NRC DEIS Hearing PEF Levy Nukes 1 & 2 Crystal River, Florida Plantation Inn 9-23-10

Executive Summary

In review of the application by Progress Energy Florida (Applicant), and formulation of the DRAFT EIS (DEIS), it appears the Nuclear Regulatory Commission (NRC) has failed to understand and/or evaluate several key issues related to direct and indirect surface water impacts and indirect regional ground water impacts. The DEIS, Section 2.3 states in part;

"This section describes the hydrologic processes and waterbodies in and around the LNP site, the existing water use, and the quality of water in the environment of the proposed LNP Units 1 and 2. This description is limited to only the parts of the hydrosphere that may affect or be affected by building and operation of proposed LNP Units 1 and 2. During operations of proposed LNP Units 1 and 2, the Gulf of Mexico, via the CFBC would be the source of makeup water for normal plant operations (Figure 2-6)."

It is submitted that the "description" ignores hydrosphere components which will be impacted and for which NRC has authority to examine. Per the DEIS, the Gulf of Mexico actually provides a substantial minority share of cooling water source versus being "the" source (**DEIS Fig 5-4**). NRC has not examined impacts to receiving waters and Preserves which will result from <u>freshwater diversion</u> for consumptive plant use. Reduced freshwater contribution from the Withlacoochee River system will precipitate degradation of coastal estuaries. The chosen site location for the Circulating Water Intake System (CWIS) will interfere with future resource development and facilitate degradation of aquatic systems within the 50 mile radius of the plant site as reviewed by the NRC. Due to this oversight, the determination by NRC related to environmental and economic impacts appears incomplete.

The NRC has reviewed many aspects of the COLA within the 50 mile radius, but the focus of marine surface water impacts is limited to Crystal Bay and the Cross Florida Barge Canal (CFBC). We conclude the NRC has legal authority for expanded estuarine impact review as well as examination of long term economic and regional hydrology impacts based on Federal statutory provisions referenced is subsequent discussion.

NRC determinations related to surface water impacts focus on Crystal Bay discharge and intake from the CFBC. There is the appearance that NRC has misunderstood system hydrology and dynamics, in and near the CFBC, precipitated in part by the Applicant's COLA. The determination ignores implications of regional impacts to water resources that will be directly and indirectly precipitated by approval of the application without modification or direction to viable and beneficial alternatives. It ignores impacts to habitat known to support multiple Endangered Species Act listed species. This document will examine the DEIS in context of operational impacts to surface waters and coastal resources as well as probable impacts to regional water supplies.

The Withlacoochee Area Residents, Inc. (WAR) has substantial interest in the final determination for this application. The organization was founded in 1984 and has been deeply involved in regional water resource issues to date. The corporation is based in Inglis, Fl. WAR has not contested findings of need for the Applicant's proposal, nor argued benefits of the technology.

The essential concern expressed by WAR is the impacts which will result from authorization of the proposed Circulating Water Intake System (CWIS) site location. There are alternatives that will not result in obstruction of sound resource management policy, System restoration objectives set forth by a State water board and estuarine impacts to Outstanding Florida Waters and State Aquatic Preserves. These alternatives can provide for maximum beneficial utilization of water resources across the spectrum of users found in the region and need not impinge environmental considerations or operational considerations of the project.

INTRODUCTION

Unlike NRC, which has limited examination of marine surface waters to the Crystal Bay and CFBC, the Florida Department of Environmental Protection (FDEP) describes the Withlacoochee River as a geomorphic feature of the Big Bend Sea Grasses Aquatic Preserve (BBSGP). <u>http://www.dep.state.fl.us/coastal/sites/bigbend/info.htm</u> The State's description is pertinent due to the riverine system's contribution to the coastal estuary, and in that contribution the whole of the system water supply is included. This necessarily includes fresh water supply from the CFBC as well as the river channel.

There are multiple Preserves associated with the BBSGP and its southernmost component, Waccasassa Bay. The Bay is designated as a National Natural Landmark by the National Park Service. The BBSGP has also been designated as an EPA Gulf of Mexico Ecological Management Site. Waccasassa Bay is identified as a stable environment by the FDEP August 2010 Draft *"Site-Specific Information in Support of Establishing Numeric Nutrient Criteria In Suwannee Estuary/Suwannee Sound/Cedar Keys, Waccasassa Bay, and Withlacoochee Bay",* FDEP (<u>Attachment B</u>).

The Withlacoochee Bay is immediately adjacent to the mouth of the Withlacoochee River and lies inshore of the BBSGP and Waccasassa Bay Preserve. It is recognized in the DEIS as receiving waters for CFBC discharges in DEIS Section 2.4.2.1. The predominant delineation of the Bay lies west and north of the CFBC; however the geophysical boundaries of Withlacoochee Bay are not clear. It is clear however that the Bay is not a large expanse and what impacts this feature will surely spill over into Waccasassa Bay. Coastal hydrology and chemistry do not recognize abstract delineations. Like the Waccasassa Bay Preserve, it is recognized as habitat for multiple listed species. These waters are also recognized as a major shark nursery as identified by Mote Marine Laboratory (<u>Attachment C</u>). The study provided by Mote Marine Laboratory identifies substantial data clusters (occurrences), both north and south of the River and CFBC mouth.

On 18 August 2010 various federal officials including Admiral Thad Allen (USCG, Ret.) and Dr. Jane Lubchenko (Administrator, NOAA) took part in a live release of 23 Kemp Ridley sea turtles in the vicinity of Cedar Key, Fl. The turtles had been rehabilitated from oil exposure resulting from the BP/Deep Water Horizon disaster. Dr. Lubchenko explained the site was chosen for several reasons, not the least of which being "…because this is the best type of habitat for the Kemps Ridley turtles of this age." The turtles were juveniles that weighed approximately 5 pounds. Further, she described the choice of waters around Cedar Key being due to the "pristine nature of the water and the habitat…"

Meghan Koperski, an environmental specialist with the Florida Fish, Wildlife and Conservation Commission based in Tequesta, Fl. was quoted: "They were released offshore in an area known to be a Kemp's Ridley foraging habitat," she said. "Hopefully they will go out and behave like normal turtles." She said the sea turtles are very fond of crunchy items — like crabs. Why the release in Cedar Key? "It's a known hotspot for Kemp's Ridley. They're here year round. They are always offshore in the waters ... This is not a seasonal thing for them." (Citrus Chronicle, 19 August 2010, Page 1) The Kemp Ridley sea turtle is but one of 3 listed marine turtles dependent upon this habitat and a forth is listed as threatened. Additional protected marine species dependent upon such habitat include Manatees and Dolphins.

Cedar Key is located on the northwest quadrant of Waccasassa Bay approximately 16.25 miles from the mouth of the Withlacoochee River. A comprehensive review of coastal estuaries with specific discussion of the Lower River, CFBC and Waccasassa Bay is provided as <u>Attachment D (Packard, Vol. 2 of 3 volumes</u>).

The original mouth of the Withlacoochee River (Outstanding Florida Water) channel is 1/3 mile north of the CFBC channel at its closest proximity on the south side of Chamber's Island. The mouth of the newer dredged channel serving for navigation to the Withlacoochee River is slightly over one mile north of the CFBC as it clears existing natural reefs and small islands. The mouth of Bennett's Creek is .38 miles from closest proximity to the CFBC and the Creek is a connected to the Withlacoochee River about 1/3 mile southwest of the Yankeetown municipal limits. (Attachment E-Map overview)

The closest proximity of the BBSGP to the Withlacoochee River mouth (new) is approximately 2.5 statute miles due west. Proximity to the mouth of the CFBC is approximately 3.2 miles west by northwest. (Attachment F (Waccasassa Bay Preserve State Park Mgmt Plan)). Additional coastal tributaries to the estuary discharge in direct and immediate proximity to the CFBC through State Preserve lands sited on the north shore of the CFBC and southwest of Yankeetown. Due to this close integration and for additional reasons discussed later, WAR disagrees with the conclusions in DEIS Section(s) 2.4.2 and 2.4.2.1.

This submission deals with impacts to surface waters and system flows and sources thereof, which includes ground water. The DEIS details components of the Withlacoochee River (System) in the form of upper, middle and lower river segments. The DEIS assigns values to System flows based on USGS flow gauges located at various sites and the values are represented as Mean Values. Within the DEIS, discussion related to System impacts, flows and demand, use mixed standards such as Millions of Gallons per Day (MGD) and Cubic Feet per Second (CFS) interchangeably.

For the purpose of this document and discussion all flow values will be in **CFS** and System or component flows will be represented as averages unless otherwise represented. Stipulated consumptive use demand will be represented as CFS. Source reference is the Applicant's Combined Operating License Application, USGS and/or the Southwest Florida Water Management District (SWFWMD).

1. ANALYSIS

Issues of surface water impacts due to consumptive use of water by the CWIS are significant, and in several respects are not addressed by the Applicant and NRC via the DEIS. At the first tier of potential impacts there is no discussion in any form within the application or DEIS related to modification of salinity and SO4 natural background chemistry in the coastal estuaries north of the CFBC. WAR contends that barring such review there is no assurance of consistency with Federal Statute set forth within the National Environmental Policy Act, the Clean Water Act,

Endangered Species Act, and Marine Mammal Protection Act. It is not clear the DEIS conclusions are supported by determinations made or pending by the US Army Corps of Engineers (ACoE) and/or other Federal Agencies. In consideration of the absence of ACoE determinations and reference to other Federal Agency determinations it appears the release of the DEIS is premature. Pertinent citations related to authority and specific issues include but are not limited to:

NEPA, [42 USC 4331] Sec 102 (A)(B)(C, I-V) [42 USC 4333] Sec 104
Federal Water Pollution Control Act (CWA) [33 USC 1251 et seq] Nov. 2002 Title 1-Research and Related Programs, Sec. 101 (A)(2) Sec. 303 (I)(3) Sec. 304 (3)(f)(F)
Endangered Species Act of 1973 amended 24 Jan 2002 Sec 2, 16 USC 1531 (a)(1, 2, 3, 5(b) (c) (1,2) Sec 3 (19) Sec 9, 50 CFR 17.3 Sec 7, 16 USC 1956 (a)(1), (4) Sec 9, 16 USC 1538 (1)(G)
Marine Mammal Protection Act of 1972, amended 2007 Sec 2, (1)(2)(3)(5(B))(6)(18(A(i,ii)(C)) 16 U.S.C. 1382 Sec. 112.(b)

There is brief mention within the DEIS of plans set forth by the Withlacoochee Regional Water Supply Authority (WRWSA) and the SWFWMD Regional Water Plan. Related determinations under way by SWFWMD for Withlacoochee River Minimum Flows and Levels will influence these plans. The Applicant's proposal will have direct and indirect impacts on such plans. Cumulative impacts from all planning processes under review at present will reduce System contribution to the coastal estuary by as much as ~22% during average annual flow scenarios and this may run afoul of Federal Statutes as previously listed. There is no discussion in the DEIS or by the Applicant to these points.

Per submissions by the Applicant, the DEIS and miscellaneous State documents, the Interstate 75 corridor north of Interstate 4 and west to the Gulf Coast is anticipated to be a region of substantial growth and development over the next fifty years (<u>Attachment G-FWC 2060</u>). Such considerations weighed heavily in findings of need by the State Public Service Commission for the Applicant. Water use planning necessary to support this growth lags behind the permitting processes of this application, but is not examined by the Applicant or NRC. Florida has several options for water supply to include ground water, surface water, reclaimed water and desalinization of sea water in ascending order of expense. The Applicant's proposal and the DEIS fail to recognize that misguided use of freshwater components within the CFBC will, in addition to impacts on the estuary, likely require the state to rely on ground water in the areas of The Villages and Ocala or other locations in the region. Increases in ground water consumption will impact spring flows within the 50 mile radius reviewed by NRC as submitted by the Applicant. These springs are dynamic economic engines within the region and support diverse

ecosystems. Loss of spring/base flow contribution to the Withlacoochee River will precipitate degradation to the Lower River System and receiving Gulf estuaries.

a. Withlacoochee Riverine System and Estuaries

It is estimated that approximately 70% of the System flow originates from base flow and springs ((Trommer et al., 2009) Attachment P pg51)). The remainder is supplied by tributaries.

The average System flow as outlined in the COLA and supported by the SWFWMD at the containment structures on the west end of Lake Rousseau approximates 1,460 CFS on an annual average basis (<u>Attachment H-SWFWMD</u>). This flow volume does not include unregulated flows which are referenced in the COLA and represented below. There is no discernable trend of decline in System flows over the period reviewed by regulatory authorities for this application.

As described by various regulatory agencies and Applicant, the distribution of System flows through the containment and management structures at the west end of Lake Rousseau on an annual average are as follows:

Inglis Dam	423 CFS
Inglis Bypass Spillway	1037 CFS
Springs or leaks at the Inglis Dam	70 CFS
Applicant estimates of CFBC spring flows	<u>50 CFS</u>
TOTAL	1580 CFS

These figures can be misleading in context of this discussion because they do not represent extremes in seasonal or periodic system flows variations. Maximum and minimum average monthly flows are found in the COLA and are reasonably represented in **Attachment H**. They are:

Maximum - 7000+ CFS Minimum - ~550 CFS

The Applicant has suggested a 50 CFS contribution originates "near" the Inglis Locks and this has been accepted by NRC in DEIS text. It is illustrated in **Figure 5-4** of the DEIS. WAR finds the character of the submission vague and misleading, and the endorsement of NRC misguided. Due to potential impacts to State and Federal waters it is suggested that credible identification of location and quantification of supply from these spring features is merited.

If assertions by the Applicant are correct there is additional spring flow contribution in the CFBC that is unaccounted for by the COLA and DEIS. If the Applicant is incorrect the hydrologic analysis of the CFBC is incorrect and conclusions in the DEIS are not supported. WAR is aware of spring vents visible at low minus tide scenarios that are located west of the US 19 Bridge that crosses the CFBC, or 3 - 5.6 statute miles west of the Inglis Locks. The clustered nature of these features implies that more are present yet unidentified. NRC cannot properly quantify estuarine

impacts if the collective system contribution and Applicant's consumption of fresh water supply is unknown.

The following photos which represent a small portion of approximately 40 spring weeps, cascades and boils located west of the bridge and visible during low minus tides:









A full array of photos is provided as <u>Attachment I</u>.

The location of springs as presented in the COLA is vague, as is quantification of contribution to the System as accounted for by the Applicant and NRC review. Estimates are a crude measure as compared to technology which may finely evaluate such hydrologic considerations. The technology to identify all such sources of fresh water supply to the CFBC exists in the form of airborne thermal imaging (<u>Attachment J-Raabe-Bialkowska-Jelinska</u>) for location, and Doppler technology for quantification. Such technology or variations thereof was used by the Applicant for evaluation of offshore currents. (COLA Part 3 ER, Chapter 6, 6.3.1.4)

The Withlacoochee River system, inclusive of fresh water discharge through the CFBC is the dominant supply of fresh water to the coastal estuary system including the Withlacoochee Bay, Waccasassa Bay and the southern extremity of the BBSGP. The System provides fresh water throughout the year whereas the Waccasassa River does not during dry season or drought conditions.

Section 4.3.2.3 of the DEIS identifies only the blue crab as a commercially exploited species in the estuary and posits that other commercial activity is dislocated well offshore. Commercial fisheries have always been a small component of economic activity in the immediate area of the CFBC and Withlacoochee River mouths while recreational activities in the form of sport fishing, boating and eco-tourism have been and remain enormously productive for the local economies of Inglis and Yankeetown, Fl. Since plant operational impacts are not evaluated by the Applicant or NRC in context of altered estuary water chemistry, WAR concludes there is no basis for the conclusions of DEIS Section(s) 4.3.2.6 and 5.3.2.3 due to inappropriately narrow scope of the investigation.

The discharge plumes from the Crystal River Energy Complex as represented in **DEIS Figures 5.6, 5.7 and 5.8** and are delineated into the southern extremity of the BBSGP boundaries and it is reasonable to conclude examination of marine water chemistry alteration due to diversion and consumptive use is likewise justified. Such alterations will impact a valuable and stable coastal estuary system for the life of the plant and such impacts will begin at the bottom of the food chain.

b. Consumptive Use

The Applicant posits that 120 CFS freshwater supply originates within CFBC via springs and the upper segment of the Lower River, also described as the OWR in COLA submissions. This supply is dependable and largely uninterrupted. Fresh water supplies contributing to the CFBC water budget are thought to be of generally higher quality that System surface waters and this is supported by comparison of the PEF COLA Part 3 ER, Section 2.4.2.2.2.1 review of analytical parameters and water quality data from SWFWMD supplied for Rainbow Springs, Lake Rousseau and the Lower Withlacoochee River as <u>Attachment K(data and map)</u>. The applicant further submits that inshore flows of seawater from the Gulf of Mexico will prevail in the CFBC except in high flow scenarios when managed discharges from the Inglis Dam occur.

While WAR recognizes that mixing will occur in the salt water/freshwater interface along the wedge created in the CFBC by tides and source dynamics, without substantial forces to mix the different densities of water (salt & fresh) there is little reason to conclude mixing will occur on a

large scale. This conclusion is supported by the presence of the wedge existing between the different densities as referenced in the COLA in spite of tidal action within the CFBC. Since the Applicant alleges a predominate easterly flow of sea water in the CFBC it is reasonable to conclude that the CWIS will capture approximately 120 CFS or more of fresh water on a daily average during low flow scenarios in the System. (**DEIS Figure 5-4**)

The estimate of spring contribution to the CFBC from sources "near" the Inglis Locks is imprecise because the applicant has only estimated the volume of this contribution and has not examined the scope of the CFBC to locate such features although the technology exists to do so for both visible and submerged discharge points. WAR contends there are submerged vents discharging undetermined volumes of fresh water in the CFBC and given that technological means exist to quantify this contribution. Lacking concise evaluation DEIS conclusions are little more than a guess as are the impact conclusions represented within.

Because predominate flow in the CFBC will be eastward and because the CWIS will create a slight down gradient from west to east, it is not clear that any freshwater in the CFBC will escape the canal during low flow scenarios. During System low flow scenarios, the CWIS will remove from 120-190 CFS of freshwater supply to the estuary at times when the total System estuary contribution may be in the range of 550 CFS. This will amount to a seasonal or drought period loss of 21.8%-34.5% of freshwater contribution. Since the predominate inshore coastal currents at the mouth of the CFBC and Withlacoochee River are northward, or counter clockwise in the Gulf of Mexico (Attachment L-ULA-USGS Coastal Currents and DEIS figures 5.6, 5.7 and 5.8), this contribution will be removed from Withlacoochee Bay and the BBSGP, thus promoting altered water chemistry to include salinity and SO4 concentrations. This conclusion is supported in part because the plume graphics in the referenced figures is based on dispersal from a point approximately 2.4 miles south southeast of the point where the CFBC channel clears coastal islands and other obstructions. The influence of estuary chemistry alterations must be referenced to the CFBC mouth in this discussion and any future investigation into this issue. Because this diversion of fresh water has not been evaluated we question the validity of Florida's determination of consistency with the Clean Water Act and Coastal Zone Management Act (DEIS Section(s) 2.2.1 and 5.2). Because chronic modification of estuarine salinity and sulfate (SO4) levels has not been evaluated (Attachment M (FDEP RAI (DEP23)) we are concerned this consumptive use will violate the ESA and CWA, contrary to DEIS Section 2.3 which asserts State waters and waters under authority of Federal Statute will not be impacted by this project. We do not agree that estuarine impacts will be small. Furthermore, such determinations may contribute to economic loss due to degradation of State Class II and Class III shellfish waters in Waccasassa Bay.

The System and local estuaries are a stable and very productive ecosystem with tremendous economic value. Degradation caused by failure to fully evaluate water chemistry modification and resultant habitat alteration impacts is not consistent with the intent of the State or Federal regulation, <u>nor are such impacts necessary</u>.

Section 9.4.2.4 of the DEIS states in part; "**The Withlacoochee River is designated as an Outstanding Florida Water and therefore has regulatory protection (Fla. Admin. Code 62-302). In addition, the Withlacoochee River Basin Board has made the restoration of Lake**

Rousseau and the Lower Withlacoochee River a priority in its Fiscal Year 2006 Basin Priorities Statement. Both of these surface waters contribute to a major groundwater recharge area (PEF 2009e)."

What is not recognized in conclusions of the DEIS is a significant point. In making restoration of Lake Rousseau and the Lower Withlacoochee River a <u>Priority</u>, the Withlacoochee Basin Board examined several issues that adversely impacted the System. On the point of the Lower River, a primary cause of degradation is reduced system flows caused by construction of the CFBC. Reduced flows have contributed greatly to inshore dislocation of historic isohaline values and the river has lost historic scouring action once caused by higher system flows. Discussion of this and alterations of System water chemistry is discussed in <u>Attachment N-Janicki.</u>

As part of the examination of how to address these deficiencies a two volume study was commissioned by the SWFWMD and performed by URS Corp (<u>Attachment O-Alternatives</u> <u>Study</u>) which details 3 alternatives for restoration and a no action alternative. It is noteworthy that the three restoration alternatives involved restoring the hydraulic connection between the severed segments of the river resulting from the CFBC construction. Location of the Applicant's CWIS at the proposed site will prevent such action by the State.

In certification of the application by the State under provisions of FS403, a certain condition was attached (Condition J) which implies at some point in the future the State may move to modify structures in the CFBC and after public hearing the Applicant may be required to relocate the CWIS or other architecture as necessary. Should the State does so for purposes of restoration or impoundment of fresh water resources for public beneficial use, rate payers will fund both initial and subsequent construction costs of the CWIS if relocation is required. In truth, we would prefer to do so only once.

DEIS Section 7.2.1.1 states in part; "In a preliminary study conducted by the Withlacoochee Regional Water Supply Authority in cooperation with the SWFWMD, the agencies concluded that **an additional 93 Mgd of surface water supply may potentially be available from the river.**" (<u>Attachment P-NRWP-SWFWMD</u>)

Due to containment structure design for Lake Rousseau, consumptive water use described in the foregoing statement will result in corresponding reduction of flows to the Lower River via the Inglis Bypass Channel and Spillway. (<u>Attachment Q</u>) This volume of flow will result in a 143+CFS reduction in System component flow and in conjunction with the Applicant's consumption of fresh water from the CFBC will result in a loss of fresh water contribution to the estuary ranging from 47.8-60.5% during low flow scenarios in the System. It is not clear the State will be able to certify consistency with the Clean Water Act in this circumstance; therefore it may be required to revert to ground water use which will cause adverse impacts to regional first magnitude springs such as Rainbow Springs and Silver Springs, both of which are powerful economic forces in local economies.

WAR recognizes the order of appearance and priorities associated with the process at hand, but ultimately this is a matter of economic and environmental significance which falls within the purview of NRC. We conclude such issues merit full and proper review.

We note the SWFWMD recommended to FDEP in review of water permitting for plant use that the Applicant be required to examine alternative sources for plant water use. Were the State not required to overcome the obstruction as presented by the proposed CWIS location with processes described in Condition J of the Site Certification, it will likely be less encumbered and therefore more inclined to take action to capture freshwater within the CFBC when needed. Action by the State to restore the Lower River and/or capture water for beneficial use and development will provide the Applicant with a viable alternative to ground water supply for plant use. See **DEIS** Section 7.2.1.2

c. ALTERNATIVES

The NRC has found no objection to the application in general, and labeled most impacts as small. In review of the alternative sites examined by NRC no significant basis for deferring site location to the existing Crystal River Energy Complex was found. (**DEIS 10.7**) In review of this alternative NRC found parity between the COLA and the CREC siting. WAR disagrees with that assessment in context of surface and ground water impacts within NRC's review jurisdiction.

After consideration we find the determination to be based on narrow review of environmental and economic factors and conclude there is reason to consider modification of the Applicant's proposal. The conclusions within the DEIS are generally uniform that impacts from this application will be small in context of surface and ground water impacts. WAR disagrees with this assessment for three reasons. 1) The impacts discussed within this submission are not necessary, and 2) they will not be small. 3) Review by the NRC is incomplete thus the conclusions are premature.

CONCLUSIONS

NRC has published a DEIS and has done so without comprehensive review of water related impacts that will arise during the operational phase of the project life. The DEIS has been apparently formulated prior to determinations by the Army Corps of Engineers related to the Clean Water Act or other Federal Statutes related to water quality and environmental impacts, so far as can be determined. It has reached conclusions based on narrow scope and in possible conflict with NEPA and other Federal Statutes. It has issued findings and recommendations in the DEIS that do not appear based on complete examination of State findings or projects related to the development of water resources. These conflicts are not necessary, nor are the issues at hand of minor importance.

WAR makes recommendation that NRC review the findings of the DEIS in context of concerns expressed in this document and accompanying references and reevaluate its position. We view this project as a long term enterprise and the operational consequences will exist for the life of the plant. Increasing demands on water resources are inevitable and over the life of the plant it will be far cheaper to make the right decisions now rather than correct mistakes later.

RECOMMENDATIONS

1) Relocate the CWIS westward in the CFBC to such location that the State is not obstructed in restoration of the Lower River and will be able to capture fresh water resources and restore the river system as deemed necessary. WAR recommends siting sufficiently west in the CFBC to allow for maximum utilization of fresh water supplies for restoration and a level of beneficial use that after well considered evaluation will limit impacts to the coastal estuaries and related natural systems. Doing so will limit fresh water consumption by diversion due to the plant consumptive use and at such time as the State takes such action, the primary water supply for plant cooling will be sea water rather than freshwater.

Upon such time as the State acts to capture and manage the fresh water component of the CFBC the Applicant will have access to alternative plant water supply and the region will have a surface water supply that may support several hundreds of thousands of residents...which will provide the need projected by Progress Energy Florida, and do so without interfering with rational water management practices.

2) Exercise the alternative option to locate the plant at the Crystal River Energy Complex.

The forgoing submission is supplied with 5 disc copies which contain all references and other documents listed. Copy of this document is provided on the discs as item "A". The references are too voluminous to provide in printed format.

Thank you for your consideration.

Respectfully submitted on 23 September 2010 Plantation Inn @ Crystal River, Fl

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