



# **PUBLIC MEETING**



**DRAFT ENVIRONMENTAL IMPACT STATEMENT  
FOR THE LEVY NUCLEAR POWER PLANT  
UNITS 1 AND 2  
COMBINED LICENSE APPLICATION**

Robert Schaaf, Branch Chief  
Douglas Bruner, Environmental Project Manager

# Purposes of this meeting



- Describe the NRC's review process leading up to today.
- Provide the schedule from today forward.
- Share NRC's preliminary recommendation with you.
- Describe how you can provide comments.
- **Listen to and gather your comments.**

# U.S. Nuclear Regulatory Commission

- NRC's mission:
  - Protect public health and safety
  - Promote common defense and security
  - Protect the environment.
- The NRC is an Independent Agency.
- The NRC has over 30 years of experience regulating operating reactors and other civilian uses of nuclear materials.



Source: U.S. NRC



# U.S. Army Corps of Engineers Cooperating Agency Levy Nuclear Plant Units 1 and 2

Don Hambrick  
Senior Project Manager  
Jacksonville District

September 23, 2010



US Army Corps of Engineers  
**BUILDING STRONG**<sup>®</sup>



# U.S. Army Corps of Engineers (USACE) Regulatory Role and Authority

- USACE is the federal agency responsible for administering Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899.
- USACE regulates the discharge of dredged or fill material into all jurisdictional waters of the United States; and dredging and construction of structures in, over and under navigable waters of the United States.
- USACE permit decisions are “federal actions” and must comply with the National Environmental Policy Act (NEPA).
- Proposed projects must also:
  - Comply with the Section 404(b)(1) Guidelines
  - Not be Contrary to the Public Interest (Public Interest Review)



# Cooperating Agency Status

- The Nuclear Regulatory Commission (NRC) is the “Lead Agency” in the preparation of this Environmental Impact Statement (EIS) under NEPA. USACE is a “Cooperating Agency” in the preparation of the EIS.
- USACE’s evaluation and decision whether to issue a Department of the Army permit will be:
  - ▶ Documented in a separate Record of Decision (ROD) no earlier than 30 days after issuance of the Final EIS (FEIS).
  - ▶ The ROD will reference information in the FEIS and present any additional information required by USACE to support its permit decision.



# Proposed Impacts to Waters of the U.S.

- ▶ Units 1 & 2 – Reactor Site Including Admin. Buildings, Parking, Roads  
Wetlands: ~372 acres fill impact
- ▶ Proposed Transmission Lines (~ 180 miles of corridors)  
Wetlands : ~319 acres
- ▶ Blowdown Pipelines  
Wetlands : ~30 acres
- ▶ Barge Slip/Boat Ramp at Cross Florida Barge Canal (CFBC)  
Wetlands: ~1.1 acres
- ▶ Structures in Navigable Waters
  - Cooling Water Intake Structure at CFBC
  - Cooling Water Discharge Structure at the Crystal River Energy Complex Discharge Canal



# Public Participation with USACE

- Public involvement and participation are important to USACE and are critical to preparation of the EIS.
- Comments received at this hearing and in response to the publication of the Draft EIS will be considered in the preparation of the FEIS and USACE's subsequent permit decision.
- Corps Permit Application Number for Levy Nuclear Plant Project: SAJ-2008-00490 (IP-GAH)
- Contact: USACE's Project Manager  
Don Hambrick  
Email: [gordon.a.hambrick@usace.army.mil](mailto:gordon.a.hambrick@usace.army.mil)  
Phone: (850) 763-0717 ext. 25





# Combined License



- Progress Energy Florida applied for combined licenses (COLs) for two new nuclear units (Units 1 and 2) at the Proposed Levy Nuclear Plant Site.
- A combined license gives authorization to construct and operate a new nuclear unit.
- The power plant, if approved, would be built on a greenfield site.
- There are two NRC reviews for the Levy COL application – safety and environmental.



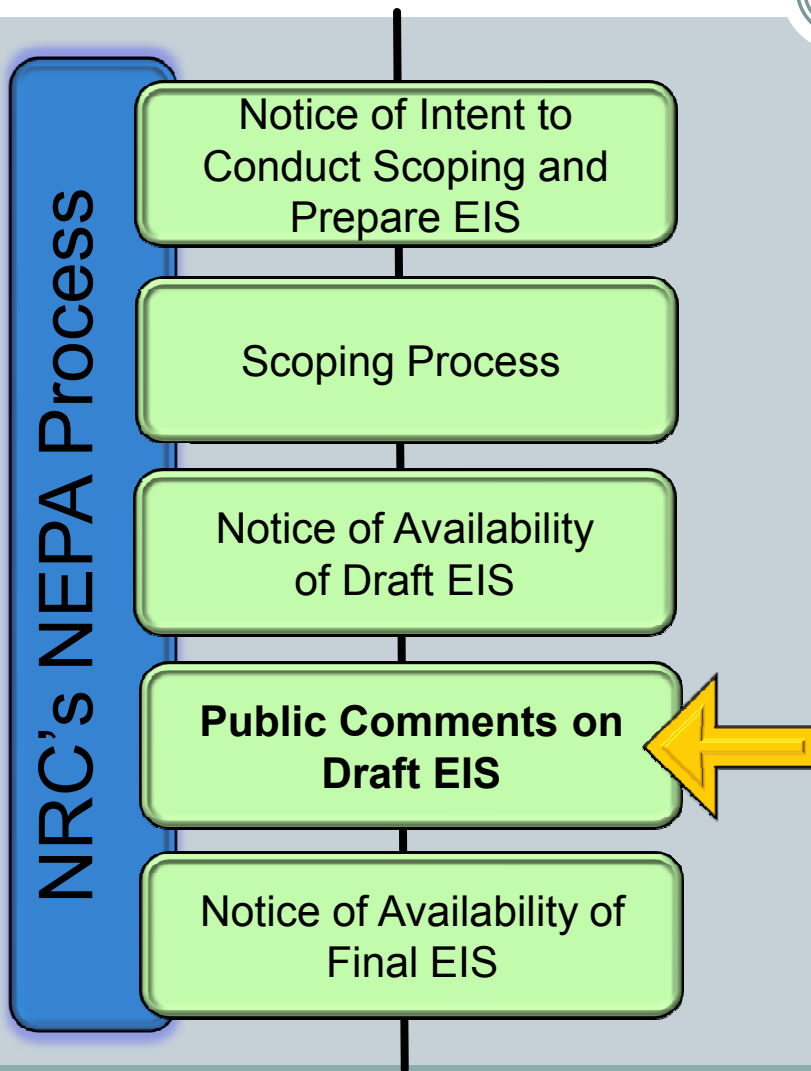
# Environmental Review



- NRC is reviewing the combined license application and is the lead agency.
- U.S. Army Corps of Engineers, Jacksonville District, is reviewing a Corps permit application for the facility and is a cooperating agency on the environmental review and preparation of the EIS.
- The NRC and Corps staff make up the review team.

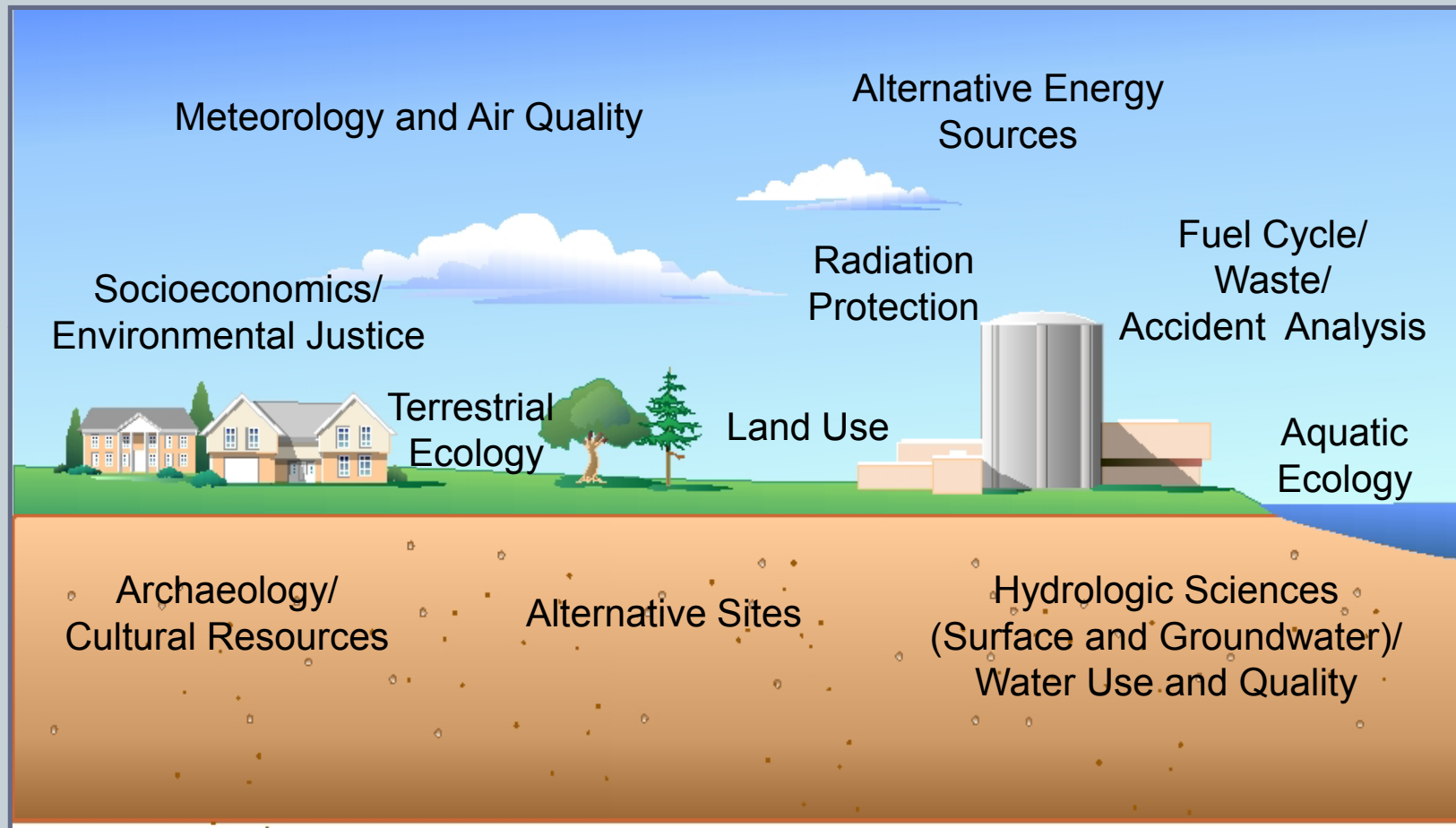


# Review Process & Schedule



- Published *Federal Register* notice in October 2008.
- Scoping period from Oct. 2008 to Dec. 2008; scoping meetings held on December 4, 2008 in Crystal River.
- Published *Federal Register* notice on August 13, 2010.
- **Comment period on Draft EIS is from Aug. 13 to Oct. 27, 2010.**
- Final EIS is scheduled to be published in July 2011.

# Resource Areas



Source U.S. NRC

# How Impacts are Quantified



NRC has established three levels of impact:

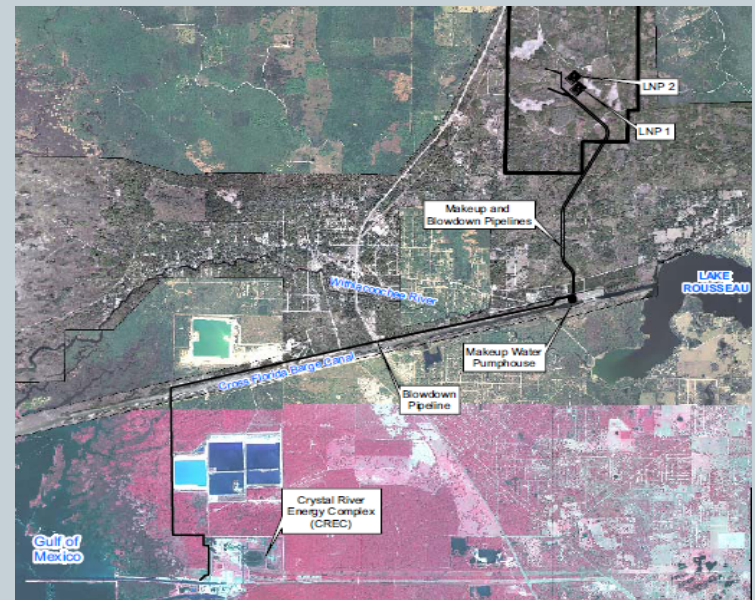
***SMALL:*** Effect is not detectable, or so minor it will neither destabilize nor noticeably alter any important attribute of the resource.

***MODERATE:*** Effect is sufficient to alter noticeably, but not destabilize, important attributes of the resource.

***LARGE:*** Effect is clearly noticeable and sufficient to destabilize important attributes of the resource.

# Water Resources Impacts

- Analysis includes impacts on surface water and groundwater use and quality.
- The review team concludes impacts for use and quality for both surface water and groundwater would be **SMALL** for both building and operation.
- Surface water and groundwater use would comply with permitted conditions.
- Progress Energy would comply with state permit for discharge into the Gulf of Mexico and follow best management practices.



Source: FSAR Figure 2.4.1-202

# Ecological Impacts

- Evaluated impacts on birds, fish, reptiles and amphibians, other wildlife, plants, and wetlands on the Levy site and nearby areas.
- The review team consulted with the Florida Dept. of Environmental Protection, U.S. Fish and Wildlife Service, and National Marine Fisheries Service.
- The review team concluded that impacts for terrestrial ecology would be MODERATE during building and SMALL to MODERATE during operation. Impacts on aquatic ecology would be SMALL.



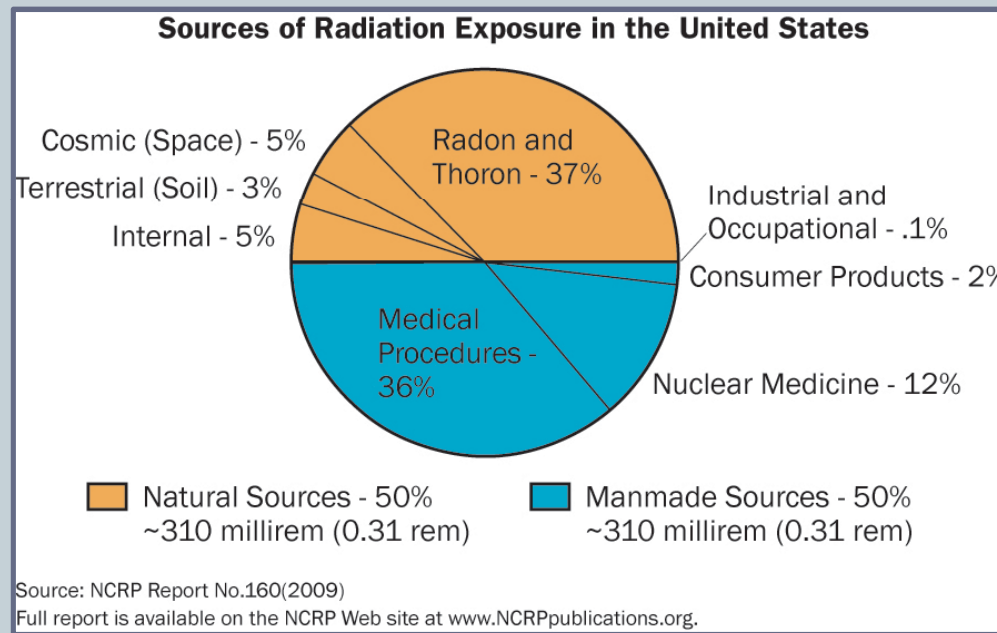
Loggerhead Turtle, *Caretta caretta*  
(Photo by NOAA)



Wood Storks, *Mycteria americana*  
(Photo by P. Doub, NRC)

# Radiological Impacts

- Includes impacts on members of the public, plant workers, and wildlife.



- Doses to workers would be SMALL and below regulatory limits.
- Doses to members of the public from operation would be SMALL and below regulatory limits.
- Doses to wildlife would also be SMALL and below relevant guidelines.



# Socioeconomics and Environmental Justice



- Socioeconomics includes impacts on taxes, housing, education, traffic, aesthetics, and public services.
  - The review team found that adverse impacts would be SMALL to MODERATE for building and operation. Beneficial impacts would be SMALL to MODERATE for building, and SMALL to LARGE for operation, depending on the county.
- Environmental justice review focuses on low-income and minority populations.
  - The staff found no evidence that minority and low-income populations would be disproportionately affected during building or operation of Units 1 and 2.



Source: D. Anderson, PNNL

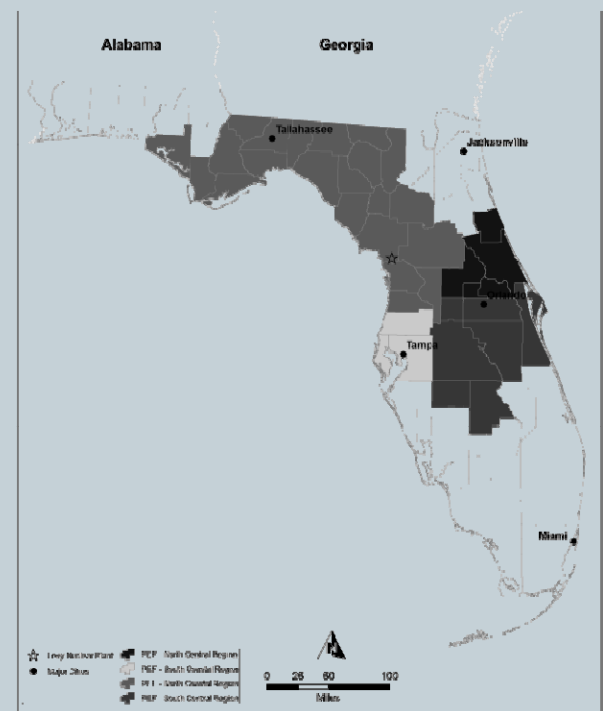
# Cumulative Impacts



- Cumulative impacts include the impacts from the proposed action (Units 1 and 2) with other past, present, and reasonably foreseeable future actions.
  - Examples include:
    - Crystal River Energy Complex Units 1-5
    - Tarmac King Road Limestone Mine
    - Expansion of Suncoast Parkway
- Cumulative adverse impacts ranged from SMALL to MODERATE for most resource areas. Cumulative tax impacts would be mostly beneficial and range from SMALL adverse to LARGE beneficial.

# Need for Power

- Review Team relied upon the Florida Public Service Commission's (FPSC) Final Order granting Progress Energy's petition for a "Determination of Need"
- Review Team determined that the FPSC Order was sufficiently systematic, comprehensive, subject to confirmation, and responsive to forecasting uncertainty that additional independent staff review was not needed.



Source: PEF Ten-year Site Plan

# Alternatives



- **Alternative Energy**

- None of the feasible baseload alternatives would be environmentally preferable.



Source: TVA

- **Alternative Sites**

- The Levy site was compared to 4 alternative sites.
- NRC staff analysis showed none of the alternative sites would be environmentally preferable to the Levy site.



Source: NREL



Source: U.S. DOE

- **Alternative System Designs**

- No alternative cooling system would be environmentally preferable to the proposed design.



Source: U.S. NRC

# Preliminary Recommendation



- The NRC staff's preliminary recommendation to the Commission is that the combined license be issued.
  - The adverse environmental impacts are expected to range from SMALL to MODERATE.
  - None of the feasible alternative energy sources evaluated would be environmentally preferable.
  - The NRC staff determined that none of the alternative sites would be environmentally preferable to the Levy site.

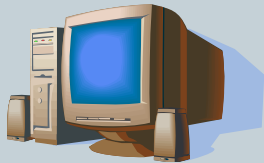
# Access to the Draft EIS



Douglas Bruner

301-415-2730

Douglas.Bruner@nrc.gov



[www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1941](http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1941)



Citrus County Coastal Region Library, Crystal River

Dunnellon Branch Library, Dunnellon

AF Knotts Public Library, Yankeetown

Bronson Public Library, Bronson

# Submitting Comments on Draft EIS



Levy.COLEIS@nrc.gov



<http://www.nrc.gov/public-involve/doc-comment/form.html>



Chief, Rules, Announcements, and Directives Branch (RDB)  
Division of Administrative Services  
Mailstop TWB-05-B01M  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001



Fax to RDB at (301) 492-3446

COMMENTS ARE DUE BY **October 27, 2010**