

**SUBMISSION BY  
BETTY BERGER**

Douglas Bruner, Project Manager  
Environmental Projects Branch 3  
Div. of Site and Environmental Reviews  
Office of New Reactors

Docket Nos. 52-029 and 52-030  
Petitioner Betty Berger's Environmental Report  
September 23, 2010

Subject: Request for comment on the environmental review of the Levy Nuclear Plant Units 1 and 2 combined license application

Comments under Title 10 of the Code of Federal Regulations Part 51 on potential effects and concerns affecting the Public Interests if PEF is permitted to build as planned.

1. The Cross-Florida Barge Canal was stopped at a depth of 12 feet due to concerns of saltwater intrusion into our drinking water. However, it brought saltwater inland from the Gulf a distance of 11 miles. It requires periodic flushing of freshwater from Lake Rousseau to dilute the salt content.

PEF plans to pipe saltwater up the Barge Canal from the Gulf to an area just west of the lock, across Greenways and Trails Recreation Tract 2000-1. There's planned a heavy-haul road crossing Highway #40 and up to their site – a distance of 15 miles. It's understood they plan to use it to wash their cooling towers with it.

Their site is within the Floridan aquifer which SWFWMD states is fed only by rainfall. There's a Hydrologic Divide that prevents aquifer recharge from either surface or ground water. Four public water supplies south of the site depend on that aquifer, plus thousands of private wells. PEF also plans to consume fresh water of an undetermined amount but near 2 million gals/water/day.

There's a high risk of contaminating the aquifer with saltwater by piping it in. A report by Hagemeyer and Stewart called "Resistivity Investigation of Saltwater Intrusion Near a Major Sea-Level Canal". They state "A wedge of saline water is moving landward under and adjacent to the canal. It is unstable suggesting the system has not yet reached equilibrium. Secondly, the sea-level hydraulic heads of the canal have created a site for strong ground-water discharge, promoting upwelling of deeper, highly mineralized water under the canal..

"The Floridan aquifer is Florida's principal source of potable water. The canal was cut into the karstic carbonate rocks that comprise the aquifer. The excavation provides for direct exchange of salty canal water with the shallow portion of the aquifer. It lowered the hydraulic head in the aquifer at the canal to sea level, creating the hydraulic potential for an upward and landward movement of saltwater. The extent of saltwater intrusion around the canal was examined by Faulkner, 1973 who estimated that the construction caused ground-water levels to drop nearly 3 m."

Besides piping saltwater up the Barge Canal PEF plans to barge all of their plant building material up to the lock site and dredge a staging area for unloading. There has never been a barge that made this trip. A half-loaded one named "Aiple" went aground just east of the #19 bridge.

2. PEF has the Crystal River nuclear plant and state "Residents within 10 miles. must be protected from direct radioactive release." They show the area encompassing 10



miles and show the Levy nuclear plants overlapping in the same area. They state the evacuation routes to go south, north and east to escape radiation release. However, Inglis is like the meat in a sandwich. If both sites are affected, there's Crystal River plant in the south, Levy plants in the north, the Gulf on the west and the heavy-haul road preventing escape to the east. The Levy site selected to build nuclear plants could guarantee that no one could escape. If one did, there's the radioactive half-life of several hundred years so there's no return.

3. Under 51.45 Environmental Report.

(3) Alternatives: PEF owns enough land at Crystal River, which is on the Gulf and would not require 15 miles of piping to use that site rather than Levy. Piping could go out into the Gulf far enough so Gulf water heating would not be a problem.

(5) Irreversible commitments of resources would be involved if their plan is implemented, as explained above. Our area of Inglis and Yankeetown could be spared the increased truck traffic and transmission lines now planned. Many homes would be affected as those lines require much space and they affect people living near them. Large trucks emit diesel fumes that are cancer-causing according to EPA, and it takes 500 feet to stop one. Our one stop light in Inglis would mean nothing.

(d) The NRC has not approved the Westinghouse AP-1000 containment building. PEF would pass on the redesign costs to rate-payers at great economic cost. Relocating the plant site would save this cost for our area.

Water laws do not allow industry to affect other users. The threat of saltwater intrusion into our drinking water and the increased usage from the aquifer could affect availability of four public water supplies and many private wells.

4. Under 51.10 Purpose and scope of subpart; application of regulations of Council on Environmental Quality

(a) NEPA directs that laws and policies shall be administered in accordance with policies set forth in NEPA. Inglis is a member of NEPA.

(c) Limitations are imposed on NRC's authority under the NEPA Act and by the Federal Water Pollution Control Act. NRC recognizes that pollutant discharges into receiving waters rests by statute with EPA.

5. Other environmental concerns: (a) Increased use of the Barge Canal will harm the endangered manatees who frequent it, birthing and feeding there. (b) Florida Water Plan 1995 lists several Florida Statutes and Florida Administrative Codes and addresses General Issues, Water Supply, Flood Protection and Floodplain Management, Water Quality, Natural Systems and Coordination and Evaluation. The plan of PEF would violate many of these laws. (c) PEF also violates the Levy County Comprehensive Plan.

Sincerely, Betty Berger, P. O. Box 83, Inglis, FL 34449 [bberger@bellsouth.net](mailto:bberger@bellsouth.net)

Attach: 1. Hydrologic Divide

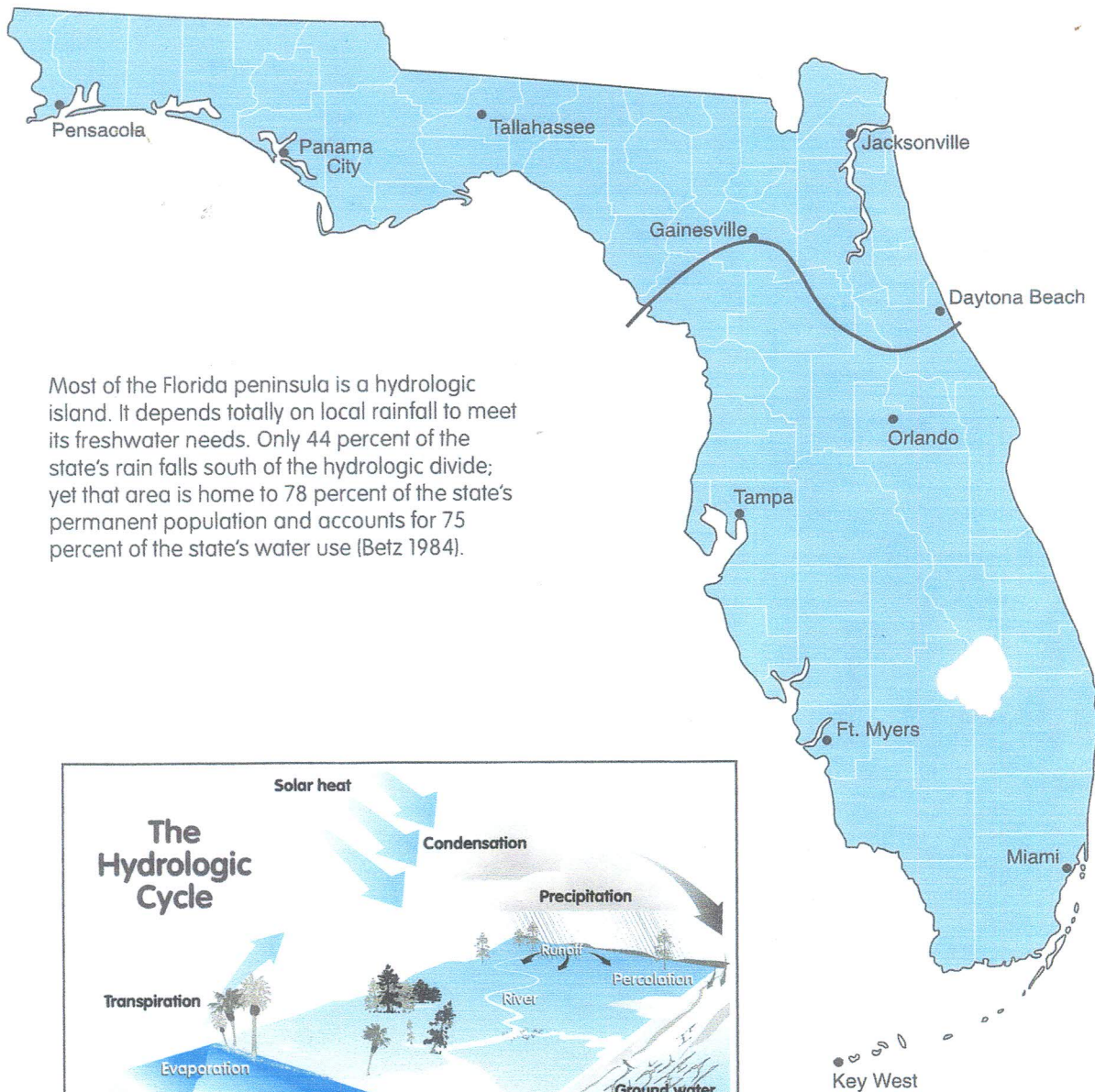
2. PEF map 10 mile radius

3. Development area detail PEF

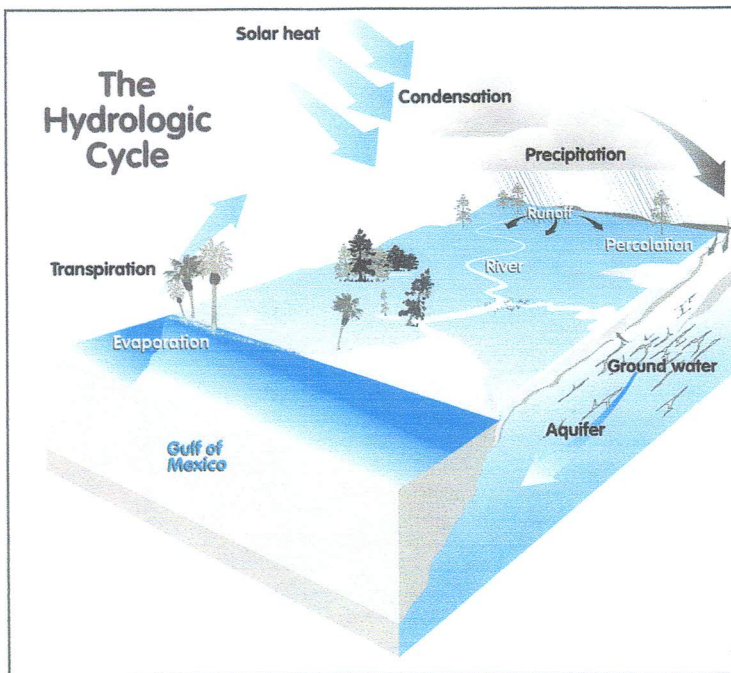
4. PEF site specifics.

5. PEF transmission lines (almost obliterating the Town of Inglis)

## Hydrologic Divide



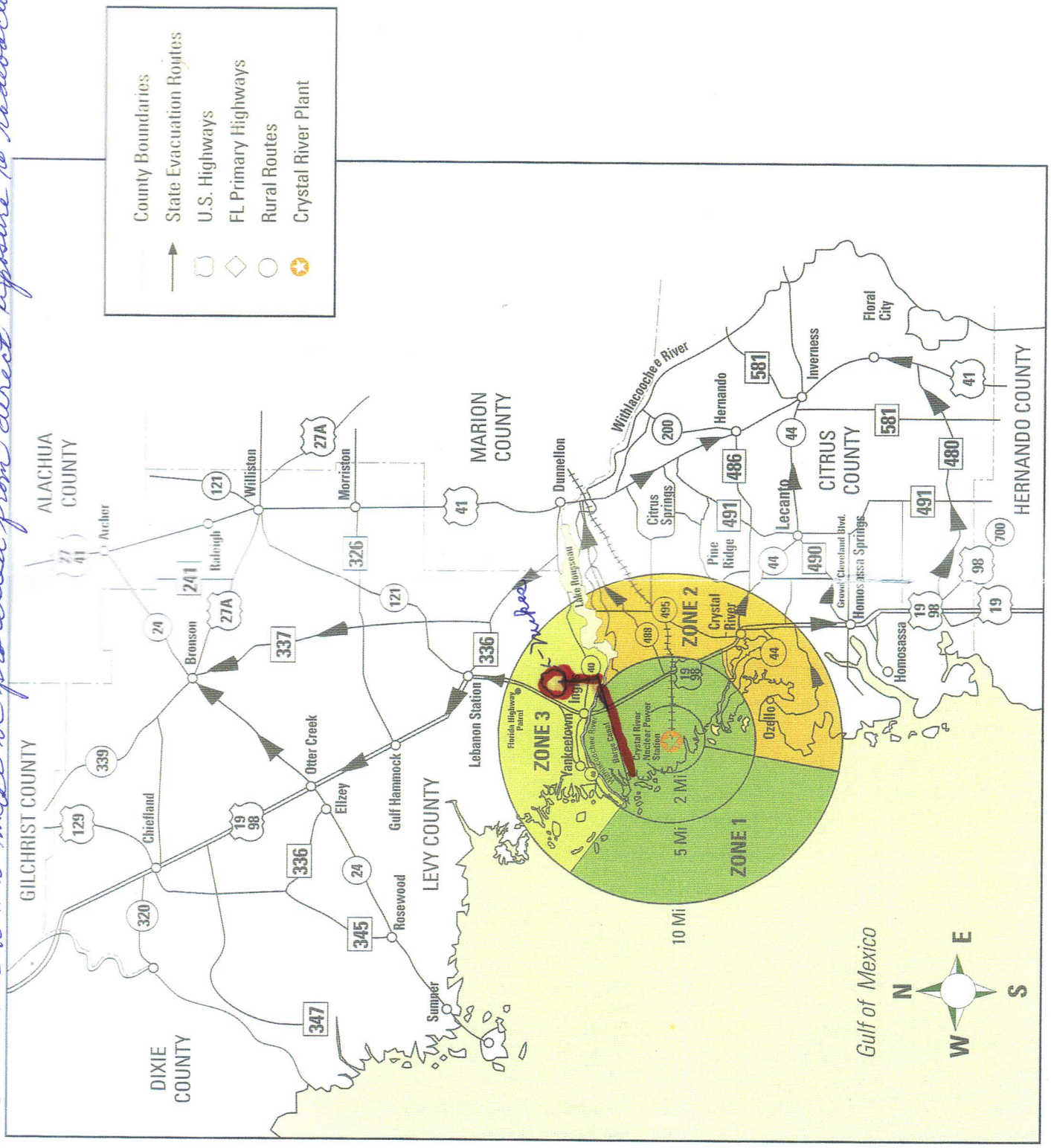
Most of the Florida peninsula is a hydrologic island. It depends totally on local rainfall to meet its freshwater needs. Only 44 percent of the state's rain falls south of the hydrologic divide; yet that area is home to 78 percent of the state's permanent population and accounts for 75 percent of the state's water use (Betz 1984).





control and sample food supplies (milk, seafood, crops, etc.) within the 50-mile zone. Although the 50-mile zone is not shown on the map below, on page 3 for information about the affected area in an emergency situation.

Residents within 10 mi. must be protected from direct exposure to radioactive release



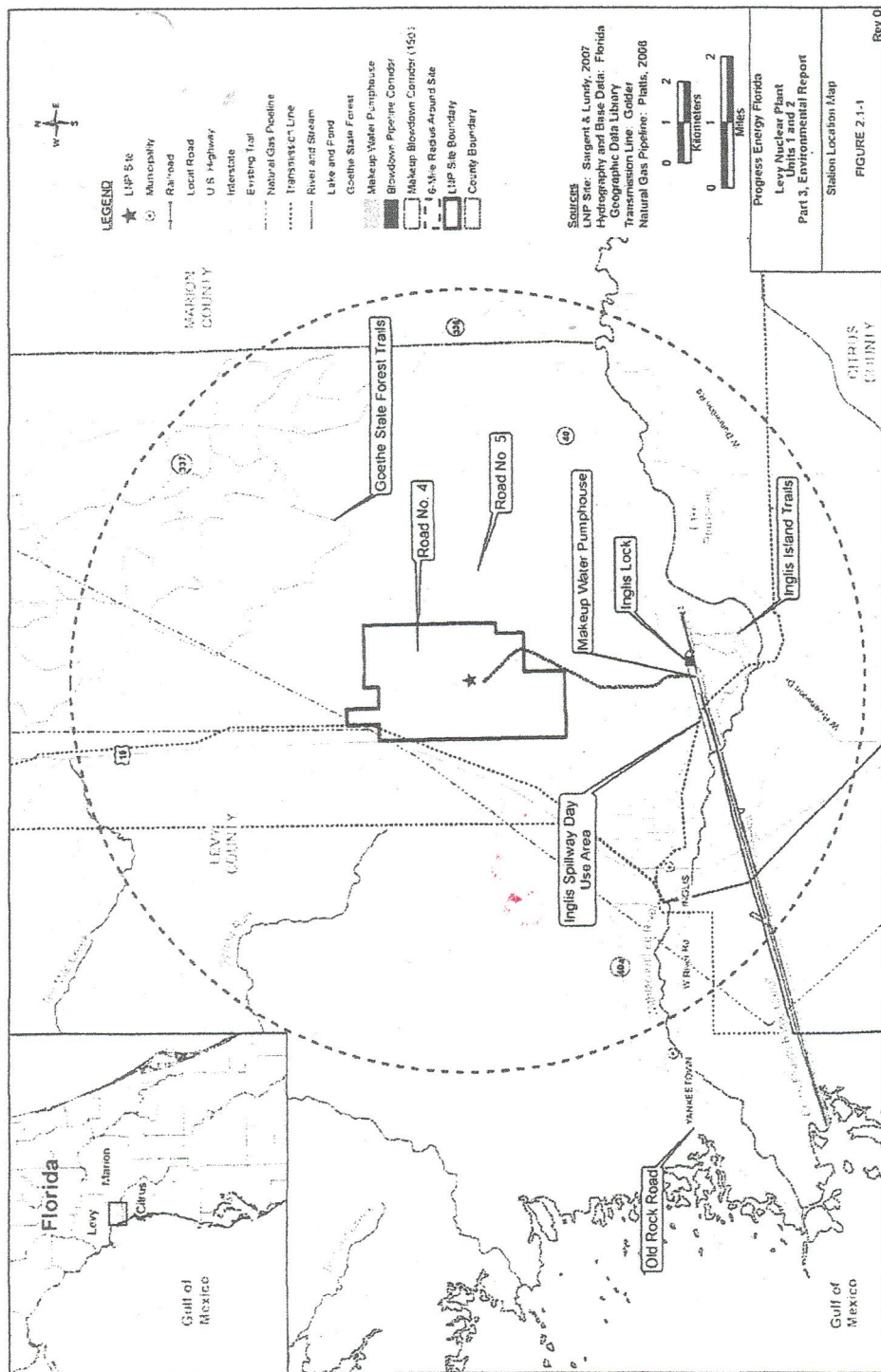
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# Development Area Detail

