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April 3, 2000

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VIA HAND DELIVERY

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Blanca S. Bayo
Director, Division of Records & Reporting
Florida Public Service Commission
Capital Circle Office Center
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Ten Year Site Plan Filing

Dear Ms. Bayo:

Enclosed for filing are twenty-five copies of Duke Energy New Smyrna Beach Power Company, Ltd., L.L.P.'s Ten-Year Power Plant Site Plan for 2000-2009. A copy of the Ten-Year Site Plan is also enclosed on diskette.

For our records, please acknowledge your receipt of this filing on the enclosed copy of this letter. Thank you for your consideration.

Sincerely,

HOLLAND & KNIGHT LLP

K. D. W

Karen D. Walker

KDW:kjg
Enclosure

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Duke Energy New Smyrna Beach Power Company, Ltd., L.L.P.

Ten Year Site Plan 2000-2009

Submitted to:
Public Service Commission
April 2000

Duke Energy

Duke Energy New Smyrna Beach Power Company, Ltd., L.L.P.

Table of Contents

List of Required Schedules

Chapter 1
Description of Existing Facilities

1.1. Electric Power Generating Facilities

Duke Energy New Smyrna Beach Power Company Ltd., L.L.P. ("DENSB") is an electric utility under Section 366.02(2), Florida Statutes, regulated by the Florida Public Service Commission ("FPSC"), and a public utility regulated by the Federal Energy Regulatory Commission ("FERC") pursuant to the Federal Power Act. DENSB is also an Exempt Wholesale Generator ("EWG") under the Public Utility Holding Company Act of 1935 ("PUHCA"). See Duke Energy New Smyrna Beach Power Company Ltd., L.L.P., 83 FERC § 62,220.

As indicated in ***Schedule 1***, DENSB does not currently have any existing electric power generating facilities in Florida. However, DENSB and the Utilities Commission City of New Smyrna Beach ("UCCNSB") have obtained a determination of need from the FPSC for the construction of the Duke Energy New Smyrna Beach Power Station ("the DESNB Project" or the "Project"). See, In re: Joint petition for determination of need for an electrical power plant in Volusia County by the Utilities Commission, City New Smyrna Beach, Florida and Duke Energy New Smyrna Beach Power Company Ltd., L.L.P., 99 F.P.S.C. 3:401, Docket No 981042-EM, Order No. PSC-99-0535-FOF-EM (March 22, 1999).

The DENSB Project is a proposed 514 megawatt ("MW") natural gas-fired, combined cycle power plant together with a natural gas lateral pipeline and associated transmission facilities that will be located in Volusia County, Florida. The Project will consist of two F series (General Electric Frame 7FA or equivalent) combustion turbine generators, two heat recovery steam generators ("HRSG"), and one steam turbine generator. The Project will use cooling towers to dissipate excess heat. The Project's direct construction cost is estimated to be approximately $160 million, which DENSB expects to finance with internal funds, reflecting a cost of approximately $311 per kW of installed capacity.

By order entered on June 25, 1998, FERC approved DENSB's Rate Schedule No.1, which permits DENSB to enter into negotiated wholesale power sales agreements with willing purchasers. See Duke Energy New Smyrna Beach Power Company Ltd., L.L.P., 83 FERC § 61,316. DENSB will sell power on a wholesale basis to UCCNSB, which has an entitlement of up to 30 MW of the Project's capacity and energy associated with that capacity. UCCNSB will use the capacity and energy to serve its retail customers. DENSB will market the balance of the capacity and energy (approximately 484 MW) on the wholesale power market.

1.2. Transmission Facilities

The DENSB Project will be electrically interconnected to the Peninsular Florida transmission grid at the UCCNSB Smyrna Substation, providing connections to both the Florida Power & Light Company ("FPL") and Florida Power Corporation ("FPC") transmission systems. To facilitate and support power deliveries from the Project to other Peninsular Florida utilities, a second circuit is planned for the 18-mile 115 kV Smyrna-Cassadaga transmission line and a new 7.5-mile 115 kV circuit is planned to connect the Cassadaga Substation to the Lake Helen Substation. ***Figure 1*** displays the current transmission system surrounding the Smyrna Substation.

1.3. Electric Utility's Service Territory

DENSB does not provide electric service to a specified service territory as an EWG. Therefore, a map showing DENSB's service area is not provided in this Ten-Year Site Plan.

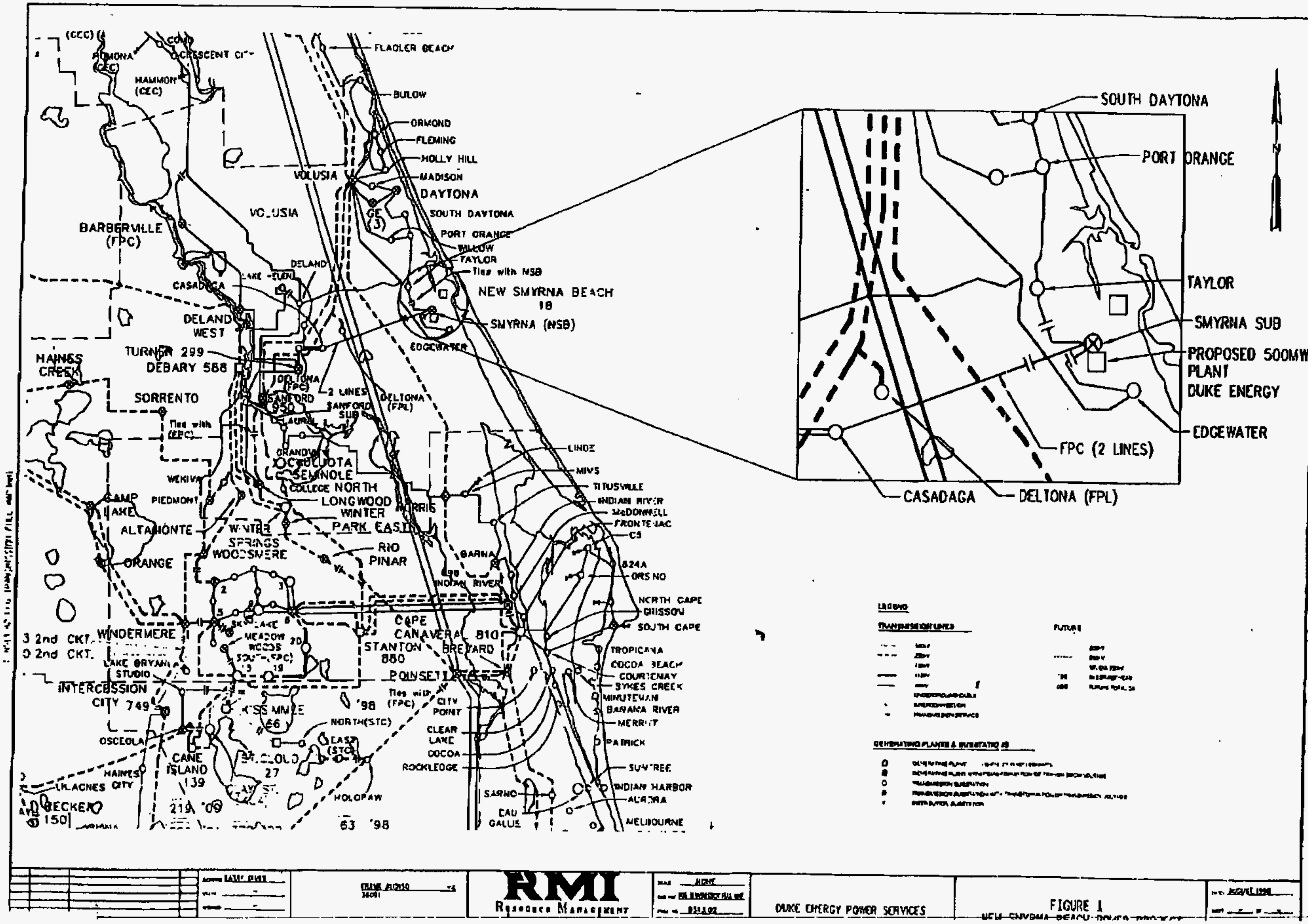


Figure 1 – Transmission System

Schedule 1
Existing Generating Facilities
As of December 31, 1999

(1) Plant Name	(2) Unit No.	(3) Location	(4) Unit Type	(5) Fuel Pri	(6) Fuel Alt	(7) Fuel Transport Pri	(8) Fuel Transport Alt	(9) Alt. Fuel Days Use	(10) Commercial In-Service Month/Year	(11) Expected Retirement Month/Year	(12) Gen. Max. Nameplate Kw	(13) Net Capability Summer MW	(14) Net Capability Winter MW
THIS SCHEDULE IS NOT APPLICABLE TO DENSB													

Chapter 2
Forecast of Electric Power Demand and Energy Consumption

Because DENSB does not serve *retail* customers directly, but sells power on a wholesale basis to other retail-serving utilities and power marketers, ***Schedules 2.1 and 2.2***, which require data for retail sales, are not applicable to DENSB. ***Schedule 2.3*** details DENSB's forecast for wholesale customers and sales for resale from June 2002 through December 2009.

Schedules 3.1, 3.2 and 3.3 present forecasted summer peak demand, winter peak demand and net energy for load for DENSB. Because of the Project's high efficiency and the low marginal cost of production, DENSB anticipates that the Project's sales during the summer and winter peaks will be at the Project's full rated output (476 MW at summer peak and 548 MW at winter peak). As a wholesale electric utility, DENSB is not in a position to, and does not directly engage in, residential or commercial/industrial Demand Side Management ("DSM") programs. Thus, ***Schedules 3.1***, ***3.2***, and ***3.3*** do not include DSM data. ***Schedule 4*** is not applicable to DENSB because the schedule calls for retail sales and peak demand data.

The DENSB Project will be designed to utilize natural gas as its sole source of fuel supply. Natural gas represents the cleanest burning fuel of fossil fuels and is the new fuel source of choice for generation projects. ***Schedule 5*** depicts the volumetric base case forecast for fuel consumption by the DENSB Project. ***Schedules 6.1 and 6.2*** detail the forecast of net energy available by fuel type in Peninsular Florida over the Ten-Year Site Plan period.

Schedule 2.1
History and Forecast of Energy Consumption and Number of Customers by Customer Class

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				Rural and Residential			Commercial	
Year	Population	Members per Household	GWH	Average No. of Customers	Average KWH Consumption Per Customer	GWH	Average No. of Customers	Average KWH Consumption Per Customer
1990								
1991								
1992								
1993								
1994								
1995								
1996		THIS SCHEDULE IS NOT						
1997		APPLICABLE TO DENSB						
1998								
1999								
2000								
2001								
2002								
2003								
2004								
2005								
2006								
2007								
2008								
2009								

Schedule 2.2
History and Forecast of Energy Consumption and Number of Customers by Customer Class

(1) Year	(2) GWH	(3) Industrial Average No. of Customers	(4) Average KWH Consumption Per Customer	(5) Railroads and Railway GWH	(6) Street & Highway Lighting GWH	(7) Other Sales to Public Authorities GWH	(8) Total Sales to Ultimate Consumers GWH
1990							
1991							
1992							
1993							
1994							
1995	THIS SCHEDULE IS NOT APPLICABLE TO DENSB						
1996							
1997							
1998							
1999							
2000							
2001							
2002							
2003							
2004							
2005							
2006							
2007							
2008							
2009							

Schedule 2.3
History and Forecast of Energy Consumption and Number of Customers by Customer Class

(1) Year	(2) Sales for Resale GWH	(3) Utility Use & Losses GWH	(4) Net Energy for Load GWH	(5) Wholesale Customers (Average No.)	(6) Total No. of Customers
1990					
1991					
1992					
1993					
1994					
1995					
1996					
1997					
1998					
1999					
2000	0		0	0	0
2001	0		0	0	0
2002	1697		1697	N/A	N/A
2003	3074		3074	N/A	N/A
2004	3160		3160	N/A	N/A
2005	3237		3237	N/A	N/A
2006	3234		3234	N/A	N/A
2007	3295		3295	N/A	N/A
2008	3351		3351	N/A	N/A
2009	3407		3407	N/A	N/A

Schedule 3.1
History and Forecast of Summer Peak Demand
Base Case

(1) Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Residential Load Management	(7) Residential Conservation	(8) Comm./Ind. Load Management	(9) Comm./Ind. Per Customer	(10) Net Firm Demand
1990									
1991									
1992									
1993									
1994									
1995									
1996									
1997									
1998									
1999									
2000	0	0							0
2001	0	0							0
2002	0	0							0
2003	476	476							476
2004	476	476							476
2005	476	476							476
2006	476	476							476
2007	476	476							476
2008	476	476							476
2009	476	476							476

Schedule 3.2
History and Forecast of Winter Peak Demand
Base Case

(1) Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Residential Load Management	(7) Residential Conservation	(8) Comm./Ind. Load Management	(9) Comm./Ind. Per Customer	(10) Net Firm Demand
1990									
1991									
1992									
1993									
1994									
1995									
1996									
1997									
1998									
1999									
2000	0	0							0
2001	0	0							0
2002	0	0							0
2003	548	548							548
2004	548	548							548
2005	548	548							548
2006	548	548							548
2007	548	548							548
2008	548	548							548
2009	548	548							548

Schedule 3.3
History and Forecast of Annual Net Energy for Load - GWH
Base Case

(1) Year	(2) Total	(3) Residential Conservation	(4) Comm./Ind. Conservation	(5) Retail	(6) Residential Load Wholesale	(7) Utility Use & Losses	(8) Net Energy for Load	(9) Load* Factor (%)
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999								
2000	0				0	N/A	0	0
2001	0				0	N/A	0	0
2002	1697				1697	N/A	1697	0
2003	3074				3074	N/A	3074	70%
2004	3160				3160	N/A	3160	74%
2005	3237				3237	N/A	3237	76%
2006	3234				3234	N/A	3234	78%
2007	3295				3295	N/A	3295	79%
2008	3351				3351	N/A	3351	80%
2009	3407				3407	N/A	3407	82%

Schedule 4
Previous Year and 2-Year Forecast of Retail Peak Demand and Net Energy for Load by Month

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Actual 1999		Forecast 2000		Forecast 2001	
Month	Peak Demand MW	NEL GWH	Peak Demand MW	NEL GWH	Load Wholesale	Utility Use & Losses
January						
February						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						

THIS SCHEDULE IS NOT APPLICABLE TO DENSB

Schedule 5
Fuel Requirements

(1)	(2)	(3)	(4)	(5) Actual	(6) Actual	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Fuel Requirements		Units	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
(1)	Nuclear		Trillion BTU												
(2)	Coal		1000 Ton												
(3)	Residual	Total	1000 BBL												
(4)		Steam	1000 BBL												
(5)		CC	1000 BBL												
(6)		CT	1000 BBL												
(7)		Diesel	1000 BBL												
(8)	Distallate	Total	1000 BBL												
(9)		Steam	1000 BBL												
(10)		CC	1000 BBL												
(11)		CT	1000 BBL												
(12)		Diesel	1000 BBL												
(13)	Natural Gas	Total	1000 MCF	N/A	N/A	N/A	N/A	11591	21000	21592	22118	22094	22511	22895	23274
(14)		Steam	1000 MCF												
(15)		CC	1000 MCF	N/A	N/A	N/A	N/A	11591	21000	21592	22118	22094	22511	22895	23274
(16)		CT	1000 MCF												
(17)	Other (Specify)		Trillion BTU												

Schedule 6.1
Energy Sources

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				Actual	Actual										
	Energy Sources		Units	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
(1)	Actual Firm Interchange		GWH												
(2)	Nuclear		GWH												
(3)	Coal		GWH												
(4)	Residual	Total	GWH												
(5)		Steam	GWH												
(6)		CC	GWH												
(7)		CT	GWH												
(8)		Diesel	GWH												
(9)	Distallate	Total	GWH												
(10)		Steam	GWH												
(11)		CC	GWH												
(12)		CT	GWH												
(13)		Diesel	GWH												
(14)	Natural Gas	Total	GWH	N/A	N/A	N/A	N/A	1697	3074	3160	3237	3234	3295	3351	3407
(15)		Steam	GWH												
(16)		CC	GWH	N/A	N/A	N/A	N/A	1697	3074	3160	3237	3234	3295	3351	3407
(17)		CT	GWH												
(18)	Other (Specify)		GWH												
(19)	Net Energy for Load		GWH	N/A	N/A	N/A	N/A	3394	6148	6320	6474	6468	6590	6702	6814

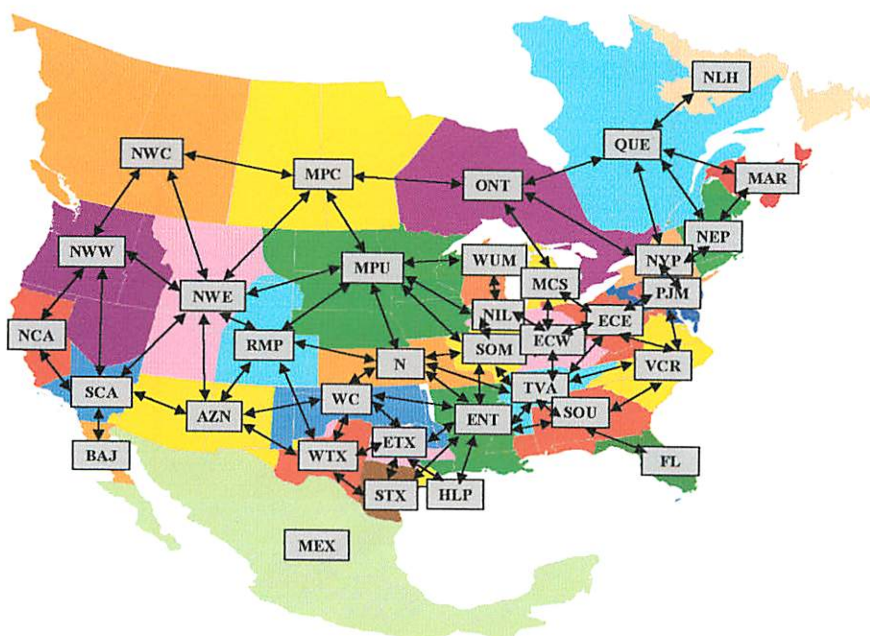
Schedule 6.2
Energy Sources

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	En ergy Sources		Units	Actual 1998	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
(1)	Actual Firm Interchange		%												
(2)	Nuclear		%												
(3)	Residual	Total	%												
(4)		Steam	%												
(5)		CC	%												
(6)		CT	%												
(7)		Diesel	%												
(8)	Distallate	Total	%												
(9)		Steam	%												
(10)		CC	%												
(11)		CT	%												
(12)		Diesel	%												
(13)	Natural Gas	Total	%	N/A	N/A	N/A	N/A	100%	100%	100%	100%	100%	100%	100%	100%
(14)		Steam	%												
(15)		CC	%	N/A	N/A	N/A	N/A	100%	100%	100%	100%	100%	100%	100%	100%
(16)		CT	%												
(17)	Other (Specify)		%												
(18)	Net Energy for Load		%	N/A	N/A	N/A	N/A	100%	100%	100%	100%	100%	100%	100%	100%

Chapter 3
Forecasting Methods and Procedures

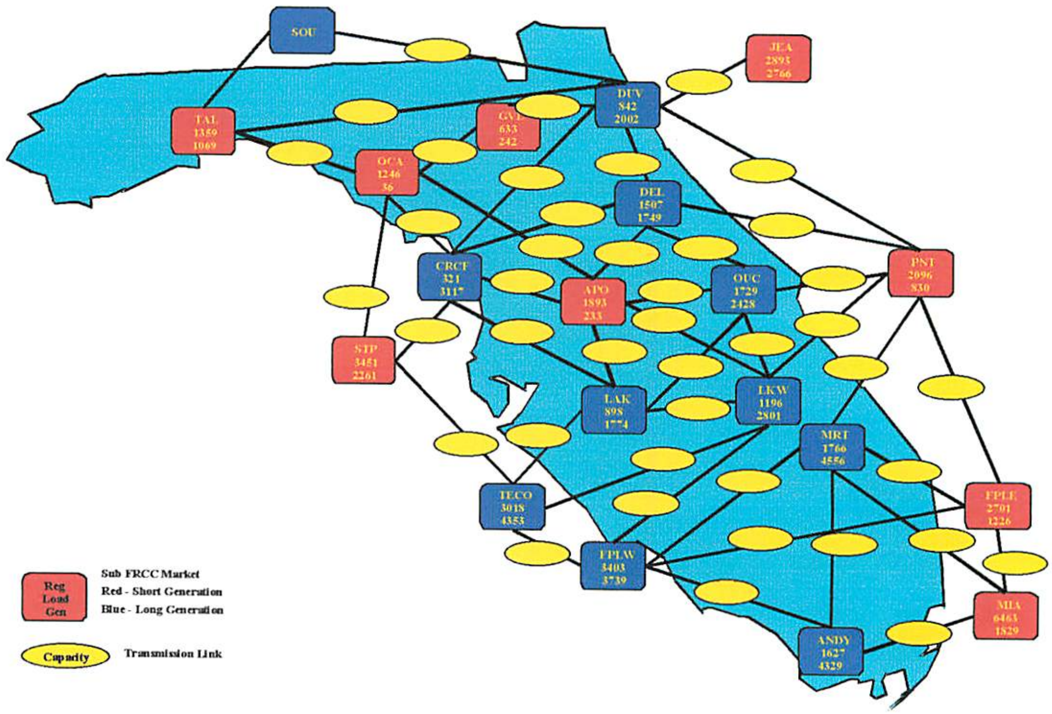
Forecasts of the Project's operations were prepared using the Altos North American Regional Electricity Model ("NARE Model") and the Altos North American Regional Gas Model ("NARG Model") developed by Altos Management Partners, Inc., an economic and management consulting firm headquartered in San Jose, California. The NARE Model is a 40-region integrated model of the North American electricity system that includes generation, transmission, consumption, fuels and fuel competition. The NARE Model includes all of the generation regions, all of the existing and prospective transmission interconnections, and all of the demand regions of North America aggregated and dis-aggregated as in ***Figure 2*** below. Generally, speaking, the NARE Model includes all of the reliability coordinating regions in the U.S., Canada, and Mexico, plus numerous sub-regions. For example, the model treats the Southern Electric Reliability Council region ("SERC") as four separate sub-regions: the Southern Company system, TVA, VCR (Virginia and the Carolinas), and Entergy, which was formerly designated as the southeastern component of the Southwestern Power Pool.

Figure 2: Altos North American Electric Model



The NARE Model includes a nodal pricing model of the Florida Reliability Coordinating Council ("FRCC"). Wholesale market clearing prices of electricity are and will be different at different geographic locations in Florida and throughout North America. The nodal pricing model that Altos developed for FRCC and integrated into the NARE Model takes account locational differences within FRCC and in fact throughout North America at the level of geographic detail shown in ***Figure 3*** herein.

Figure 3 - FRCC



The NARE Model includes transmission system integration and interconnection, consideration of multiple fuels and energy products, existing capacity and its cost structure, future changes in the cost structure of existing plants, retirements and decommissioning, new generation plant entry, inbound and outbound transmission capabilities, transmission entry, and demands and load shapes that vary over time within each region. In evaluating future capacity energy needs, the NARE Model considers the following generating technologies: gas/oil combustion turbine, gas combined cycle, oil combined cycle, pulverized coal, coal gasification combined cycle, nuclear, gas/oil steam, and waste-to-energy.

The NARG Model includes all gas supply basins, all existing and prospective interconnecting pipelines, and all of the gas demand regions of North America. In the NARG Model, a detailed supply sub-model characterizes each category of resource in each supply region, and a detailed demand sub-model characterizes each pipeline. The NARG Model estimates, over time, the set of regional prices that simultaneously clear the markets in every wellhead, wholesale, and other market in North America.

DENSB did not run sensitivity cases based on alternative assumptions such as variations in fuel costs, loads, new generation units or economic activity to determine their potential impact on the Project's operations. However, because of the DENSB Project's high efficiency and relatively low-cost position in the overall generation supply stack for Peninsular Florida, DENSB believes that the Project's sales at the times of summer and winter peaks (both the system peak experienced by DENSB and the Peninsular Florida coincident system peak) will be at the Project's full rated output, i.e., 476 MW at the time of the summer peak and 548 MW at the time of the winter peak. The Altos models confirm this. Accordingly, DENSB does not believe that such sensitivity analyses are necessary or warranted for the Project.

The evaluation used for DENSB's 1999 Ten-Year Site Plan was made using an Altos model tradenamed GEMS. The original GEMS model that was the subject of that evaluation represented the FRCC as a single, aggregate region. The NARE model that is the subject of this evaluation is based on the same analytical technique and the same data, but it gives a more regionally dis-aggregated representation of the FRCC than the previous model.

DENSB's long-term planning approach is to construct the Project and to operate it as efficiently as possible, in order to be a long-term participant in the Peninsular Florida wholesale bulk power market. DENSB generally assumes that other Peninsular

Florida utilities will construct and acquire generation and transmission resources in accordance with their stated plans. The analyses developed using the NARE Model and the NARG Model are based on appropriate assumptions regarding existing and future fuel costs, new generating capacity costs, and projected additions and retirements from the generation and transmission systems. Specifically, the Altos analyses assume that the capacity in place as of the end of 1998 is that represented in the Energy Information Administration publication on plants in place in the United States, both utility and non-utility owned plants. The Altos analyses thereafter assume that the capacity addition schedule implemented in FRCC is that articulated and enumerated in the FRCC Ten-Year Plan dated approximately July 1999. Through such assumptions, the Altos models incorporate and represent the best available supply stack estimates for the subregional and aggregate supply stacks in the region.

The load assumptions for FRCC were determined by downloading the 8760 hourly reported loads from the FERC 714s for each FRCC reporting entity. The hour by hour load pattern gives the frequency distribution of load over a historical period. Altos then calibrated that frequency distribution over load to the aggregate energy loads projected in the FRCC Ten-Year Plan dated approximately July 1999. To wit, the forward loads have been calibrated to the historical FERC 714 reported Florida loads plus the projected ten year forward energy growth rates.

In light of the historical capacity plus the projected forward capacity, it is clear from the NARE Model analysis and the data upon which it is based that the FRCC Ten-Year Plan is inadequate in terms of the amount of capacity it adds to the robustly growing FRCC market. That is why the DENSB Project is projected to run at such a high capacity factor during its entire forward life. DENSB plans to operate the Project reliably and cost-effectively and to make mutually cost-effective sales to other Peninsular Florida utilities. That should be very easy indeed in light of the chronic shortage of indigenous capacity in the FRCC relative to the growing load.

Chapter 4
Forecast of Facilities Requirement

Schedules 7.1 and ***7.2***. list the ten-year projections of summer and winter peak demand for the DENSB Project. Higher ambient temperatures in the summer account for the lower capacity numbers during the summer months. Because all output from the DENSB Project will be sold on the wholesale market either directly or through a power marketer to retail-serving investor-owned utilities, municipals and cooperative utilities, reserve margin requirements were not incorporated into the schedules. This is not to say the DENSB Project does not add to overall FRCC system reliability.

Schedule 8 details the specific unit information of the DENSB Project and the associated timelines during the reported ten-year period. As previously discussed, DENSB and UCCNSB have obtained a determination of need for the Project from the FPSC. The FPSC's order granting the determination of need has been appealed to the Florida Supreme Court. Subject to the Florida Supreme Court affirming the FPSC's order granting the determination of need to DENSB and UCCNSB, and DENSB and UCCNSB receiving site certification approval from the Governor and the Cabinet sitting as the Siting Board, the DENSB Project is anticipated to commence construction activities in January 2001 for a June 2002 commercial operation date. Status report and project specifications for the DENSB Project are provided in ***Schedule 9***.

As previously noted, the DENSB Project will be electrically interconnected to the Peninsular Florida transmission system at the UCCNSB Smyrna Substation. A second circuit is planned for the 18-mile 115 kV Smyrna-Cassadaga transmission line and a new 7.5-mile 115 kV circuit is also planned to connect the Cassadaga Substation to the Lake Helen Substation. A status report and specification information on the transmission lines for the Project is contained in ***Schedule 10***.

Schedule 7.1
Forecast of Capacity, Demand, and Scheduled Maintenance at Time of Summmer Peak

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Total Installed Capacity	Firm Capacity Import	Firm Capacity Export	QF	Total Capacity Available	System Firm Summer Peak Demand	Reserve Margin Before Maintenance		Scheduled Maintenance	Reserve Margin After Maintenance	
Year	MW	MW	MW	MW	MW	MW	MW	%	MW	MW	%
2000	0	0	0	0	0	0	N/A	N/A	0	N/A	N/A
2001	0	0	0	0	0	0	N/A	N/A	0	N/A	N/A
2002	476	0	0	0	476	476	N/A	N/A	0	N/A	N/A
2003	476	0	0	0	476	476	N/A	N/A	0	N/A	N/A
2004	476	0	0	0	476	476	N/A	N/A	0	N/A	N/A
2005	476	0	0	0	476	476	N/A	N/A	0	N/A	N/A
2006	476	0	0	0	476	476	N/A	N/A	0	N/A	N/A
2007	476	0	0	0	476	476	N/A	N/A	0	N/A	N/A
2008	476	0	0	0	476	476	N/A	N/A	0	N/A	N/A
2009	476	0	0	0	476	476	N/A	N/A	0	N/A	N/A

Schedule 7.2
Forecast of Capacity, Demands, and Scheduled Maintenance at Time of Winter Peak

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Total Installed Capacity	Firm Capacity Import	Firm Capacity Export	QF	Total Capacity Available	System Firm Summer Peak Demand	Reserve Margin Before Maintenance		Scheduled Maintenance	Reserve Margin After Maintenance	
Year	MW	MW	MW	MW	MW	MW	MW	%	MW	MW	%
2000	0	0	0	0	0	0	N/A	N/A	0	N/A	N/A
2001	0	0	0	0	0	0	N/A	N/A	0	N/A	N/A
2002	0	0	0	0	0	0	N/A	N/A	0	N/A	N/A
2003	548	0	0	0	548	548	N/A	N/A	0	N/A	N/A
2004	548	0	0	0	548	548	N/A	N/A	0	N/A	N/A
2005	548	0	0	0	548	548	N/A	N/A	0	N/A	N/A
2006	548	0	0	0	548	548	N/A	N/A	0	N/A	N/A
2007	548	0	0	0	548	548	N/A	N/A	0	N/A	N/A
2008	548	0	0	0	548	548	N/A	N/A	0	N/A	N/A
2009	548	0	0	0	548	548	N/A	N/A	0	N/A	N/A

Schedule 8
Planned and Prospective Generating Facility Additions and Changes

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
				Fuel		Fuel Transport		Const	Commercial	Expected	Gen. Max.	Net Capability		
Plant Name	Unit No.	Location	Unit Type	Pri	Alt	Pri	Alt	Start Mo./Yr.	In-Service Month/Year	Retirement Month/Year	Nameplate Kw	Summer MW	Winter MW	Status
DENSB	1	Volusia County	CC	NG	None	PL	None	Jan/2001	June/2002	Unk	548,000	476	548	PM

CC = Combined Cycle
NG = Natural Gas
PL = Pipeline
UNK = Unknown
PM = In Permitting Process

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

Plant Name and Unit Number:	**Duke Energy New Smyrna Beach Station, Unit No. 1**
Expected Plant Capacity:	
a. Nominal Rating	500 MW
b. Annual Average (71°F, 78% RH)	496 MW
c. Summer (84°F, 80% RH)	476 MW
d. Winter (15°F, 78% RH)	548 MW
e. ISO Temperatures and Humidity (59°F, 60% RH)	514 MW
Project Energy Production:	Approximately 3,000,000 MWH/year
Technology Type:	Two General Electric Combustion Turbines, Two Heat Recovery Steam Generators, and One Steam Turbine Generator in Combined Cycle Configuration.
Anticipated Construction Schedule:	
a. Project release date	December 2000
b. Construction mobilization date	January 2001
c. Commercial in-service date	June 2002
Fuel Type:	
a. Primary Fuel	Natural Gas
b. Alternate Fuel	None
Fuel Use:	Approximately 85 Million standard Cubic Feet of Natural Gas/day, annual average (71°F, 78% RH), full load.
Air Pollution Control Strategy:	Dry Low NOx Combustors
Cooling Method:	Cooling Tower
Total Site Area:	30.5-acres (approximate)
Construction Status:	Planned

Schedule 9

Status Report and Specifications of Proposed Generating Facilities (Continued)

Certification Status:	Need Determination granted and currently pending on appeal to the Florida Supreme Court; Site Certification Application filed October 1998; Land Use Recommended Order issued; Site Certification hearing completed; Site Certification expected to be addressed by the Siting Board shortly after the Florida Supreme Court issues its decision on the appeal of the FPSC's Need Determination Order.
Status with Federal Agencies:	EWG Status certified by FERC Market-based rates approved by FERC
Projected Unit Performance Data:	
Planned Outage Factor (POF)	3%
Forced Outage Factor (FOF)	1%
Equivalent Availability Factor (EAF)	96%
Resulting Capacity Factor (%)	74-82% (first 10 years)
Average Net Operating Heat Rate (ANHOR)	6,832 Btu/k/wh (HHV) (59°F, 60% RH expected)
Projected Unit Financial Data (per Duke Energy)	
Book Life (years)	30 years
Direct Construction Cost (Annual)	$160 million
AFUDC Amount	not applicable
Escalation ($/kW)	not applicable
Fixed O&M ($/kW per year)	not applicable
Variable O&M ($/MWH	not applicable
K-Factor	not applicable
Project Life	30 years

SCHEDULE 10

STATUS REPORT AND SPECIFICATIONS OF PROPOSED DIRECTLY ASSOCIATED TRANSMISSION LINES

(1)	Point of Origin and Termination:	Smyrna-Cassadaga	Cassadaga-Lake Helen
(2)	Number of Lines:	3	3
(3)	Right-of-Way:	Existing transmission corridor	3.5-miles existing corridors 4.0-miles new corridor
(4)	Line Length:	18-miles	7.5-miles
(5)	Voltage:	115kV	115kV
(6)	Anticipated Construction Timing:	Completed by 01/2002	Completed by 01/2002
(7)	Anticipated Capital Investment:	$ 6.7 Million*	*
(8)	Substations:	Smyrna upgrade	-
(9)	Participation with Other Utilities:	UCCNSB	UCCNSB
(10)	Status:	Planned	Planned

*** Includes total estimated capital cost for both the Smyrna-Cassadaga and Cassadaga-Lake Helen lines, and for the planned Smyrna Substation upgrades.**

Chapter 5
Other Planning Assumptions and Information

In addition to the information previously provided in this submittal, the following addresses the twelve discussion items identified by the FPSC relative to an electric utility's planning assumptions and sensitivities.

Discussion Item # 1: Describe how any transmission constraints were modeled and explain the impacts on the plan. Discuss any plans for alleviating any transmission constraints.

To facilitate and support power deliveries from the DENSB Project to other Peninsular Florida utilities located south of the Project, a second circuit will be added to the 18-mile 115 kV Smyrna-Cassadaga transmission line. In addition, a new 7.5-mile 115 kV circuit is also planned to connect the Cassadaga Substation to the Lake Helen Substation.

DENSB and UCCNSB commissioned transmission power flow studies that simulated the power flows that would result from sales from the Project to other key utilities in Peninsular Florida after construction of the additional circuits. These power flow studies utilized standard transmission modeling techniques and assumptions. Basically, these power flow studies compared the simulated operations of the Peninsular Florida transmission system without the DENSB Project in operation and with the Project operating and delivering power to FPL, FPC, Tampa Electric Company ("TECO"), Jacksonville Electric Authority ("JEA") and Seminole Electric Cooperative, Inc. ("Seminole"). These studies confirmed that after the construction of the additional circuits, the Florida transmission system will accommodate delivery of power from the Project to FPL, FPC, TECO, JEA or Seminole without causing any adverse effects on the transmission system under normal operating conditions (i.e., no significant transmission line or generator outages).

The NARE Model contains a detailed model of transmission infrastructure including costs, losses, and constraints throughout the FRCC. The transfer capabilities between and among the 19 Altos FRCC model areas are inferred from examination of the FERC 715 reports downloaded from the FERC website. The NARE Model assumes that the losses must be paid in a "pancaked" fashion across regions but that the nonfuel tariffs are zonal.

<u>Discussion Item # 2</u>: **Discuss the extent to which the overall economics of the plan were analyzed. Discuss how the plan is determined to be cost-effective. Discuss any changes in the generation expansion plan as a result of the sensitivity tests to the base case load forecast.**

As previously detailed in ***Chapter 3***, the overall economics of DENSB's plan were analyzed using the NARE and the NARG Models. These analyses indicate that the Project is the most cost-effective alternative available to UCCNSB for meeting its future power supply needs. The NARE Model explicitly and systematically compares every generation, transmission, fuel, and demand alternative against every other generation, transmission, fuel, and demand alternative individually and collectively and compares every alternative against every existing plant or other alternative as they affect the wholesale market in the FRCC.

The analyses further demonstrate that the Project is the most cost-effective alternative available to DENSB for meeting its obligations to deliver the entitlement capacity and energy to UCCNSB, as well as for meeting its other projected wholesale sales obligations. Moreover, based on its highly efficient heat rate and low direct construction cost, the Project is demonstrably cost-effective relative to virtually all other gas-fired combined cycle power plants proposed for Florida over the next ten years. Accordingly, the Project can and should be expected to provide cost-effective power to Peninsular Florida.

The NARE Model indicates that the capacity expansion plan embedded in the FRCC Ten-Year plan is low. This means that the DENSB Project is highly inframarginal in the FRCC supply stack and will run virtually every hour it is available except for the lowest baseload hours in the spring and fall shoulder months when demand is at its lowest annual level.

<u>Discussion Item # 3</u>: Explain and discuss the assumption used to derive the base case fuel price forecast. Explain the extent to which the utility tested the sensitivity of the base case plan to the high and low fuel price scenarios. If high and low fuel price sensitivities were performed, explain the changes made to the base case fuel price forecast to generate the sensitivities. If high and low fuel price scenarios were performed as part of the planning process, discuss the resulting changes, if any, in the generation expansion plan under the high and low fuel price scenario. If high and low fuel price sensitivities were not evaluated, describe how the base case plan is tested for sensitivity to varying fuel prices.

The base case gas price forecast is derived from a run of the NARG Model, short term version, made during February 2000. The NARG short term model has 36 forward monthly time periods, enumerates all the various supplies throughout the various producing basins of North America (e.g., Gulf of Mexico continental shelf, slope, onshore, etc., Anadarko, Permian, Western Canadian Sedimentary Basin), all the pipelines that connect the various producing basins through various intermediate junctions (e.g., Transco Station 65, Portland Tennessee, Leidy Pennsylvania, Ventura Iowa), to all the various end use regional wholesale markets of the country. The NARG short term model enumerates supplies and deliverabilities throughout the supply regions, dispatches all the prospective storage fields in the supply regions, dispatches all the interstate pipeline from all the supply regions to all the demand regions, distributes the gas to all the various customer segments, competes that gas against oil in the competitive end use sectors, dispatches market area storage, and finally consumes the gas in the various end use segments. The NARG Model calculates a market clearing price for gas at every regional location represented in the model for a 36 month forward period.

The forward oil product price projections were derived from Wall Street Journal forward oil and product prices. The forward coal price projections were estimated by Altos given its experience and knowledge of certain historical contract prices as well as its forecasts for the future. Nuclear fuel cycle costs were estimated and held constant in real, inflation adjusted terms.

Discussion Item # 4: Describe how the sensitivity of the plan was tested with respect to holding the differential between oil/gas and coal constant over the planning horizon.

DENSB did not did not conduct a sensitivity that compared holding the differential between oil/gas constant over the planning horizon.

Discussion Item # 5: Describe how generating unit performance was modeled in the planning process.

If during a given hour or block of hours the price differential between the output of the plant (namely electricity) and the input of the plant (namely the price of gas) exceeds the forward cost to market of the plant, the NARE Model assumes the plant will run. If the price differential across the plant is lower than the forward cost to market of the plant, the NARE Model assumes the plant will not run. Thus, the NARE Model assumes that the DENSB Project will "chase price" or more properly "chase prices differentials" in the market.

The forward cost to market of the DENSB Project is assumed to include all the fuel cost, all the consumables, and all the cycling cost (e.g., wear and tear cost), and all the preservation cost. At the price differentials across the plant calculated by the NARE Model, the DENSB Project is destined to run virtually every hour it is available. It is clearly a baseload plant, highly inframarginal in every hour of the year.

Discussion Item # 6: Describe and discuss the financial assumption used in the planning process. Discuss how the sensitivity of the plan was tested with respect to varying financial assumptions.

Funding for the DENSB Project will be provided through internal financing arrangements available through company affiliates. DENSB's affiliate, Duke Energy North America, LLC, intends to finance the Project through Duke Capital, thereby eliminating the need to issue debt or secure long-term power supply agreements. The DENSB Project will not impose any financial burden, now or in the future, on Florida ratepayers.

Operation of an existing merchant plant, such as DENSB, does not depend at all on financing considerations, capital cost, or cost of capital. Once the plant is built and operational, all financial considerations, all capital costs, and the cost of capital by its owners are strictly sunk. Once built, the plant dispatch decisions will be based on forward cost to market, i.e., on all nonsunk costs.

Discussion Item # 7: Describe in detail the electric utility's Integrated Resource Planning process. Discuss whether the optimization was based on revenue requirements, rates, or total resource cost.

The DENSB Project will sell bulk wholesale electricity into the wholesale electricity market. This market is primarily comprised of investor-owned utilities, municipals and cooperatives that need low-cost power to meet the needs of their respective retail customers during stable operating periods and under peak conditions. Because the Project will not serve *retail* customers directly, but sells power on a wholesale basis to retail-serving utilities and power marketers, DENSB did not utilize the Integrated Resource Planning process.

Discussion Item # 8: Define and discuss the electric utility's generation and transmission reliability criteria.

The DENSB Project represents a highly reliable source of electric generation that will allow Florida's retail-serving electric utilities with interruptible customers and load management customers to continue to serve those customers during peak periods. The DENSB Project is projected to have an equivalent availability factor of 96 percent, a forced outage rate of 1 percent, and a planned outage rate of 3 percent.

The DENSB Project transmission capabilities will consist of a short transmission line constructed from the primary side of the main step-up transformers at the DENSB Project to the UCCNSB Smyrna Substation. In addition, a second circuit is planned for the 18-mile 115 kV Smyrna-Cassadaga transmission line. A new 7.5-mile 115 kV circuit is also planned to connect the Cassadaga substation to the Lake Helen Substation.

Discussion Item # 9: Discuss how the electric utility verifies the durability of energy savings for its DSM programs.

DENSB does not, and will not, provide service to retail customers. Therefore, DENSB is not in a position to implement and verify demand-side alternatives, such as load control and interruptible rates.

<u>Discussion Item # 10</u>: Discuss how strategic concerns are incorporated in the planning process.

The DENSB Project is consistent with strategic factors that are considered by DENSB and the State of Florida for constructing a power plant. In planning the Project, DENSB considered water availability, electrical transmission capabilities, access to natural gas and other economic considerations associated with the particular location in the City of New Smyrna Beach, Volusia County, Florida. Additionally, DENSB's analysis reviewed the economic development goals of the community and determined that the Project was consistent with the positive economic benefits desired by Volusia County. The Project will bring an influx of capital, spending and taxes that will benefit Volusia County. Further, DENSB considered UCCNSB's need for capacity and energy and UCCNSB's interest in jointly pursuing the Project with DENSB.

From the State of Florida's perspective, the Project has a low installed cost and a highly efficient heat rate, assuring its long-term economic viability. Because it will be constructed at the expense of DENSB, the Project will provide power with no financial risk to Florida electric retail-serving utilities or their ratepayers and will impose no obligation on either Florida electric customers or utilities. The FRCC has the highest wholesale power prices in the country. Therefore, the DENSB Project is inframarginal with respect to those prices.

The Project's gas-fired, combined cycle technology is exceptionally clean environmentally, minimizing potential risks associated with future changes in environmental regulations. The Project's efficient technology and use of clean, natural gas fuel will improve the overall environmental profile of electric generation in Florida.

Currently, approximately 23,000 MW of existing Florida oil-and-gas fired steam turbines, combustion turbines and combined cycle units have heat rates in excess of the DENSB Project, which is projected at 6,832 Btu/kWh. This means that the DENSB will operate approximately 30 to 40 percent more efficiently than most of the state's older power plants, by generating much more electricity with much less fuel. The Project's output will displace some of the energy generated by older, less environmentally friendly power plants, resulting in a net statewide benefit and will result in significant air pollutant reductions over those produced by older, less efficient power plants.

<u>Discussion Item # 11</u>: Describe the procurement process the electric utility intends to utilize to acquire the additional supply-side resources identified in the electric utility's ten-year site plan.

DENSB has extensively reviewed other supply-side alternatives and has determined that the DENSB Project is the most cost-effective alternative for Peninsular Florida and for DENSB. Rule 25-22.082, Florida Administrative Code ("F.A.C."), requires investor-owned electric utilities to evaluate supply-side alternatives to their next generating units by issuing a Request for Proposals ("RFP") prior to filing a petition for determination of need. However, the FPSC has determined that Rule 25-22.082 does not apply to wholesale electric utilities such as DENSB. <u>See In re: Petition for Determination of Need for an Electrical Power Plant in Okeechobee County by Okeechobee Generating Company, L.L.C.</u>, Docket No. 991462-EU, Order No. PSC-99-2438-PAA-EU (December 13, 1999). Accordingly, DENSB has not issued an RFP. Duke/Flour Daniel ("DFD") will serve as DENSB's engineering procurement contractor for the Project. All procurements associated with the Project will be directed through DFD.

<u>Discussion Item # 12</u>: Provide the transmission construction and upgrade plans for electric utility system lines that must be certified under the Transmission Line Siting Act (403.52 – 403.536, F.S.) during the planning horizon. Also provide the rationale for any new or upgraded line.

The transmission system upgrades for the electric utility system lines to connect the DENSB Project to the transmission grid are considered associated facilities of the Project and are subject to the provisions of the Florida Electrical Power Plant Siting Act. <u>See</u> § 403.503(12), Fla. Stat. (1999). The additional 18-mile 115 kV Smyrna-Cassadaga transmission line and the 7.5-mile 115 kV circuit from the Cassadaga Substation to the Lake Helen Substation that are needed to support power deliveries from the DENSB Project to other Peninsular Florida utilities will not fall within the definition of transmission lines subject to the Transmission Line Siting Act.

Chapter 6
Environmental and Land Use Information

Duke Energy Corporation ("Duke Energy"), of which DENSB is an affiliate, has earned a reputation as a leader in environmental stewardship, as evidenced by the many awards the company has received from such groups as the National Wildlife Federation, The Nature Conservancy and the National Wild Turkey Federation. Protecting and responsibly managing natural resources are critical to the quality of life in the areas Duke Energy serves, the environment and Duke Energy's long-term business success. Consistent with its corporate heritage, DENSB is committed to preserving the natural environment in the City of New Smyrna Beach, Volusia County and the State of Florida.

Land and Environmental Features

The DENSB Project site is located in eastern Volusia County, approximately five miles west of downtown New Smyrna Beach. The site is located on a 30.5-acre parcel that lies approximately 0.5-miles northwest of the intersection of State Road 44 ("SR 44") and Interstate 95 ("I-95").

Adjacent to the site is the UCCNSB wastewater treatment plant. To the east is I-95. To the south is SR 44. To the west is undeveloped land. The site includes the existing UCCNSB Smyrna Substation on the west border and is bisected by an existing UCCNSB and FPL transmission line easement.

There are no sensitive natural resources, scenic or cultural lands located on the site. No archeological or historic resources are located on the site.

a. United States Geological Survey (USGS) Map

The DENSB Project is located on the Pamlico Terrace and has an average land surface elevation of 25 to 30 feet above mean sea level (ft-msl). The surficial layers beneath the site are unconsolidated sand, shell, silty sand and clay, to a depth of approximately 100 feet. Beneath the surficial layers is a sequence of sedimentary rocks comprised of limestone and dolomite having a thickness of more than 2,000 feet. A United States Geological Survey map at a scale of 1 inch: 24,000 feet showing the general location of the DENSB site is included in this Ten-Year Site Plan as ***Exhibit A***.

b. Proposed Facilities Layout Map

A map showing the general layout of the proposed facilities on the preferred site is included as ***Exhibit B***.

c. Map of Site and Adjacent Areas

Exhibit C is a map of the preferred site and adjacent areas in the vicinity of the preferred site, showing the level III, Florida Land Use, Cover and Forms Classification System land use cover data.

d. Existing Land Uses of Site and Adjacent Areas

The DENSB Project will be constructed on an approximately 16.3-acre portion of a 30.5-acre parcel. Portions of the Project site encompass an existing electrical substation and electric transmission line corridor. However, the remaining portion of the site has never been developed. The portion west of the existing transmission line/access road corridor is classified as wetland. This part of the site will not be developed by DENSB. The Project will be located on the eastern half of the site, where there are only very limited, isolated wetlands.

Existing land uses within a five-mile radius of the Project site consist of undeveloped land to the north, west, and south; agricultural activities to the west; and low-density residential to the east. Land uses adjacent to the Project site are undeveloped land to the southwest and northwest; the existing electrical substation to the north; the UCCNSB wastewater treatment plant to the northeast; and a borrow pit pond to the east. The borrow pit pond was created to provide fill during the construction of the nearby I-95 overpass of SR 44 and is currently inactive. An electrical transmission line corridor abuts a portion of the western property boundary. There is a gasoline service station at the intersection of SR 44 and I-95, with no other businesses located near the site. There are no other businesses located near the site. The nearest residence is more than 3,000 feet east of the site, on the east site of I-95. There are no sensitive human receptors, such as hospitals or schools near the site.

e. General Environmental Features On and In the Vicinity of the Site

1. Natural Environment

Approximately 79 percent of the DENSB property is currently vegetated. Wetlands cover approximately 30 percent of the site. Upland vegetation on the site is primarily pine flatwoods and shrubs (e.g., palmetto and immature pine trees). The vegetation has been cleared for the roads and trails, the transmission lines and around the substation.

No geological faults have been mapped on or near the site and, therefore, faults pose no geologic hazard to the Project. The site lies in an area where the potentials for karst development and sinkhole formation are low.

There are no sensitive natural resources, scenic or cultural lands, or archaeological or historic resources on the site. The nearest significant environmental resources are (a) the Indian River, approximately five miles to the east; (b) Spruce Creek, approximately four to five miles to the northeast and (c) a wildlife corridor, approximately 0.75-miles to the west.

2. Listed Species

Construction of the DENSB Project will have only minimal impacts on local ecological resources and virtually no impact on regional plant and animal populations. The site contains no unique ecological features or habitats.

No state or federally listed wildlife species were found onsite. The flatwoods is marginal habitat for the red-cockaded woodpecker, but no individuals or cavity trees were identified. One gopher tortoise active burrow was identified just offsite to the south.

No endangered, threatened or listed species occur onsite. Only two listed plant species, cinnamon fern and royal fern, were found. Both of these ferns are regionally common in Florida and have been listed by the Florida Department of Agriculture and Consumer Services only for their protection from overcollecting. The nearest significant habitat is a wildlife corridor located about 0.75-miles west of the site.

3. Natural Resources of Regional Significance

The East-Central Florida Regional Planning Council ("ECFRPC") identified the following public lands and resource management areas in the vicinity of the Project site:

- Indian River Lagoon and Halifax River System - Designated as an Outstanding Florida Water and as an aquatic preserve. Both have been designated as a regionally significant surface water source.
- Floridan Aquifer – The Floridan Aquifer in the area of the Project has been designated as a regionally significant ground water source.
- New Smyrna Mill Ruins – Located approximately 3.5-miles southeast of the Project site is a historical site offering picnicking and educational opportunities.
- Spruce Creek – Located approximately 4-miles northeast of the Project site, the site preserves natural communities and valuable historic resources. Spruce Creek is also designated an Outstanding Florida Waterway.
- Spruce Creek/Spruce Swamp Environmental System Corridor – A large area has been identified as an important ecological corridor that passes within approximately 0.75-miles from the Project site.

In its January 22, 1999 final report on the DENSB Project Site Certification Application, the ECFRPC did not identify any major regional concerns with the Project. The Project location was termed suitable from a regional perspective relative to wildlife, local ecology and overall health of the Spruce Creek basin. No major regional concerns in terms of housing, transportation, or natural resources were identified. The ECFRPC recommended approval of the site to the Department of Environmental Protection.

4. Other Significant Features

DENSB is not aware of any other significant features of the site.

f. Design Features and Mitigation Options

The power island for the DENSB Project will consist of two advanced technology (General Electric Frame 7FA or equivalent combustion turbine generators) two matched HRSGs and one steam turbine generator.

The Project will utilize natural gas as its only source of fuel. Natural gas is a very clean burning fuel in comparison to other fossil fuels. Natural gas does not contain significant amounts of sulfur or ash, thereby eliminating large components of emissions. The Project will use Dry Low NOx combustors to minimize the formation of NOx in the combustion process in the gas turbine.

The Project will also minimize environmental impacts by using wastewater from the UCCNSB as the primary source of water supply. Wastewater from the Project will be returned to the UCCNSB's wastewater treatment plant for treatment and reuse.

During the construction of the Project, approximately 0.7-acre of wetlands will be filled. To mitigate for these wetland impacts, DENSB will preserve a 7.1-acre forested wetland that is located on the western portion of the site (i.e., west of the transmission line corridor). A 0.7-acre cypress wetland with a 25-foot buffer (0.3-acre) of pine flatwoods will also be preserved on the eastern portion of the site near the power plant. According to the Department of Environmental Protection, this mitigation will satisfy state mitigation requirements (Section 373.414, Florida Statutes).

g. Local Government Future Land Use Designations

The site and nearby areas are primarily rural and undeveloped. The proposed DENSB Project is consistent and in compliance with the existing land use plans and zoning ordinances that are applicable to the site. The site has been annexed into the City of New Smyrna Beach. However, the city's comprehensive plan has not yet been amended to include the annexed areas. Therefore, the site is still subject to the provisions of the Volusia County comprehensive plan.

The Volusia County future land use map designates the project site within two lands use designations: Agricultural Resource and Activity Center (Industrial). The Agricultural Resource designation applies to those portions of the site that are located west of the transmission line corridor. No development is currently planned for that portion of the Project site.

The future land use element of the Volusia County comprehensive plan has identified three Activity Centers in the unincorporated portions of the county, one of which includes the plant site. The Project site is located within Southeast Activity Center that incorporates the entire I-95 and SR 44 interchange. Phase 1 of the development plan designates the plant site within the Industrial designation of the Southeast Activity Center. The development of the site includes an expansion of the existing UCCNSB substation that is located within the Public/Semi-Public designation of the activity center.

Consistent with the County's comprehensive plan, the site has been rezoned by the City as an Industrial Planned Unit Development (I-PUD) in the Southeast Activity Center. The I-PUD zoning authorized the construction and operation of an electrical power plant on the site. The city also adopted a developer's agreement, which established the land use restrictions that will govern the development of the site.

h. Site Selection Criteria and Process

Several factors were considered in the site selection process for the DENSB Project. These factors included water availability, electrical transmission capabilities, access to natural gas, community acceptance and other economic considerations. Environmental issues were not a deciding factor in the site selection process as sensitivities were insignificant at the particular location.

The site also offered a unique partnership opportunity to be developed between DENSB and the UCCNSB. This partnership offered DENSB the land and resources needed to build and operate a new power plant, and offered the UCCNSB a stable supply of low-cost electricity for resale to its more than 20,000 customers.

Water Supply

i. Water Resources

The DENSB Project is located within the St. Johns River Water Management District ("SJRWMD"). The Project water plans submitted to SJRWMD call for the use of treated effluent (reuse water) from the adjacent wastewater treatment plant for the supply of process and makeup water. Maximum reuse will be made of treated effluent provided by the UCCNSB facility. Groundwater wells will also be used to supplement the reuse water. The wells will be located at the UCCNSB wastewater treatment plant.

In addition, UCCNSB is also in the process of negotiating interconnection agreements with the City of Port Orange and the City of Daytona Beach to purchase additional excess reclaimed water those cities currently discharge into the Halifax River. These interconnections will further enhance the availability of reuse water.

SJRWMD approved the Project's water use plans in May 1999 and recommended certification of the Project.

j. Geological Features of the Site and Adjacent Areas

The DENSB site is located on the Pamlico Terrace and has an average land surface elevation of 25 to 30 feet. The site is generally rural and undeveloped with approximately 79 percent vegetated with primarily pine flatwoods and shrubs (e.g., palmetto and immature pine trees). The vegetation has been cleared for the roads and trails, the transmission lines and around the substation.

There are several wetland areas on the site, but no lakes, rivers or streams. The only surface waters near the proposed site are wetlands and a former borrow pit (immediately to the east). Most of the onsite wetlands drain to the north and eventually enter an unnamed tributary to Spruce Creek, which is located approximately 4-miles from the site. The onsite wetlands and the nearby borrow pit are classified as Class III surface waters (recreational). Spruce Creek and the unnamed tributary are classified as Outstanding Florida Waters. Spruce Creek discharges to the Intracoastal Waterway and then to the Atlantic Ocean.

Portions of the site lie within the 100-year floodplain according to floodplain information from the Federal Emergency Management Agency.

k. Projected Water Quantities for the Project

The sources of cooling water include treated effluent from the UCCNSB wastewater treatment plant, available treated effluent from the cities of Daytona

Beach and Port Orange, groundwater from an onsite wellfield and raw water supplied by UCCNSB.

Plant water use for the DENSB Project will average approximately 3.75 mgd up to a maximum of 5.0 mgd. Water use projections increase with decreasing averaging time, due to the assumption of increased ambient temperature and/or decreased relative humidity, both of which affect consumption of water.

Maximum reuse will be made of available treated effluent from the UCCNSB wastewater treatment plant. Approximately 2.0 mgd will be immediately available to the Project. The flow of treated effluent may increase at times when there is a reduced need for the wastewater treatment plant's reuse water by other UCCNSB customers (e.g., golf courses). As UCCNSB facility's throughput increases over time resulting from population growth in the area, it is possible that a larger amount of reuse water will be available to the DENSB Project.

The residual supply of water will either be provided by available reuse supplies from the cities of Daytona Beach and/or Port Orange or by groundwater wells installed at the UCCNSB wastewater treatment plant. The groundwater wells will be designed to supply up to 1.2 mgd (annual average). As a back up to the water supply system, the DENSB Project's full requirements will be met on a short-term basis by the UCCNSB potable water system.

Water for potable and sanitary uses will be obtained from UCCNSB's potable water supply system. Typical usage for a facility of this type and size is approximately 0.5 gallons per minute ("gpm").

I. Water Supply Options

One of the prominent features of the DENSB Project is the planned use of treated effluent (reuse water) from the adjacent UCCNSB wastewater treatment plant for the supply makeup water to the cooling system, as well as process needs, thereby recycling this water and displacing the need for potable water. Non-cooling water requirements will include makeup to the HRSGs, makeup to the combustion turbine generator "(CTG") evaporative coolers, general service water, fire protection water, and potable water.

It is DENSB's intent to utilize available supplies of reuse water whenever possible for the Project's water supply needs. Upon operation, at least 53 percent of the Project's process and make-up water will be supplied by the UCCNSB facility. UCCNSB is also in the process of negotiating interconnection agreements with the City of Port Orange and the City of Daytona Beach to purchase additional excess reclaimed water those cities currently discharge into the Halifax River. These interconnections will further enhance the availability of reuse water.

Groundwater wells will be used to supplement the reuse water supply should the cities of Port Orange and Daytona Beach elect not to enter into sales agreements. These groundwater wells would be located at the Project site or at the UCCNSB wastewater treatment plant and will be designed to provide up to 1.2 mgd. UCCNSB's potable water system will serve as a back up to the DENSB Project water supply system on a short-term basis.

The DENSB water use plans were approved by the SJRWMD in May 1999. The SJRWMD concluded that the Project's water use plan will have minimal effects on the surficial aquifer and Floridan Aquifer and satisfied its criteria for the issuance of a consumptive use permit.

m. Water Conservation Strategies Under Consideration

DENSB will implement the following water conservation measures:

1. Use of treated effluent (reuse water) to the maximum extent possible from the UCCNSB wastewater treatment plant. In addition, UCCNSB is currently negotiating with the Cities of Daytona Beach and Port Orange for available supplies of reuse water for the Project which will further mitigate the use of groundwater.
2. DENSB will recycle approximately 50 percent of all water used in the Project by sending blowdown concentrate back to the UCCNSB wastewater treatment plant for treatment and reuse.
3. The Project will be designed to maximize the number of times that the cooling tower makeup water can be recycled. The water will be recycled four times to minimize water use while not exceeding water quality constraints.

4. The cooling tower will be equipped with drift eliminators to limit liquid drift losses to 0.005 percent or less of circulating flow.
5. Demineralization technology will be used to produce essentially solids-free boiler feed water that will result in boiler blowdown rates of one percent of less.
6. The use of natural gas as the sole fuel source will save up to 0.52 mgd of water for control of air pollutant emissions that would have to be utilized for oil-fired generation.

n. Water Discharges and Pollution Control

During operation, the DENSB Project will produce various process wastewaters, all of which will be discharged to the adjacent UCCNSB wastewater treatment plant. No process waste streams or water treatment discharges will be released to the environment.

The principal wastewater streams will be cooling tower blowdown, backwashes from the water filtration and treatment system and wastewaters from a neutralization system and an oil/water separator. A waste neutralization system will receive regeneration wastes from the demineralized water system and the chemical waste sump. This system will agitate the regeneration wastes and inject acid or caustic to adjust the pH of the wastes to desired levels. Process wastewater containing oils will be segregated from other wastewater. This wastewater will be collected in the oily wastewater sump, where an oil/water separator will remove the oil.

Treated wastewater and blowdown from the cooling tower will be discharged to the adjacent UCCNSB wastewater treatment plant. A maximum discharge rate of approximately 748 gpm (1.08 mgd) is estimated, while an average annual rate of discharge of 575 gpm (0.83 mgd) is expected.

A lift station will pump sanitary wastewater to the adjacent wastewater treatment plant. Based upon the expected staffing level at the DENSB Project, an estimated flow of 0.5 gpm of sanitary wastewater will be generated.

The site drainage facilities for the Project will be constructed and operated to control storm water runoff on the site during construction and operation phases of the Project. The system will be designed using SJRWMD and Florida Department of Environmental Protection criteria for control of quantity and quality of runoff. The offsite drainage system will be independent of these diversions and will consist of swales, channels, pipes and culverts. The system will be arranged and sized to intercept runoff from the various uncontaminated pervious and impervious surfaces of the site and transfer that runoff to a storm water detention pond. The discharge from the storm water detention pond will flow through a channel to an unnamed wetland that extends forth from the site toward Spruce Creek, where it will join the offsite diverted flow to drain naturally to ground water or to Spruce Creek and the Halifax River estuary.

The onsite storm water detention pond and plant drainage system will be designed to control the peak runoff from a 25-year, 24-hour storm event. Flows from storm events that exceed the established peak will pass over a weir to directly enter the unnamed wetland drainage leading to Spruce Creek via a concrete-lined channel.

o. Fuel Delivery, Storage, Waste Disposal and Pollution Control

Materials and supplies used for the operation of the Project will be delivered by truck.

Natural gas will be provided to the DENSB Project through an existing contract with Citrus Trading Corporation, transported through the Florida Gas Transmission Company ("FGT") pipeline. The Project will require a 42-mile long, 16-inch lateral pipeline that will originate at FGT's main pipeline near Mt. Plymouth, in Lake County, Florida, and run through Lake, Seminole and Volusia Counties. In Volusia County, the pipeline will be routed along SR 44 and the plant access road, to the DENSB Project gas metering station. The permitting, design, procurement and construction of the pipeline will be coordinated by FGT through its Phase V filing. FGT Phase V operation is anticipated for the spring of 2002. Fuel oil for the facility will not be utilized. Therefore, oil storage tanks will not exist on the site.

During operation of the Project, non-hazardous solid wastes will be generated periodically. Wastes generated by the Project will include water treatment solids, used air inlet filters, waste oils and other maintenance wastes, along with plant refuse. All wastes generated at the Project will be disposed of at an offsite, licensed facility that is registered/permitted in accordance with the appropriate regulations.

Minimal quantities of hazardous wastes will only be occasionally produced at the Project. All attempts will be made to select and use solvents, paints and other maintenance chemical to produce non-hazardous wastes. In the circumstances that the Project generates hazardous wastes, the wastes will be managed in accordance with Chapter 62-730, F.A.C.

Air and Noise Emissions

p. Air Emissions and Control Systems

The conceptual design of the DENSB Project incorporates state-of-the-art technology at every step, starting with the selection of the General Electric F-class CTG. The high efficiency of the Project will reduce emission per unit of output by producing each MWH of electricity with less combustion of fuel. The use of low-sulfur natural gas as the only fuel for the CTGs also has the benefit of reducing emissions.

The fuel source for the Project will be low-sulfur natural gas. Low-sulfur natural gas represents the cleanest fuel burning of the fossil fuels and is the new fuel source of choice for generation projects due principally to the absence of sulfur and particulate matter in the constituents. Sulfur dioxide ("SO2") and particulate matter ("PM") are two main contributing factors that represent the plume that is emitted from power plant stacks. Natural gas does not contain significant amounts of sulfur or ash, therefore eliminating large components of emissions.

Carbon Monoxide ("CO") and Volatile Organic Compounds "(VOC") emissions from the CTGs will be controlled by the use of advanced combustion equipment and operational practice to obtain efficient combustion. The use of drift eliminators to limit drift to no more that 0.005 percent of circulating water will control PM emissions from the cooling towers.

The DENSB Project must undergo Prevention of Significant Deterioration ("PSD") review to determine whether significant air quality deterioration will result from the operation of the facility. A Best Available Control Technology (BACT) analysis was performed for each pollutant that is subject to the PSD review to ensure that the facility will use BACT to minimize the emission of airborne pollutants. The PSD review confirmed that the operation of the Project would not cause or contribute to any violation of ambient air quality standards or PSD increments.

The secondary air quality impacts of the Project are expected to be negligible. Opacity from the plant's exhaust stack will be near zero. The types and concentrations of pollutants emitted from the power plant will not adversely affect soils or vegetation.

q. Noise Emissions and Control Systems

Volusia County has a noise ordinance that limits noise produced in certain land use categories. Ambient noise monitoring indicated that ambient noise measured in the site vicinity was within the limits established by Volusia County's ordinance.

DENSB assessed the potential operational noise impact at the four site boundaries, the intersection of the facility service road and SR 44 and the service station on the northwest corner of the junction of I-95 and SR 44. The model used to evaluate the impact was NOISCALC, which was developed by the New York State Department of Public Service.

As evidenced in the following chart, the predicted noise levels at the north, south and west property boundaries, and the service road/SR 44 intersection are all less than the Volusia County sound level limit of 75 decibels ("dBA") for manufacturing and agricultural occupancy. The predicted noise level at the eastern property boundary is equal to the 75-dBA sound level limit for manufacturing and agricultural occupancy.

Ambient Receptor	dBA	Sound Level Limit (dBA)*
North Property Boundary	74	75
East Property Boundary	75	75
South Property Boundary	70	75
West Property Boundary	69	75
Intersection, Service Road/SR 44	61	75
Service Station	60	65 day, 60 night

*Volusia County Ordinance 83-22

A substantial vegetative buffer will remain in place between the facility and the service station and the service road/SR 44 intersection. However, in order to be conservative in its analysis, the modeling conducted by DENSB did not include the noise attenuation that will occur because of this vegetation. Given the conservatism associated with this modeling analysis, it can be concluded that the Project will comply with the Volusia County standard. The predicted 60-dBA noise level at the service station is less than the commercial occupancy daytime sound level limit of 65-dBA and equal to the nighttime sound level of 60-dBA. The actual noise at the service station will be lower due to the attenuation effects of the vegetative barrier located between the Project and the service station.

Other

Status of Application

DENSB and UCCNSB received a determination of need for the Project on March 4, 1999. The FPSC's order granting the need determination was appealed to the Florida Supreme Court. The Florida Supreme Court heard oral argument on February 9, 2000. Assuming that the FPSC's decision is upheld on appeal, the Governor and the Cabinet sitting as the Siting Board are expected to address DENSB and UCCNSB's Site Certification Application shortly after the Florida Supreme Court issues its decision.

Chapter 7
Exhibits

Exhibit A

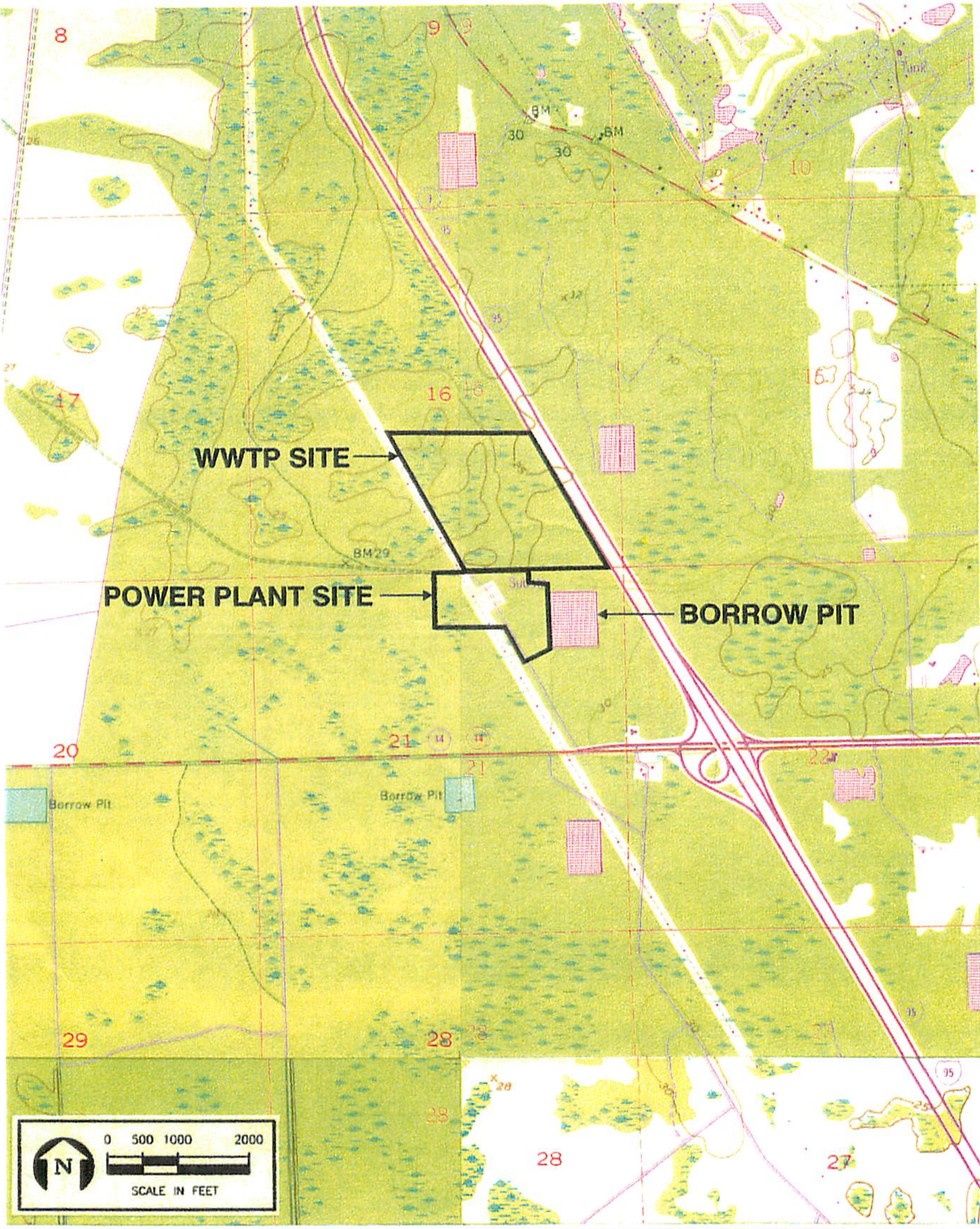


FIGURE 2.1.0-3.

PROJECT SITE LOCATION AND SURROUNDINGS

Source: USGS Quads: New Smyrna Beach, FL, 1993; Edgewater, FL, 1970; Samsula, FL, 1993; Lake Ashby, FL, 1988.

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Exhibit B

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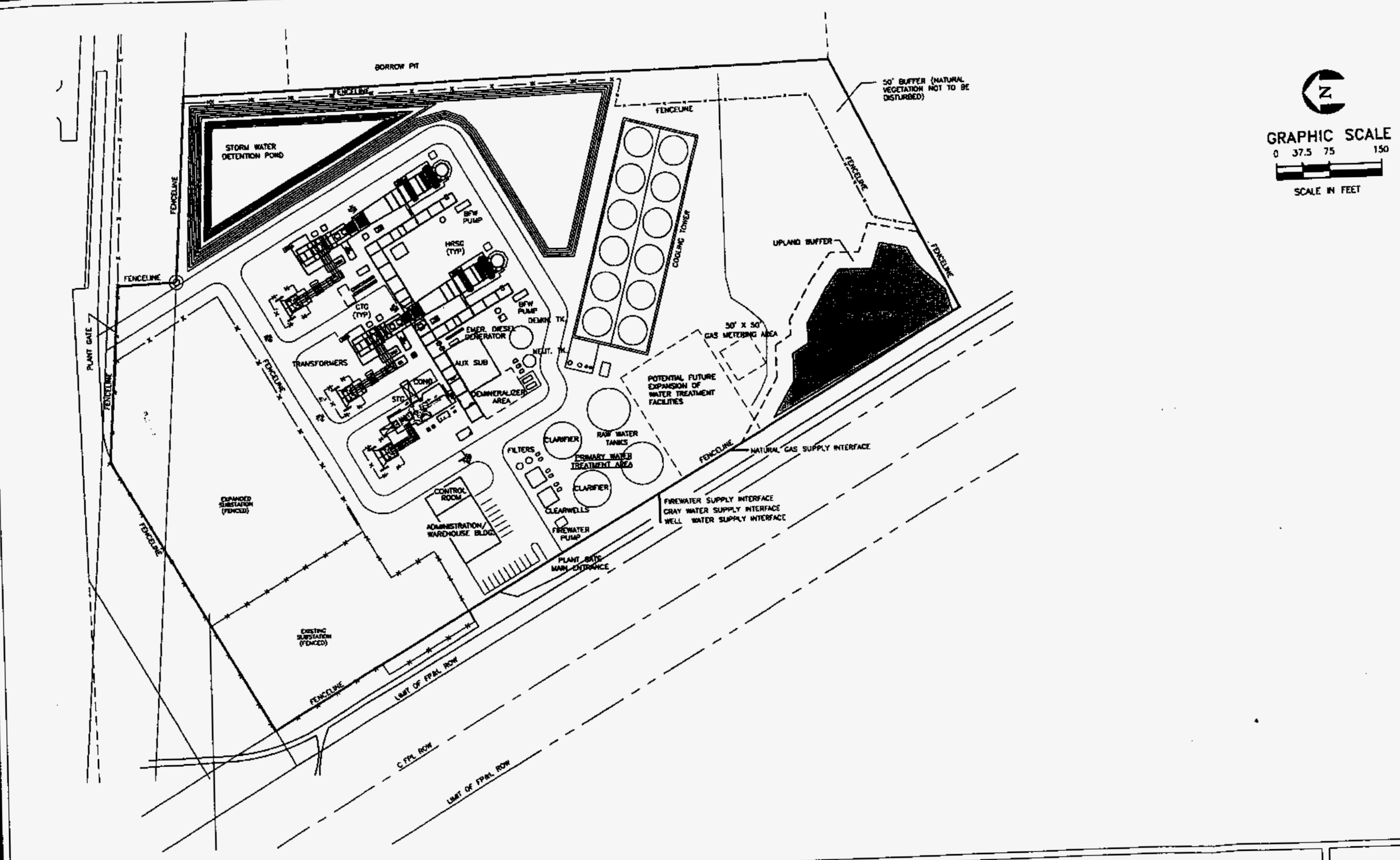

FIGURE 3.2.0-2.

PROPOSED PLANT LAYOUT

Source: D/FD, 1998

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Exhibit C

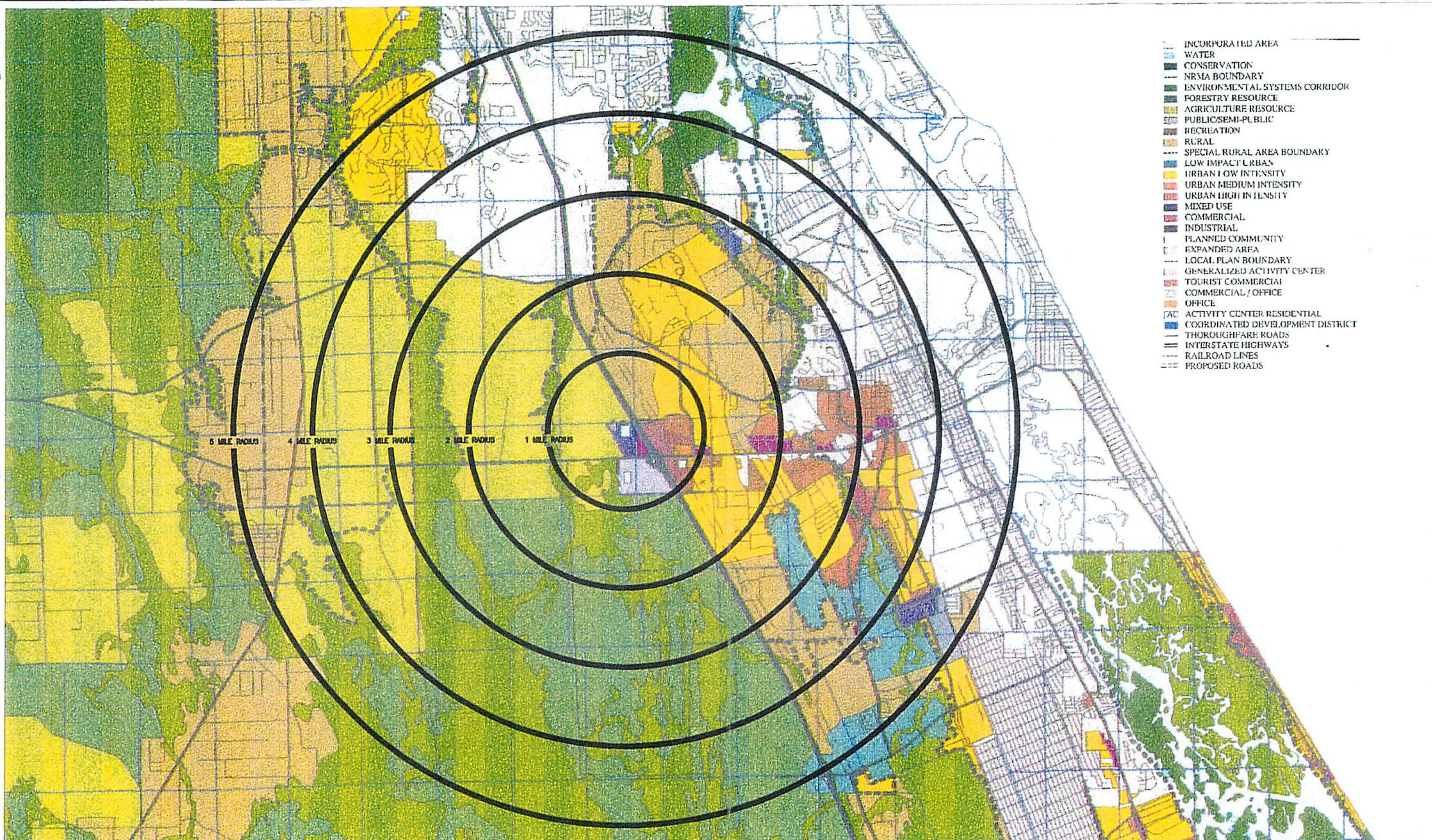

FIGURE 2.2.2-1.

VOLUSIA COUNTY LAND USE CATEGORIES IN PROXIMITY TO THE SITE

Sources: Volusia County Growth Management Department, 1998; ECT, 1998.

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