



# **Alternative Sites Evaluation**

## **Turkey Point Units 6&7**

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**May 22, 2013**

## Agenda

- Introductions
- Overview
- Three topics identified in FPL's April 2 letter
  1. Three inland sites remain reasonable alternatives
  2. Differences between the CWA 404(b)(1) process and the NEPA alternatives review
  3. Paths forward relying on FPL's site selection process
- Questions

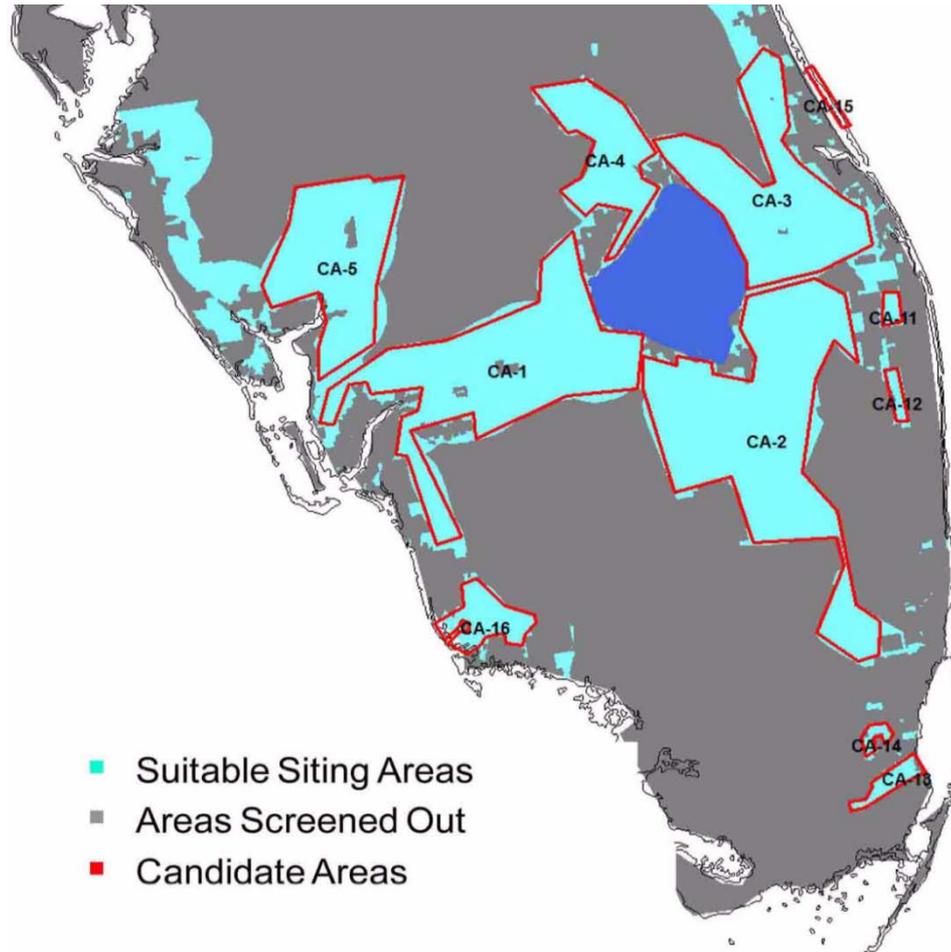
**The information provided in the following presentation is of a preliminary nature and may be subject to change.**

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# Siting nuclear units in peninsular South Florida affects the number of available sites

## Environmental Report Figure 9.3-3 (ROI Regional Screening Results – Southern Service Territory)



**Most suitable siting areas in South Florida are near Lake Okeechobee**

# FPL and NRC consulted with local water regulator about the ability to license water at the alternate sites

## June 29, 2012 Letter to the NRC from the South Florida Water Management District

- “It is important to note that, while surface and ground water availability for the three inland alternative sites may currently be limited, the Restricted Allocation Area rule allows for allocation of water to new projects through several, potential sources...
- ...One example [is] the termination of existing water rights...
- ... alternative water supplies would be viable should any of the alternative sites be considered....
- ...Examples of alternative water supply sources include reclaimed water, storage of excess stormwater runoff in reservoirs, and deep saline aquifers....
- ...Should FPL choose any of these inland sites, there is a path forward for obtaining a reliable and sustainable source of water for cooling water...
- ... there are mechanisms in place through the District's water use regulatory program for FPL to assemble the available, permittable surface and groundwater sources and meet the water needs of the power plant.”

**SFWMD letter confirms the three inland sites remain potentially licensable**



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# **Alternative water scenarios are not “cost-prohibitive” in the NEPA context**

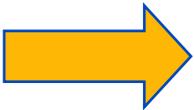
## **Three Inland Sites Remain Reasonable Alternatives**

- **FPL’s draft RAI response discussed multiple factors that are considered in a Clean Water Act (CWA) 404(b)(1) analysis, cost is not the sole determining factor.**
- **FPL’s CWA analysis considered availability, cost, technology, and logistics in light of overall project purpose.**
- **Alternative water scenarios would not render the three inland sites unreasonable under NEPA.**

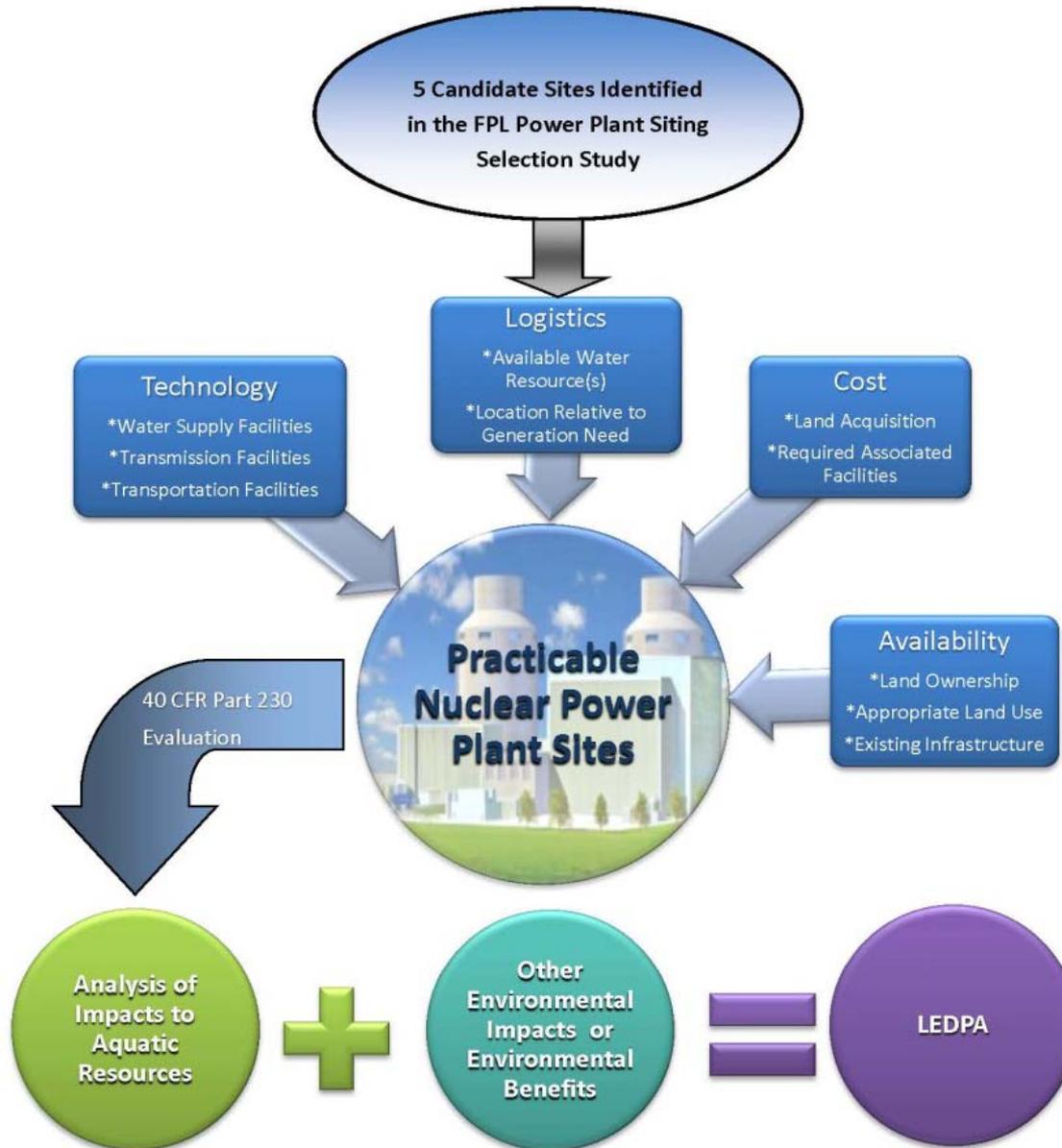
**NRC can continue to consider the three potentially licensable inland sites to be reasonable alternatives**

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# CWA Alternative Analysis Process



# CWA and NEPA Alternatives Can Be Different

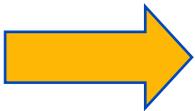
- **EPA's CWA 404(b)(1) implementing regulation specifically allows a broader set of alternatives under NEPA**
  - “On occasion, these NEPA documents may address a broader range of alternatives than required to be considered under [the 404(b)(1) Guidelines].” 40 C.F.R. § 230.10(a)(4)
- **Recent NRC Examples:**
  - Levy County Units 1 & 2
    - Crystal River site deemed not practicable “for business reasons” in applicant’s CWA analysis, but NRC concluded this “falls outside the bounds of the review team’s environmental evaluation” and retained the site as a reasonable alternative in the EIS.
  - Fermi Unit 3
    - Five viable candidate sites in EIS – two practicable sites in applicant’s CWA Analysis
  - Turkey Point Units 6 & 7
    - Five viable candidate sites in ER – two practicable sites in applicant’s CWA Analysis

**Regulation and recent NRC precedent do not require NEPA alternatives to equal the set of practicable alternatives**



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# FPL has identified three paths forward for the alternatives analysis

## Three Paths Forward

- **NRC determines the three inland sites are potentially licensable, reasonable alternatives.**
  - **1** Considers all five candidate sites based on the 2006 and augmented site selection studies and the 2012 draft RAI response water balance scenarios.
- **NRC is not able to determine the three inland sites are reasonable, but:**
  - **2** Determines the three inland sites remain “among the best that can reasonably be found” in the Region of Interest (“ROI”) and considers all five candidate sites; or
  - **3** Proceeds with only two candidate sites (Turkey Point and St. Lucie) because there are no additional reasonable alternative sites to be found in the ROI.

**All three approaches are fully consistent  
with NEPA and NUREG-1555**



**FPL's augmented analysis was robust and provides reasonable assurance that viable sites were not omitted**

## **Existing Evaluation - Background**

- **Site Selection Study and Augmentation Report demonstrate candidate sites are among the best that can reasonably be found (2006 decision time frame).**
- **Augmentation Report includes candidate area screening and search for greenfield sites.**
- **Post-2006, Martin, Glades, and Okeechobee 2 sites affected by regulatory restrictions not in place when site selection was conducted.**
  - These restrictions are considered in FPL's preliminary supplemental evaluation.

**The three inland sites are among the best that can reasonably be found**



**No new sites better than the three inland alternatives to be found because most inland sites will have similar restrictions**

## **Preliminary Supplemental Evaluation**

- **Updated site ranking to account for current water restrictions would not change the candidate sites**
  - Most inland sites would drop in suitability relative to Turkey Point and St. Lucie due to new water restrictions.
  - But Martin, Glades, and Okeechobee 2 would still be selected as candidate sites based on updated ranking because other high-ranking inland sites would have similar water restrictions.
  - Thus, the three inland candidate sites would still be “among the best that can reasonably be found.”
- **Updating site selection study would find no site better than the five current candidate sites within the ROI**

**Water restrictions that negatively impact the three inland candidate sites also impact most high-ranking potential sites**



**If the NRC determines the three inland sites are not viable, it may still review them consistent with NUREG-1555**

## **Five Sites Option**

- **Candidate sites should be “among the best that can reasonably be found”- NUREG-1555**
  - FPL’s supplemental evaluation would demonstrate none of the other potential sites would surpass Martin, Glades, or Okeechobee 2.
- **EIS can continue to consider those three inland sites (together with Turkey Point and St. Lucie) because they meet NUREG-1555 guidance as “among the best that can reasonably be found.”**
  - Similar to NRC evaluation in Fermi Unit 3 EIS - evaluating alternatives that were deemed impracticable in the applicant’s 404(b)(1) alternatives analysis.

**Preliminary supplemental evaluation shows the three inland candidate sites remain among the best that can be found in the ROI**



**If the NRC determines the three inland sites are not viable, it may evaluate only two sites consistent with NUREG-1555**

## **Two Sites Option**

- “[T]here can be no specific criteria for determining that an adequate number of candidate sites have been identified,” but “the reviewer should make such a determination, based on the ROI, the number of candidate areas, and the number and type of alternative sites evaluated by the applicant.” NUREG-1555 (Draft Rev. 1) at 9.3-10.
- EIS can consider only two sites (Turkey Point and St. Lucie) because there are no better options to be found.

**If only two reasonable sites can be found,  
NEPA and NUREG-1555 allow the review  
to include only two sites**

# **FPL is unable to identify any better replacement alternative sites**

## **Conclusion**

- **FPL's three inland sites continue to be viable, potentially licensable, sites.**
  - NRC may evaluate those sites in accordance with NUREG-1555.
- **If the NRC concludes the three inland sites are not viable, it may:**
  - Continue to evaluate them as among the best that can reasonably be found in the ROI; or
  - Evaluate only two sites (Turkey Point and St. Lucie) because no better sites are to be found within the ROI.

**NEPA review can proceed without replacement alternative sites**



# Questions ?