



Tropical Audubon Society *The Voice of Conservation in South Florida*

Turkey Point Expansion & Everglades Restoration: Competing Interests

South Florida already struggles to meet water supply demands, yet an application by Florida Power & Light (FPL) to build two new nuclear reactors (6 & 7) would increase water demands by over **90 million gallons a day**. Meanwhile, our federal and state governments are spending an estimated total of **\$22.5 billion** to restore Everglades National Park and Biscayne National Park, and the proposed expansion of Turkey Point directly conflicts with planned restoration projects.

Water Impact

- FPL proposes to place radial collector wells approx. 40 feet below Biscayne Bay Aquatic Preserve, in the upper levels of the Biscayne Aquifer (the Fort Thompson Formation). This depth may be within the "take zone" of the Biscayne Aquifer.
- FPL proposes to inject 40 million gallons a day (MGD) of waste in the boulder zone, a layer of the lower Floridan aquifer. This assumes infinite holding capacity within this layer.
- The Turkey Point expansion would require either approximately 90 MGD of reclaimed water, 124 MGD from its radial wells under Biscayne Bay or a combination of both.

By comparison, the entire Florida Keys uses about 17 MGD.

Everglades Impacts

- the proposed expansion will impact over 800 acres of wetlands. FPL's plan to mitigate this loss is not sufficient.
- At least 3% of the water to be used in the radial collector wells will come from the Biscayne Aquifer. This will result in a reduction of more than 3 million gallons a day of groundwater flow needed to support the flora and fauna of Biscayne Bay. The proposed expansion is in direct conflict with the Biscayne Bay Coastal Wetlands project, the goal of which is to return the bay to less saline conditions.
- The availability of reuse water to meet both the projected needs of FPL to operate the new plant and the needs of the Everglades restoration is questionable. The outcome of a reuse feasibility study is expected in 2011.
- The plan includes construction of transmission lines within the Everglades and along US1.
- FPL's proposed transmission corridors impede upon lands within Everglades National Park and the footprint of BBCW and seek to fill more than 300 acres of wetlands.
- US1 is an important corridor for growth because it is a public transportation route. If growth cannot occur along this corridor, sprawl is more likely to happen.
- The proposed rock mining project, which is planned within the Biscayne Bay Coastal Wetlands footprint (part of Everglades restoration), violates Miami-Dade County's Comprehensive Development Master Plan, interferes with planned restoration projects and could worsen saltwater intrusion and chloride contamination in the Biscayne aquifer-South Florida's primary drinking water supply.
- Planned road expansions would block water flow to wetlands within Comprehensive Everglades Restoration Plan and compartmentalize the areas to be used in wetland rehydration.
- Releasing 30 MGD of steam from the reactor cooling process into the atmosphere (known as aerosol drift) has potentially damaging implications for local climate, wildlife and wildlife habitat, Biscayne Bay and locally grown food.
- The Turkey Point property is a known habitat for endangered or threatened species such as indigo snakes, Florida panther, wood storks and roseate spoonbills and is critical habitat for the American crocodile. Contaminant loading into the Cooling Canal System and loss of habitat through plant operation and construction may negatively impact these species.

Tropical Audubon Society Proposed Turkey Point Solutions

First Proposed July 2, 2012

- Eliminate the radial collector wells proposed and, as an alternative water supply if one is truly needed, work with the county to improve reliability of their wastewater supply stream or propose another form of alternate water supply such as the Floridan aquifer or a reservoir. Help stop Ocean Outfall in Miami-Dade County.
- Eliminate transmission corridors within Everglades National Park including the so called "exchange corridor" by working with DEP to identify a substitute corridor that is located entirely outside the national park's current boundaries and design and construct it so that there are no impacts to species such as wood storks and snail kites.
- Phase out the use of the cooling canal system or CCS and replace units 3 and 4 with 6 and 7, since the CCS is not a closed system it will only continue to concentrate salts and exacerbate the saltwater plume, damaging BNP and the well fields to the west.
- Bring to the area as much water (through wastewater reuse or some other means) as the entire Turkey Point operations (current and future) will consume and clean it up to a sufficient level for application to the surrounding area including the wetlands to mitigate power plant operations including the current cooling canal problems identified by the water management district and county
- Eliminate the construction access roads in the south Miami-Dade wetlands by developing other less impacting ways to move construction crews and dump trucks.
- Eliminate impacts to high quality wetlands, in particular the location of the water treatment plant for the county's waste water, by finding a new location that does not impact these wetlands.
- Improve the mitigation plan to fully mitigate impacts and make it facilitate CERP as FPL's vast land holdings in the region are fundamental to the CERP restoration project in south Miami-Dade.
- Protect and improve wading and shorebird habitat, by providing clean freshwater to add to the nearshore areas of Biscayne Bay. Coastal Marshes provide some of the best stopover habitat for migrants as they move through Florida, and this habitat is largely missing from the landscape. The hypersaline nature of the area due to dwindling FW inputs and lack of dry season flows can be reversed with a steady reliable clean source of FW during the dry season.
- Mitigate for tree canopy and the other impacts from transmission lines, create a perpetual funding mechanism to plant native canopy in public places throughout the county. Work with TAS to use trees that support Migratory Song Birds, and help create an Urban Oasis for wildlife.