	0.0%
Sunrise Fish Camp	21	16	0	0	76.2%	0.0%
Tedder's Fish Camp	17	7	0	0	41.2%	0.0%
Traders Cove Subdivsion	35	35	0	0	100.0%	0.0%
Topical Apartments and Marina	55	33	0	0	5.5%	0.0%
Volusia Bar Fish Camp	45	20	0	0	44.4%	0.0%
Totals/SJR Wet/Dry Occupancy:	1126	721	195	115	64%	59%
Grand Totals:	3265	2553	921	811	78%	60%
Grand Totals.	3203	2000	321	011	70/0	0078
* Not in operation in 2001 - see 1995 data	<u> </u>					
** Not surveyed in 1995	<u>'</u>					
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for the St. Johns and Halifax/Ir	idian Rive	rs combined.				
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ICW And St. Johns Combined Total	s And Slip Occu	pancy Rate 2001	,
Area Of Focus	Wet and Dry Supply	Wet and Dry Demand	Slip Occupancy Rate
Marinas Surveyed Halifax/Indian Rivers	2865	2528	88%
Marinas Surveyed St. Johns River	2889	2098	73%
Combined	5754	4626	80%
Study Area Halifax/Indian Rivers	2865	2528	88%
Study Area St. Johns River	1321	836	63%
Combined	4186	3364	80%

Volusia	County Boar	ter Re	gistration Pro	ojections 20	000 - 2020		
Year	Registered Boats	%	SJR Demand	ICW Demand	Projected Demand	2001 Supply	Surplus Deficit
2000	24,202	13.8	835	2,505	3,340	4,176	836
2005	27,604	13.8	952	2,857	3,809	4,176	367
2010	31,484	13.8	1,086	3,259	4,345	4,176	-169
2015	35,909	13.8	1,239	3,717	4,955	4,176	-779
2020	40,956	13.8	1,413	4,239	5,652	4,176	-1,476

^{*} The above table represents projected values. Actual 2000 figures are as follows: SJR demand is 836, the ICW is 2,518. Wet and dry demand is 3,354. 2000 supply is 4,176, and surplus is 822.

Marina Su	oply and Demand ICW		
Year	Projected Demand	2000 supply	Surplus Deficit
2000	2505	2855	350
2005	2857	2855	-2
2010	3259	2855	-404
2015	3717	2855	-862
2020	4239	2855	-1384
Marina Su	oply and Demand SJR		
Year	Projected Demand	2000 Supply	Surplus Deficit
2000	835	1,321	486
2005	952	1,321	369
2010	1,086	1,321	235
2015	1,239	1,321	82
2020	1,413	1,321	-92

Available Marina Facilities In Volusia (County 199	95 - Table 1	9
ICW			
Marina Name	Wet Slips	Dry Slips	
Adventure Yacht Harbor	137	0	
Aloha Marine	13	80	
Angler's Yacht Club	41	20	
Aunt Catfish Restaurant	10	0	
Brigadoon's Fish Camp	10	0	
Cameron's Marina	30	6	
Causeway Marina	36	80	
City of New Symrna Beach Marina	42	0	
Daytona Beach Marina and Boat Works	100	0	
Dixie Queen Landing	67	0	
English Jim's Marina	80	20	
Fishin' Cove Marina	15	80	
	15	0	
Gerry's Marina			
Halifax Harbor Marina	522	0	
Halifax River Yacht Club	33	0	
Howard's Bait and Tackle	7	0	
Images Marina	25	0	
Inlet Cove Marina	10	0	
Lighthouse Boat Yard	21	12	
Lopez Fish Camp/ RV Park	34	0	
Marina Port Orange	40	0	
Ponce Deepwater Landing	54	225	
Red's Bait and Tackle	12	0	
Seven Seas Marina	40	100	
Smyrna Yacht Club	54	0	
Tomoka Boat Club	33	10	
Totals:	1480	633	
SJR			
Marina Name	Wet Slips	Dry Slips	
Blair's Jungle Den	20	0	
Boat Show Marina	175	60	
Hall's Lodge	65	0	
Highbanks Marina	72	25	
Highland Park Fish Camp	89	76	
Holly Bluff Marina	55	10	
Hontoon Landing Marina	52	0	
Kyp's Fish Camp	20	0	
Lake Beresford Yacht Club	49	0	
North Shell Fish Camp	11	0	
Paramore's Campground	34	0	
Pine Island Marina	26	0	
Riviera Resort and Marina	120	0	
South Moon Fish Camp	30	0	
•	41	0	
Sunrise Fish Camp			
Sunrise Fish Camp Tedder's Fish Camp	15	0	
Sunrise Fish Camp Tedder's Fish Camp Tropical Apartments and Marina	15 51	4	
Sunrise Fish Camp Tedder's Fish Camp	15		

All Ramps Survyed Bethune Point	#Ramps		•						
Bethune Point	1	#Lanes	#Lanes Public Ramps Surveyed	#Ramps	#Lanes	Private Ramps Surveyed	#Ramps	#Lanes	
	1	2	Bethune Point	1	2	Bouchelle Island	1	1	
Bisset Bay	1	1	Bisset Bay	1	1	Edgewater Landing	1	1	
Bouchelle Island	1	1	Cameron's Marina	1	1	Hacienda Del Rio	1	1	
Cameron's Marina	1	1	Canaveral National Seashore **	1	2	Marina Port Orange **	1	1	
Canaveral National Seashore **	1	2	City Island Park	1	1	Saw Grass Subdivision	1	1	
City Island Park	1	1	Goodrich Seafood *	1	1	Tomoka View **	1	1	
Edgwater Landing	1	1	Granada Bridge	2	4	Tierra Mar **	1	1	
Goodrich Seafood *	1	1	Halifax Harbor Marina	1	80	Unamed Ramp - private	1	1	
Granada Bridge	2	4	Highbridge	1	2	Totals:	8	80	
Hacienda Del Rio	1	1	Indian Mound	1	1				
Halifax Harbor Marina	1	8	Inlet Harbor ***	1	1				
Highbridge	1	2	2 J.B's Fish Camp *	1	1				
Indian Mound	1	1	1 Kennedy Memorial Park	1	9				
Inlet Harbor ***	1	1	1 Lighthouse Park	1	2				
J.B's Fish Camp *	1	1	1 Lefill's Fish Camp **	1	1				
Kennedy Memorial Park	1	9	6 Lopez Fish Camp	1	1				
Lighthouse Park	1	2	2 Menard May Park	1	2				
Lefill's Fish Camp	1	1	N. Causeway Park	2	8				
Lopez Fish Camp	1	1	1 Port Orange Causeway I	3	9				
Marina Port Orange **	1	1	Port Orange Causeway II	1	1				
Menard May Park	1	2	River Breeze Park **	1	4				
N. Causeway Park	2	8	River Front Veterans Park	1	2				
Port Orange Causeway I	3	9	Sanchez Park	1	2				
Port Orange Causeway II	1	1	Seabreeze Bridge **	2	5				
River Breeze Park **	1	4	Sunrise Park	1	1				
River Front Veterans Park	1	2	Tomoka Estates	1	1				
Sanchez Park	1	2	Tomoka State Park	1	1				
Saw Grass Subdivion	1	1	Turtle Mound *	1	1				
Seabreeze Bridge **	5	5	Unamed Dirt Ramp **	1	1				
Sunrise Park	1	1	Totals:	37	20				
Tierra Mar	1	1							
Tomoka Estates	1	1							
Tomoka State Park	1	1							
Tomoka View **	1	1							
Turtle Mound *	1	1		* Ramp nc	* Ramp not operational	inal			
Unamed Dirt Ramp **	1	1		** Not sur	** Not surveyed in 1995	995			
Unnamed Ramp - private **	1	1		*** Previou	us proper	*** Previous property of Ponce Deepwater Landing - n	- now Inlet Harbor and	ırbor and	
Totals:	3: 45	78		Riptide Bait & Tackle	it & Tackl	9			

Available Boat Ramp Facilities in 2001	ities in 20	_	St. Johns River Study Area					
All Ramps Survyed	#Ramps	#Lanes	Public Ramps Surveyed	#Ramps	#Lanes	Private Ramps Surveyed	#Ramps	#Lanes
Blair's Jungle Den *	1	1	Blair's Jungle Den *	1	1	Lakeview Terrace	1	1
Boat Show Marina *	2	2	Boat Show Marina *	2	2	Meadowlea on the River ***	1	1
DeLeon Springs State Park	1	1	DeLeon Springs State Park	1	1	River Oaks Estates ***	1	1
Ed Stone Park	1	9	Ed Stone Park	1	9	Stone Island Ramp	1	1
Florida Power & Light Ramp	1	1	Florida Power & Light Ramp	1	1	Totals:	4	4
French Avenue Ramp	1	1	French Avenue Ramp	1	1			
Hall's Lodge *	1	1	Hall's Lodge *	1	1			
Highland Park Fish Camp *	1	2	Highland Park Fish Camp *	1	2			
Highland Park Remote	1	1	Highland Park Remote	1	1			
Highbank's Ramp	1	1	Highbank's Ramp	1	1			
Holly Bluff Marina *	1	1	Holly Bluff Marina *	1	1			
Hontoon Landing Marina *	1	1	Hontoon Landing Marina *	1	1			
Kyp's Fish Camp **	1	1	Kyp's Fish Camp **	1	1			
Lake Beresford Yacht Club	1	1	Lake Beresford Yacht Club	1	1			
Lake Monroe Park	2	4	Lake Monroe Park	2	4			
Lake Monroe Wayside Ramp	1	2	Lake Monroe Wayside Ramp	1	2			
Lakeview Terrace	1	1	Lemon Bluff Ramp	1	2			
Lemon Bluff Ramp	1	2	Mariner's Cove Park	1	1			
Mariner's Cove Park	1	1	Nine Mile Ramp	1	1			
Meadowlea on the River ***	1	1	North Shell Fish Camp *	1	1			
Nine Mile Ramp	1	1	Paramore's Campground *	1	1			
North Shell Fish Camp *	1	1	Pine Island Marina	1	1			
Paramore's Campground *	1	1	Riverfront Park ***	1	1			
Pine Island Marina	1	1	Riviera Resort & Marina	1	1			
Riverfront Park ***	1	1	Shady Oak Fish Camp	1	1			
River Oaks Estates ***	1	1	Shell Harbor Ramp	1	1			
Riviera Resort & Marina	1	1	South Moon Fish Camp	1	1			
Shady Oak Fish Camp	1	1	Sunrise Fish Camp	1	1			
Shell Harbor Ramp	1	1	Tedder's Fish Camp	1	1			
South Moon Fish Camp	1	1	Tropical Apts. & Marina	1	1			
Stone Island Ramp	1	1	Volusia Bar Fish Camp	1	1			
Sunrise Fish Camp	1	1	Totals	33	43			
Tedder's Fish Camp	1	1						
Tropical Apts. & Marina	1	7				*Data collected by 2001 marina surveys		
Volusia Bar Fish Camp	1	1				** Ramp not operational in 2001		
						*** New ramp not surveyed in		
Totals:	37	47				1995		

Volusia County Public Boa	t Ramp Su	rveys 199	5 and	2001	1				
ICW									
1995 Ramp Surveys	# Ramps	# Lanes	Pub.	Pvt.	2001 Ramp Surveys	# Ramps	# Lanes	Pub.	Pvt.
Betune Point	1	2	*		Bethune Point	1	2	*	
Bisset Bay	1	1	*		Bisset Bay	1	1	*	
Cameron's Marina	1	1	*		Bouchelle Island Condo *	1	1		*
City Island Park	1	1	*		Cameron's Marina *	1	1	*	
Goodrich's Seafood	1	1	*		Canaveral National Seashore ***	1	2	*	
Granada Bridge	2	4	*		City Island Park	1	1	*	
Halifax Harbor	1	8	*		Edgewater Landing *	1	1		*
Highbridge Park	1	2	*		Goodrich Seafood **	1	1	*	
Indian Mound	1	1	*		Granada Bridge	2	4	*	
J.B.'s Fish	1	1	*		Hacienda del Rio	1	1		*
Kennedy Memorial Park	1	6	*		Halifax Harbor Marina *	1	8	*	
Lefil's Fish Camp	1	1		*	Highbridge	1	2	*	
Lighthouse Park	1	1	*		Indian Mound *	1	1	*	
Lopez Fish Camp	1	1	*		Inlet Harbor * * * *	1	1	*	
Menard May Park	1	2	*		J.B.'s Fish Camp *	1	1	*	
North Causeway Park	2	8	*		Kennedy Memorial Park	1	6	*	
Ponce Deepwater Landing ****	1	1	*		Lefil's Fish Camp *	1	1	*	
Port Orange Causeway	1	1	*		Lighthouse Park	1	2	*	
Port Orange Causeway I	1	2	*		Lopez Fish Camp *	1	1	*	
Port Orange Causewayll	1	4	*		Marina Port Orange ***	1	1		*
River Breeze Park	1	4	*		Menard May Park	1	2	*	
Riverfront Park	1	2	*		N. Causeway Park	2	8	*	
Sanchez Park	1	2	*		Port Orange Causeway I	3	6	*	
Sunrise Park	1	1	*		Port Orange Causeway II	1	1	*	
Tomoka Estates	1	1	*		River Breeze Park ***	1	4	*	
Tomoka State Park	1	1	*		Riverfront Veterans	1	2	*	
Turtle Mound	1	1	*		Sanchez Park	1	2	*	
Totals:	29	61			Sawgrass Subdivision	1	1		*
75445					Seabreeze Bridge ***	5	5	*	
					Sunrise Park	1	1	*	
					Tierrs Mar ***	1	1		*
					Tomoka Estates	1	1	*	
					Tomoka State Park	1	1	*	
					Tomoka View	1	1		*
					Turtle Mound **	1	1	*	
					Unamed Dirt Ramp Spruce Creek***	1	1	*	
					Unnamed Ramp - private ***	1	1		*
					Totals:	-	78		
					Totals.	40	70		
							-		
*Data collected by 2001 marina surveys									
** Ramp not operational in 2001									
*** New ramp not surveyed in 1995									
* * * * Previous property of Ponce Deepwater Landing is now Inlet Harbor and Riptide Bait and Tackle									

Volusia County Public Boat	Ramp Su	rveys 199	5 and	2001					
SJR									
1995 Ramp Surveys	# Ramps	# Lanes	Pub.	Pvt.	2001 Ramp Surveys	# Ramps	# Lanes	Pub.	Pvt.
Blair's Jungle Den	1	1	*		Blair's Jungle Den *	1	1	*	
Boat Show Marina	1	1	*		Boat Show Marina *	2	2	*	
DeLeon Springs State Park	1	1	*		DeLeon Springs State Park	1	1	*	
Ed Stone Park	1	6	*		Ed Stone Park	1	6	*	
Florida Power & Light Ramp	1	1	*		Florida Power & Light Ramp	1	1	*	
French Avenue Ramp	1	1	*		French Avenue Ramp	1	1	*	
Hall's Lodge	1	1	*		Hall's Lodge *	1	1	*	
Highland Park Fish Camp	1	2	*		Highland Park Fish Camp *	1	2	*	
Highland Park Remote	1	1	*		Highland Park Remote	1	1	*	
Highbank's Ramp	1	1	*		Highbank's Ramp	1	1	*	
Holly Bluff Marina	1	1	*		Holly Bluff Marina *	1	1	*	
Hontoon Landing Marina	1	1	*		Hontoon Landing Marina *	1	1	*	
Kyp's Fish Camp	1	1	*		Kyp's Fish Camp **	1	1	*	
Lake Monroe Park	2	3	*		Lake Beresford Yacht Club	1	1	*	
Lake Monroe Wayside Ramp	1	1	*		Lake Monroe Park	2	4	*	
Lakeview Marina Ramp	1	1		*	Lake Monroe Wayside Ramp	1	2	*	
Lemon Bluff Ramp	1	1	*		Lakeview Terrace	1	+		*
Mariner's Cove Park	1	1	*		Lemon Bluff Ramp	1	2	*	
Nine Mile Ramp	1	1	*		Mariner's Cove Park	1	1	*	
North Shell Fish Camp	1	1	*		Meadowlea on the River ***	1	1		*
Paramore's Campground	1	1	*		Nine Mile Ramp	1	1	*	
Pine Island Marina	1	1	*		North Shell Fish Camp *	1	1	*	
Riviera Resort & Marina	1	1	*		Paramore's Campground *	1	1	*	
Shell Harbor Ramp	1	1	*		Pine Island Marina	1	1	*	
Shell Landing Ramp	1	1	*		Riverfront Park ***	1	1	*	
Sloan's Fish Camp	1	1	*		River Oaks Estates ***	1	1		*
South Moon Fish Camp	1	1	*		Riviera Resort & Marina	1	1	*	
Sunrise Fish Camp	1	1	*		Shady Oak Fish Camp	1	1	*	
Tedder's Fish Camp	1	1	*		Shell Harbor Ramp	1	1	*	
Tropical Apts. & Marina	1	1	*		South Moon Fish Camp	1	1	*	
Volusia Bar Fish Camp	1	1	*		Stone Island Ramp	1	1		*
Totals:	32	39			Sunrise Fish Camp	1	1	*	
					Tedder's Fish Camp	1	1	*	
					Tropical Apts. & Marina	1	1	*	
					Volusia Bar Fish Camp	1		*	
					Totals:	37	47		
					. State	<u> </u>	.,		
*Data collected by 2001 marina surveys									
** Ramp not operational in 2001									
*** New ramp not surveyed in 1995									
New ramp not surveyed in 1995									

The following is excerpted from the Volusia County Boating Activity Study, Final Report, July 1996.

Mosquito Lagoon was the most popular boating destination on the ICW. The majority of the boats in this area are Class A and Class I power boats engaged in recreational fishing. The data to support this was gathered primarily from the aerial surveys and from ramp interviews at two ramps: Haulover Canal ramp and Turtle Mound ramp. In addition, boat ramp trailer census data from the Kennedy Park ramp in Edgewater revealed heavy usage. These three ramps provide direct access to Mosquito Lagoon. The fishing takes place on the west side of the ICW channel and the vast expanse to the east of the channel. The east side of the channel is commonly referred to as the "back country." (Section 5, Intracoastal Waterway Data Analysis, 5.5 Spatial Analysis, page 110.)

The second most popular destination is Ponce Inlet. This area has several unique features that are important to boaters. First, it is the only access to the ocean for more than 60 miles north or south. All types of craft utilize the inlet to access the ocean for recreational and commercial fishing, as well as offshore sailing. The inlet area has a concentration of large, commercial fishing boats (Class 3) that engage in commercial fishing, as well as fishing charters for recreational fishermen. (Section 5, Intracoastal Waterway Data Analysis, 5.5 Spatial Analysis, page 110.)

The next most popular destination is the Tomoka River/Tomoka Basin. The basin is used primarily for recreational fishing, while the river is used for a variety of activities, such as recreational fishing and water-skiing. In addition, Tomoka State Park is located on the river and is used by boaters for picnicking and accessing the park's other features. The primary types of boats that frequent this area are Class A and Class I powerboats and pontoon boats. (Section 5, Intracoastal Waterway Data Analysis, 5.5 Spatial Analysis, page 111.)

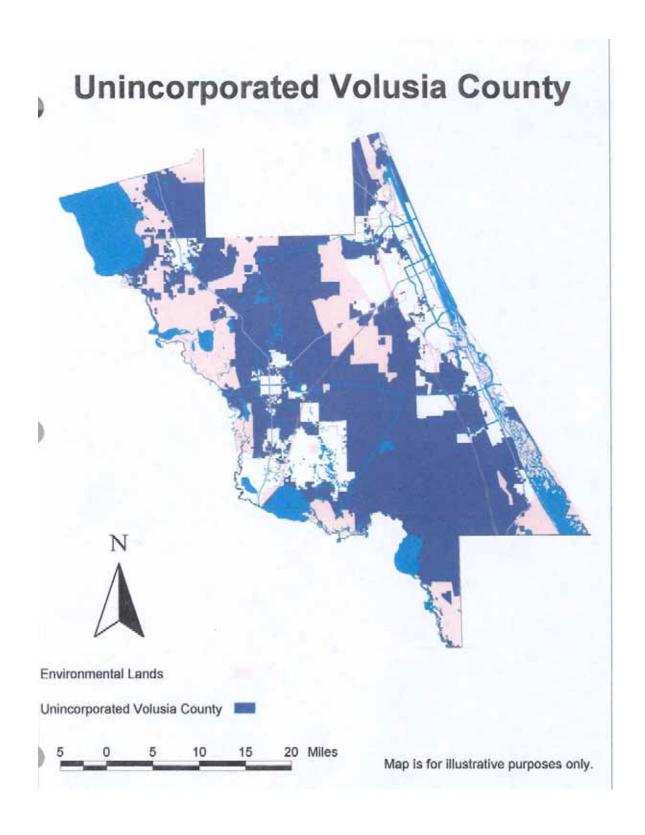
Silver Glen Springs was the most common destination for boaters on the SJR, especially in the summer (791 observations.) Over one hundred boats have been observed in this area at one time using aerial surveys. A total of 291 boaters out of 815 who were interviewed named this site as their destination. The majority of boaters launching from the two ramps in Astor (Butler Street and Midway Marine) indicated during the interviews that their destination was Silver Glen Springs. In addition, boaters interviewed at Ed Stone Park ramp in DeLand also indicated that this was their destination. Aerial survey data supports the interview survey data that boat traffic is very heavy on weekends leading to/from Astor and Silver Glen Springs (617 observations.) The types of boats observed at Silver Glen Springs covered all categories, from Class 3 houseboats to personal watercraft. The other unique factor about this location is the number of boaters who stayed at the springs on their boats all weekend. This was the only location on either water body that had this type of boating activity. (Section 6, St. Johns River Data Analysis, 6.5 Spatial Analysis, page 120.)

Other major destinations on the SJR included Blue Spring State Park, Hontoon Island State Park, and the Wekiva River. Blue Spring is a popular destination for picnicking and swimming in the summer and for observing manatees during the winter (159 observations.) Hontoon Island is a popular picnicking destination, and Wekiva Springs is a popular swimming and travelling destination. (Section 6, St. Johns River Data Analysis, 6.5 Spatial Analysis, page 123.)

Volusia County Boating Activity Study, Final Report, July 1996

Available Upon Request

Attachment O: Map of Unincorporated Volusia County



Attachment P: Recommendations to the Governor and Cabinet, 1989

Attachment K

MANATEE PROTECTION PLAN GUIDELINES

Area-specific manatee protection plans need to be developed by all counties in which manatees regularly occur to ensure the long-range protection of the species and its habitat. The objectives of manatee protection plans are: to reduce the number of boat-related manatee mortalities; to achieve an optimal sustainable manatee population (the goal of the Marine Mammal Protection Act); to protect manatee habitat; to promote boating safety; and to increase public awareness of the need to protect manatees and their environment. These plans will address manatee-human interactions, land use (including boat facility siting), and the protection of suitable habitat (including water quality, thermal refugia, freshwater sources, and grass beds). The information needed to prepare manatee protection plans will include manatee studies, habitat assessments, and, if available, boating studies to evaluate boater use patterns and activities.

Boat facility siting elements are necessary components of area-specific manatee protection plans. Boat facility siting must address marinas with wet slips and dry storage, and boat ramps. The objectives of boat facility siting plans are: to determine appropriate dock densities for particular areas; and to develop criteria for designating special use areas (i.e., for water skiing, jet skiing and commercial fishing).

Necessary components of a manatee protection plan are:

An Information Base

- a. location and capacity of all marina facilities (including dry storage) in the county (proposed and existing);
- b. location of all boat ramps in the county (proposed and existing);
- c. boating activity patterns, including travel routes and major destination areas;
- d. manatee sighting information for the county;
- e. manatee mortality information for the county;
- f. any aquatic preserves, Outstanding Florida Waters or other refuge/reserve information;
- g. port facility information;

- h. location of significant habitat resources, such as grass beds, warm water discharges and fresh water sources;
- i. location of manatee protection and boating safety speed zones in the county (proposed and existing);
- j. location of manatee information displays; and
- k. other relevant data as determined by the Department of Natural Resources.

Recommendations--with an Accompanying Implementation Schedule--to Increase Manatee Protection in the County

- a. boating expansion criteria;
- identification of recommended areas for water-related activities requiring high boat speeds, such as water skiing, boat races and certain types of commercial fishing;
- c. a plan for marking navigation channels in currently unmarked waterways used by manatees;
- d. new or expanded speed zones, refuges or sanctuaries for the regulation of boat speeds in critical manatee areas;
- e. installation of manatee educational displays at all boating facilities;
- f. development and dissemination of a pamphlet to county boaters describing manatee protection and boating safety speed zones in the area, and recommendations for boaters on how to avoid hitting manatees;
- g. inclusion of manatee and marine habitat educational material in the county school board's elementary, middle school and high school curricula;
- development of appropriate aquatic plant control methods in manatee areas;
- identification of land acquisition projects to increase refuges, reserves, and preserves for manatee protection; and
- j. other actions as specified by the Department of Natural Resources.

Attachment Q: Volusia County Zoning Classifications

SPECIFIC TYPES OF MARINAS

Commercial/Recreational Marina: A watercraft complex on and/or adjacent to a waterway which provides services available to the general public and which provides docking for vessels of private, non-residential usage and which are not associated with a subdivision, condominium, duplex, or other multi-family development. Permitted uses may include: rental of wetslips or dry storage space and associated utilities and boat lifting and/or launching, boat rentals, sale of marine fuel and lubricants, wastewater pump-out facilities, sale of fishing bait and equipment, charter boat operations, and/or providing for minor repair services for watercraft, not involving removal of watercraft from the water or removal of inboard or outboard engines from the watercraft. Accessory service uses may include on-shore restaurants and bars, hotels or motels and may also include charter fishing, eco-tours and off-shore casino tours.

This would include commercial marinas, dry storage and boat launching facilities. It also includes restaurants, bars, hotels, motels, charter fishing, eco-tours, and casino tours that have boat mooring capabilities associated with them.

Industrial Marina: Facilities serving largely commercial interests, including commercial boat building, ship repairs or construction, and commercial seafood harvesting and processing. Permitted uses may nelude fueling facilities, repairs and construction, boat production, ship repairs up to 100' or 100 tons, wastewater pump-out facilities, utilities, and commercial sales of fish and farmed/harvested seafood.

Includes commercial boat building, ship repairs, commercial seafood harvesting, processing and sales.

Residential Marina: Community docks of five or more boat slips serving subdivisions, condominiums, duplexes, or other multi-family developments. No fueling or repair facilities shall be associated with these marinas. A private residential marina contains wet slips and/or dry slips used only as accessory to a principal multi-family development use. A public/private residential marina has a portion of its wet slips and/or dry slips designated for rental by the general public, with the remaining wet slips and/or dry slips used accessory to a principal multi-family development use.

Includes condos, subdivisions, duplexes and other multi-family developments.

Boat Ramp: A structural, natural or man-made feature that facilitates the launching and landing of boats into a waterbody. A lane is part of a boat ramp that allows for the launching and landing of one boat at a time. A boat amp can have more than one lane.

A structural, natural or man-made feature that facilitates the launching and landing of boats into a waterbody.

ZONING CLASSIFICATION MATRIX

ZONE	Commercial Marinas	Residential Marinas	Industrial Boatyard	Dry Storage	Boat Ramps	Restaurants
С					X	
RC						100
FR	X	X			Х	
A-1					X	
A-2		**			X	
A-4					X	
_					X	Ť
					X	
RA		×			X	
RE		X			X	
R-1		X			X	
R-2		X			X	
R-3		X			X	
R-4		X			X	
R-5		X			X	
R-6		X			X	
R-7		X			X	
R-8		X			X	
R-9		Х			X	
RPUD		X			X	
MH-1		X			X	
MH-2		X			X	
MH-3		X			X	
MH-4		X			X	
MH-5		X			X	
MH-6		X			Х	
MH-7		X			X	
MH-8		X			X	
B-1						1
B-2						
B-3						X
B-4						X
B-5				×		X
B-6						
B-7	X			X	X	X
B-8						×
B-9						
BPUD	X		X	×		X
1-1						
1-2						
1-3	X		X	X	X	
1-4						
IPUD	X		X	X	X	

ZONING CLASSIFICATION SUMMARY

This is only a summary of the zoning classifications contained within the Volusia County Zoning Ordinance. The Zoning Ordinance should be consulted for complete listing of permitted principal uses, special exception uses, and dimensional standards for each classification. The minimum lot area and minimum residence floor area for residences is provided for each classification below.

Zoning Classifications

Purpose & Intent.

C Conservation

This classification is to be applied to certain lands which are either owned or controlled by a government agency, but it may be applied to privately owned lands upon request of the owner. It is the purpose of this classification to protect and preserve park and recreation areas; historic and archaeologic sites; fishing, wildlife, and forest management areas, and other unusual or unique features. (no minimum lot size)

FR Forestry Resource

This classification is to preserve land that is suited for multiple-use forest management. It is further intended that this classification may permit other compatible agricultural activities and limited personal agricultural production ancillary to the residential use of a lot. Single family residence or mobile home is a principal use.

(20 acres per lot - minimum floor area 750 sq. ft.)

RC Resource Corridor

This classification is to provide protected, natural corridors consisting of environmentally sensitive and ecologically significant lands which connect to other protected areas such as parks and water bodies. The corridor shall provide a contiguous hydroecological pathway, where the wetlands and uplands are integrated and conducive to the maintenance and perpetuation of the system. Single family residence is a principal use. (25 acres per lot - minimum floor area 750 sq .ft.)

A-1 Agriculture This classification is to preserve valuable Prime agricultural land for intensive agricultural uses, and to protect land best suited for agricultural uses from the encroachment of incompatible land uses. Single family residence or mobile home is a principal use. (10 acres per lot - minimum floor area 750 sq .ft.)

A-2 Agriculture This classification is to preserve and protect rural areas of the county that have some agricultural value, but which are also suitable for rural estate living. A single family residence is a permitted principal use. (5 acres per lot - minimum floor area 750 sq. ft.)

A-3
Transitional
Agriculture

This classification is to preserve and protect small farms for personal and limited agricultural production or to provide a transitional agricultural zone between more intensive agricultural use areas and residential areas. It is intended that this classification be applied to properties which are within a designated rural community, to preserve existing agricultural uses in urban areas as depicted by the comprehensive plan, or to properties so as to coincide with the existing character of an area in a manner consistent with the comprehensive plan. A single family residence is a principal use.

(1 acre per lot - minimum floor area 1000 sq. ft.)

RA Rural Agricultural Estate This classification is to provide for development, consistent with the comprehensive plan, in rural areas of the county. These lands are unsuited generally for commercial agricultural production because of odd lot configurations, undeveloped platted subdivisions, poor soil conditions, or lack of positive drainage outfall. Despite these facts there are some suitable sites for single-family dwellings and personal agricultural production. A single family residence is a principal use.

(2 1/2 acres per lot - minimum floor area 1000 sq. ft.)

(2 1/2 acres per 10t - millimum 1100r art

RR Rural Residential This classification is to provide for development, in a manner which is consistent with the comprehensive plan, in rural areas of the county. A single family residence is a principal use.
(1 acre per lot - minimum floor area 1000 sq. ft.)

R-1 & R-2 Urban Single-Family Residential These classifications are to provide low-density residential developments, preserving the character of existing or proposed residential neighborhoods. A single family residence is a principal use. (R-1, 20,000 sq. ft. lot - minimum floor area 1500 sq. ft.) (R-2, 12,500 sq. ft. lot - minimum floor area 1200 sq. ft.)

R-3 Urban Single-Family Residential This classification, is to provide medium-low-density residential developments, preserving the character of existing or proposed residential neighborhoods. A single family residence is a principal use. (10.000 sq. ft. lot - minimum floor area 1000 sq. ft.)

R-4 & R-5 Urban Single-Family Residential These classifications are to provide medium-density residential developments, preserving the character of existing or proposed residential neighborhoods. Single family residence is a principal use. (R-4, 7,500 sq. ft. lot - minimum floor area 850 sq. ft.) (R-5, 6,000 sq. ft. lot - minimum floor area 750 sq. ft.)

R-6 Urban Two-Family Residential This classification is to provide for a mixture of one- and two-unit dwellings where that mixture of land use exists or is proposed. Single and two family dwellings are principal uses; multifamily development at a maximum density of 8 units per acre is a special exception.

(Single Family - 7,500 sq. ft. lot)

(Two-family - 11,000 sq. ft. lot)

(Minimum floor area is 600 sq. ft.)

R-7 Urban Multifamily Residential This classification is to provide for multifamily residential living where high-density residential developments exist or are proposed. Multifamily dwellings and townhouses are principal uses. (14 units per net acre of land)

R-8 Multifamily Residential This classification is to provide for multifamily residential projects in urban areas of the county. Multifamily dwellings and townhouses are principal uses. (20 units per net acre of land)

R-9 Urban Single-Family Residential This classification, is to provide for continued medium density single family dwelling residential development on existing platted lots. A single family residence is a principal use. (7,500 sq. ft. lot - minimum floor area 1000 sq. ft.)

MH-1 Mobile Home Park This classification is to provide areas for the use and development of medium density mobile home parks. Mobile homes are principal uses.

(Minimum park size 10 acres with a maximum density of 7 units per net acre of land - minimum floor area 480 sq. ft.)

MH-2 Mobile Home Park Recreational Vehicle Park This classification is to provide areas for the use and development of medium density combined or and separate mobile home parks or recreational vehicle parks. Mobile homes and RVs are principal uses. (Minimum park size 10 acres with a maximum density of 7 units per net acre - minimum floor area 480 sq. ft. for mobile homes.)

MH-3 Rural Mobile Home This classification is to provide areas for low-density mobile home dwellings. A single family residence or mobile home is a principal use.
(5 acres per lot - minimum floor area 720 sq. ft.)

MH-4 Rural Mobile Home This classification is to provide for development, in a manner which is consistent with the comprehensive plan, in rural areas of the county and to accommodate existing areas that are predominantly a mixture of single-family and mobile home dwellings. Single family residence or mobile home is a principal use. (1 acre per lot - minimum floor area 720 sq. ft.)

MH-5 Urban Mobile Home Subdivision This classification is to provide medium-density areas for mobile home subdivisions. Mobile home is a principal use. Single family residence is a special exception.

(6,000 sq. ft. per lot - minimum floor area 720 sq. ft.)

MH-6 Urban Mobile Home Subdivision This classification is to provide areas for low-medium mobile home subdivisions. Mobile home is a principal use. (10,000 sq. ft. per lot - minimum floor area 720 sq. ft.)

MH-7 Mobile Home Park This classification is to provide areas for the use and development of low-medium mobile home parks. (Minimum park size 10 acres with a maximum density of 4 units per net acre of land - minimum floor area 720 sq. ft.)

MH-8 Rural Mobile Home Estate This classification is to provide for development, consistent with the comprehensive plan, in rural areas of the county. These lands are unsuited generally for commercial agricultural production because of odd lot configurations, undeveloped but platted subdivisions, poor soil conditions, or lack of positive drainage outfall. Despite these facts there are some suitable sites for single-family dwellings and personal agricultural production. Single family residence or mobile home is a principal use.

(2 1/2 acres per lot - minimum floor area 750 sq. ft.)

B-1 Office, Hospital-Medical This classification is to provide areas for General professional and medical uses. (minimum lot size - 20,000 sq. ft.)

B-2 Neighborhood Commercial This classification is to provide a limited commercial convenience facility, servicing nearby residential neighborhoods, planned and developed as an integral unit.

(minimum lot size - 20,000 sq. ft.)

B-3 Shopping Center This classification is to provide shopping centers where compatible business establishments will be planned, organized and grouped in a unified arrangement. Such centers should be designed of sufficient dimension to satisfy all off-street parking needs, and be located along major arterial streets, where the traffic generated can be accommodated in a manner consistent with the public health, welfare and safety. (minimum project size - 10 acres)

B-4 General Commercial This classification is to encourage the development of intensive commercial areas providing a wide range of goods and services, and located adjoining at least one major collector or arterial road. The B-4 classification is intended to be applied to existing or developing strip retail areas which, because of the

nature of existing development, are not appropriate for inclusion in the B-3 Shopping Center classification. (minimum lot size - 15,000 sq. ft.)

B-5 Heavy Commercia This classification is to provide areas for commercial uses and structures that are not generally compatible with B-4 uses and structures. (minimum lot size 15,000 sq. ft.)

B-6 Highway Interchange Commercial This classification is to provide a specialized classification for hotels, motels and tourist-related retail facilities near major highway interchanges. (minimum lot size 20,000 sq. ft.)

B-7 Commercial other Marina This classification is to provide appropriate locations for pleasure or commercial boats and water-oriented facilities. Its application is primarily intended along the Halifax, Indian and St. Johns Rivers and other water bodies or watercourses. (minimum lot size 20,000 sq. ft.)

B-8Tourist
Classification

This classification is to provide areas for tourist-related uses and accommodations. The classification is a specialized one, designed to protect and enhance the tourist economy of the county. (minimum lot size 7,500 sq. ft.)

B-9 General Office This classification is to provide areas for general office use. It is intended that this classification apply to suitable properties which are situated in urban areas to provide a transitional area between residential development and more intensive land uses. (minimum lot size 20,000 sq. ft.)

I-1 Light Industrial This classification is to provide sufficient space in appropriate locations for industrial operations engaged in the fabricating, repair or storage of manufactured goods of such a nature that objectionable by-products of the activity (such as odors, smoke, dust, refuse, electro-magnetic interference, noise in excess of that customary to loading, unloading and handling of goods and materials) are not nuisances beyond the lot on which the facility is located. (minimum lot size 20,000 sq. ft.)

I-2 Heavy Industrial This classification is to provide for industrial operations of all types, provided they meet the minimum performance standards of the zoning ordinance. (minimum lot size 20,000 sq. ft.)

I-3 Waterfront Industrial This classification is to provide for and preserve land in appropriate locations for industrial uses which require or are particularly suited to a water location.

(minimum lot size 20,000 sq. ft.)

I-4 Industrial Park This classification is to provide sites for planned industrial development which are capable of being operated under high standards as to location and appearance of buildings, and to provide opportunities for employment closer to places of residence. (minimum park size - 10 acres) (minimum lot size - 20,000 sq. ft.)

PUD Planned Unit Development

Residential

B Business

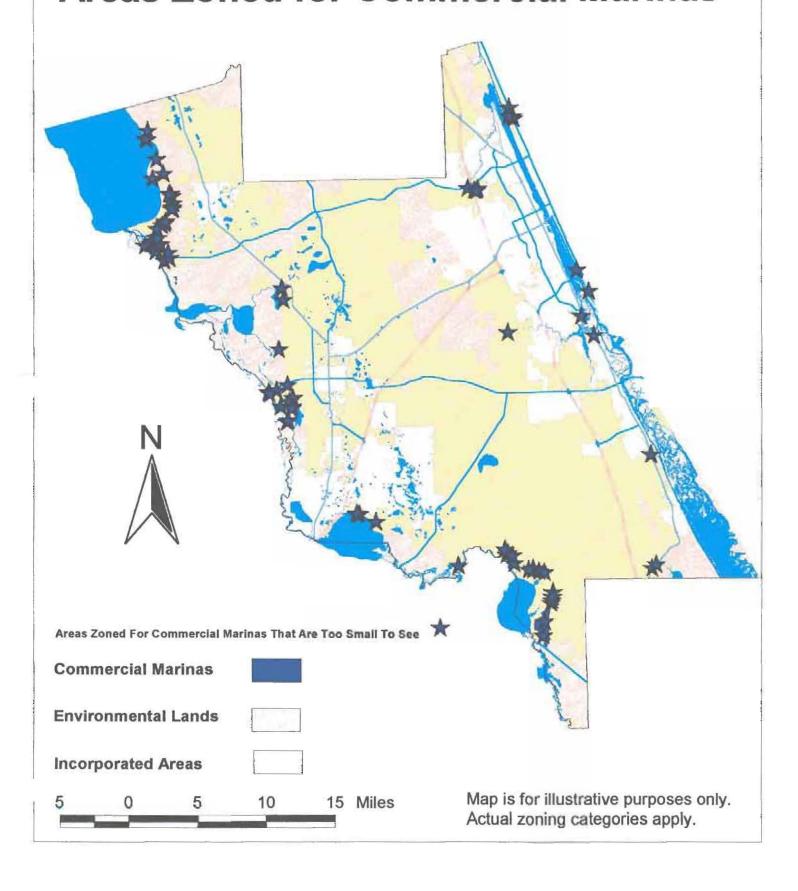
I Industrial

M Mixed Use This classification is to provide for integrated developments, which are consistent with the comprehensive plan, so as to promote a mixture of housing costs and types of economical and orderly development consisting of a single or a mixture of compatible land uses. Further, it is intended that a proposed development be sensitive to existing adjacent and future land uses as depicted by the future land use map of the comprehensive plan, the natural environment and the impact upon supporting public infrastructure through such mechanisms as, but not limited to, the establishment of appropriate buffer areas between land uses, limitations upon the types of permissible uses and structures which are to be permitted in the development.

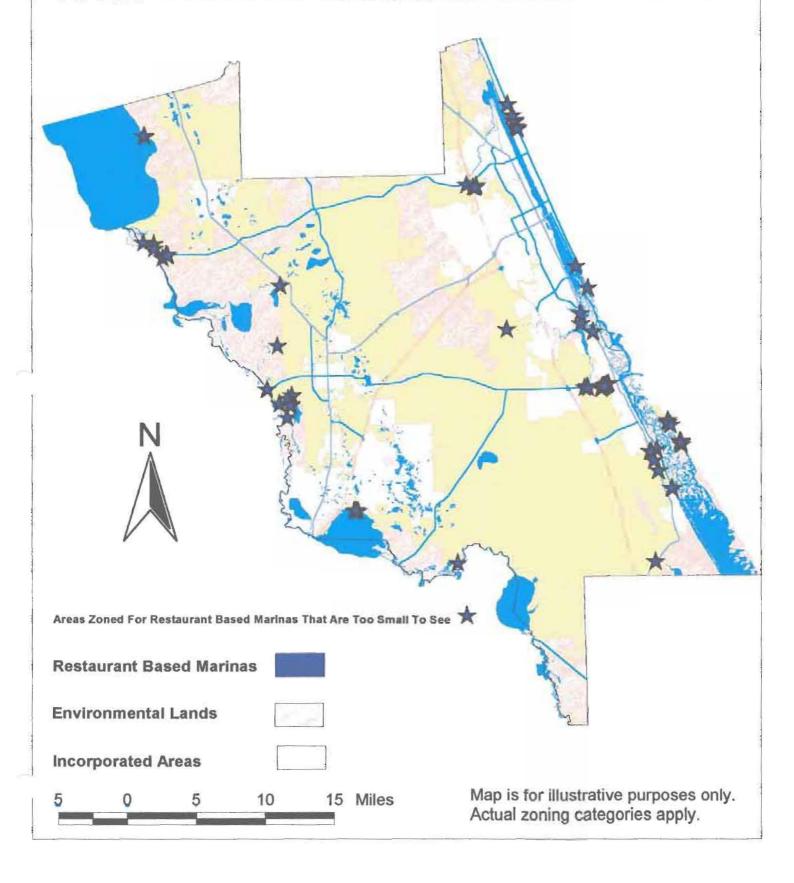
The PUD Planned Unit Development Classification has been divided into four sub classifications. These subclassifications are Residential, Business, Industrial and Mixed Use. Uses in each PUD must be listed in the Development Agreement and approved by the County Council.

(RPUD minimum parcel size - 5 acres)
(BPUD minimum parcel size - 20,000 sq. ft.)
(I or M minimum parcel size - 1 acre)

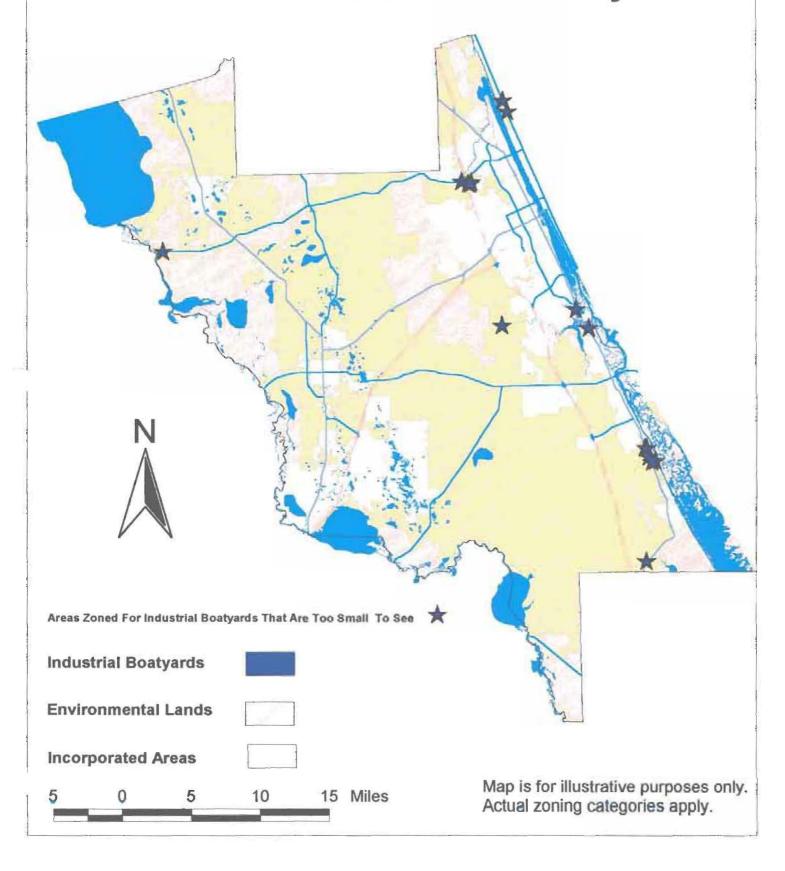
Unincorporated Volusia County Areas Zoned for Commercial Marinas



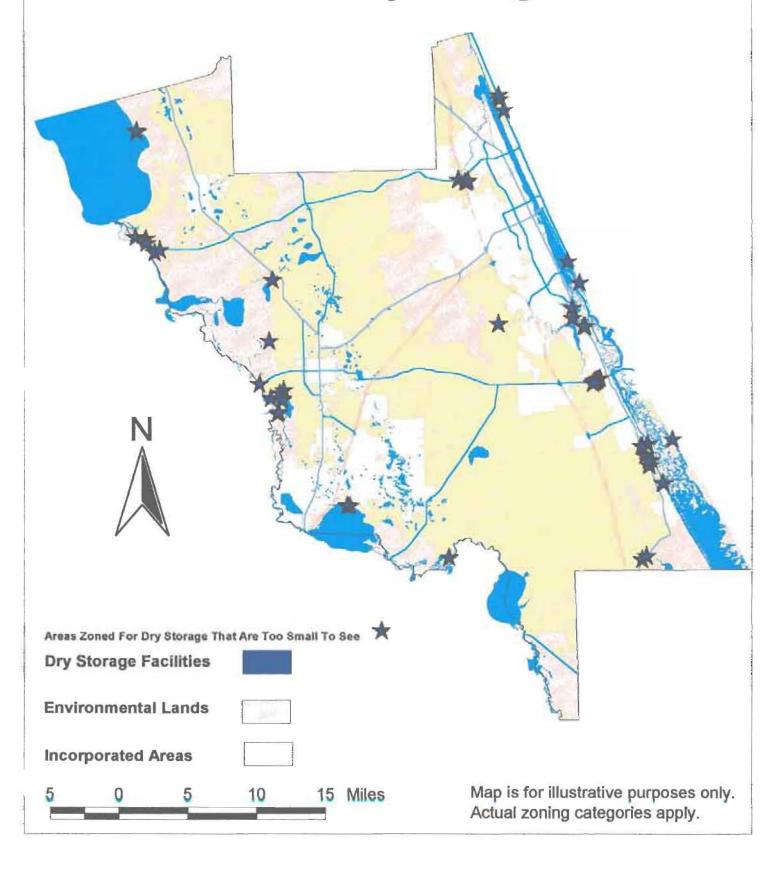
Unincorporated Volusia County Areas Zoned for Restaurant Based Marinas



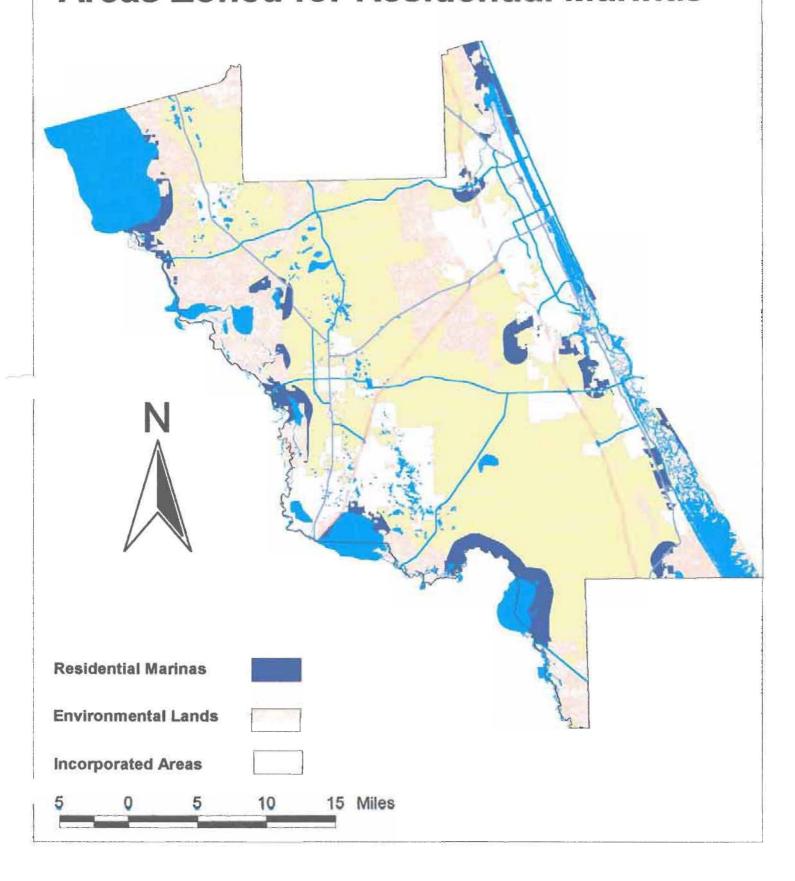
Unincorporated Volusia County Areas Zoned for Industrial Boatyards



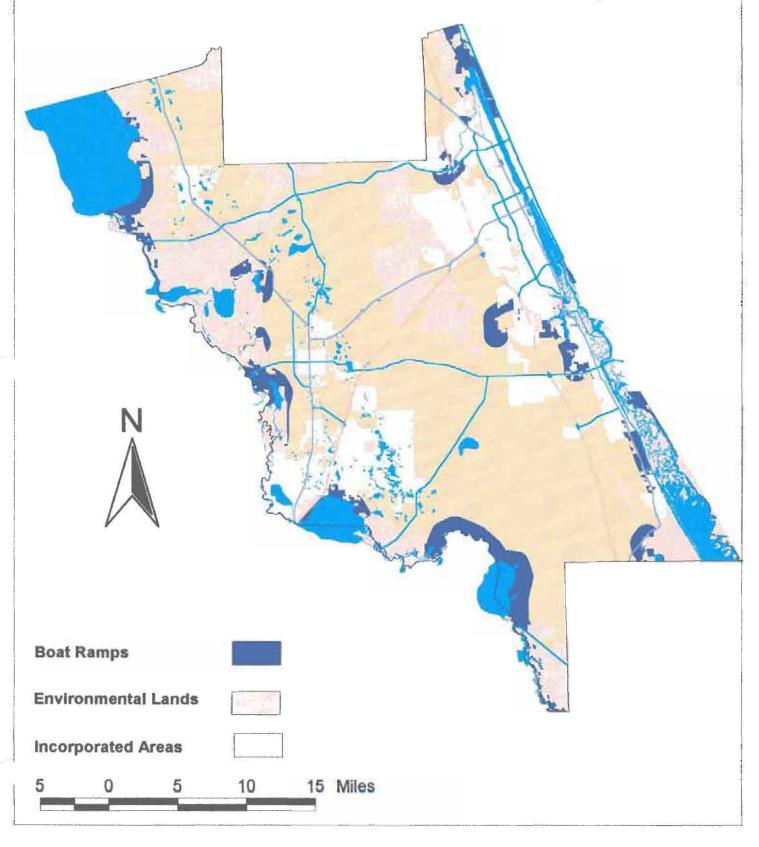
Unincorporated Volusia County Areas Zoned for Dry Storage Facilities



Unincorporated Volusia County Areas Zoned for Residential Marinas



Unincorporated Volusia County Areas Zoned for Boat Ramps



Attachment R: Volusia County Project Application Process and Flow Chart

PROJECT APPLICATION PROCESS

This process describes the Flow Chart on the adjoining page. It is incumbent upon the applicant to follow appropriate county or city building requirements, procedures, and guidelines.

STEP 1

The applicant submits permit applications to the appropriate state and/or federal regulatory agencies. The regulatory agencies then forward these applications to the appropriate wildlife agencies for consultation on wildlife species and their habitats. The Florida Fish and Wildlife Conservation Commission (FWC) and the U.S. Fish and Wildlife Service (USFWS) provide comments on manatee impacts as a component of the environmental permitting process.

When the FWC or the USFWS receives an application for review, a letter of compliance from Volusia County Environmental Management (VCEM) will be requested from the applicant.

STEP 2

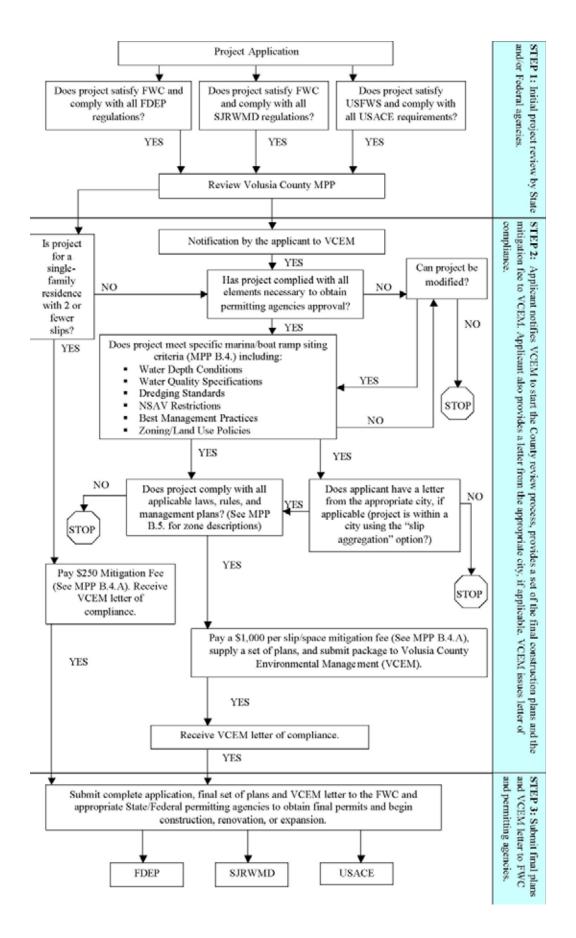
It is the applicant's responsibility to initiate contact with the county in order to start the county MPP review process. A set of construction plans (i.e. footprint, elevations and schematics), appropriate mitigation fees, and any other required city or regulatory agency documentation must be provided to VCEM by the applicant.

If a letter from a city is required (slip aggregation option) then this letter must also be provided to the county by the applicant. VCEM will then review the final set of construction plans and other documentation for compliance with the MPP requirements.

When VCEM determines that the project satisfies the MPP requirements, Volusia County will issue a letter of compliance to the applicant. It is the applicant's responsibility to then provide the letter of compliance to the appropriate state and/or federal wildlife agencies.

STEP 3

Following the evaluation of the application and any requests for additional information on the project, the FWC or USFWS may then issue their biological opinions.



Attachment S: Urban Supplement (City Specific Provisions)

Not Available