Supplemental Assessment to the *Tamiami Trail Modifications: Next Steps* EIS for Lincoln Financial Media and Salem Communications: Radio Tower Facilities Located in the East Everglades Expansion Area of Everglades National Park

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Everglades and Dry Tortugas National Parks

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1. Purpose and Need for Supplemental Assessment

The purpose of this supplemental assessment is to determine whether the Salem Communications and Lincoln Financial Media radio towers located in the park are compatible with the stated purposes of the *East Everglades Protection and Expansion Act* of 1989. Specific accommodations were made in the 1989 Act (Public Law 101-229) to allow for commercial airboat facilities to remain in Everglades National Park following acquisition of the expansion lands. The National Park Service (NPS) is in the process of completing a General Management Plan (GMP) and associated Environmental Impact Statement (EIS) for the area outlining the conditions under which these commercial entities will continue to provide important visitor services following acquisition of the airboat facilities. While no provisions analogous to those made for the commercial airboat facilities were made in the 1989 Act for the two commercial radio towers located on the acquired park lands, the NPS did acknowledge the need to address specific issues associated with their "intrusion on park resources" prior to acquisition when the NPS released the 1991 *Land Protection Plan: East Everglades Addition, Everglades National Park* (LPP) and the associated Environmental Assessment (EA) and Finding of No Significant Impact (FONSI). This need was also reiterated in the 2010 Final Environmental Impact Statement (FEIS) for the *Tamiami Trail Modifications: Next Steps* (TTM: NS) project in which the NPS agreed to complete a supplemental assessment prior to acquisition of the radio towers to determine whether or not the radio towers are compatible with the stated purposes of the East Everglades addition. This supplemental assessment, presented here, responds to specific language contained in the 1991 LPP EA and the 2010 TTM: NS EIS. Specifically, the LPP states:

> *"At present, two AM radio antenna fields exist along the U.S. 41 (Tamiami Trail), consisting of multiple antenna arrays several hundred feet in height. Before acquisition is initiated, an assessment will be completed to address issues such as intrusion on park resources, impact upon wetlands and the GDM* [General Design Memorandum] *implementation which will increase hydroperiod in the Shark Slough, frequency and location authorizations granted by the Federal Communications Commission (FCC), and aesthetic intrusion."* (NPS, 1991)

Similarly, the TTM: NS EIS states:

> *"The supplemental assessment will include evaluations of the potential for flood protection for the radio tower facilities, the potential impacts due to the operation of flood protection facilities on the water quality and water quantity, and any impacts of these facilities on existing wetlands and other impacts such as the effects on the viewshed. The physical improvements needed to provide flood protection for the commercial radio towers will also be evaluated as to compatible versus incompatible use as described above and further evaluated to ensure that these improvements are consistent with the dredge and fill requirements also specified in the 1991 Land Protection Plan and Environmental Assessment."*

Consistent with the 1991 LPP EA and the 2010 TTM: NS EIS, the NPS has completed this supplemental assessment of the above issues prior to acquisition of these lands and also prior to the implementation of any roadway modifications associated with the TTM: NS project.

2. Background

The *East Everglades Protection and Expansion Act* of 1989 (Public Law 101-229), authorized by Congress on December 13, 1989, articulates that Everglades National Park is both nationally and internationally significant and that the park has been adversely affected, and continues to be adversely affected, by external factors which have altered the ecosystem including the natural hydrologic conditions within the park. Additionally, the legislation identified that portion of the Northeast Shark River Slough (NESRS), 107,600 acres, which lies within the area Congress added to the park (East Everglades Expansion Area) as vital to long-term protection of the park and restoration of natural hydrologic conditions within the park. This restoration action will halt the deterioration of park wildlife resources and their associated habitats which have been adversely impacted by the alteration of natural hydrologic conditions within the park.

The purposes of Public Law 101-229 are two-fold and all land protection actions must be responsive to this Congressional direction:

> *"To increase the level of protection of the outstanding natural values of Everglades National Park and to enhance and restore the ecological values, natural hydrologic conditions, and public enjoyment of such area by adding the area commonly known as the Northeast Shark River Slough and the East Everglades to Everglades National Park; and,*
>
> *"Assure that the park is managed in order to maintain the natural abundance, diversity, and ecological integrity of native plants and animals, as well as the behavior of native animals, as a part of their ecosystem."*

In addition, Public Law 101-229 authorizes and directs the U. S. Army Corps of Engineers (USACOE) "to construct modifications to the Central and Southern Florida Project to improve water deliveries into the park and shall, to the extent practicable, take steps to restore the natural hydrological conditions within the park." This effort has been identified as *The Modified Water Deliveries to Everglades National Park* project (MWD).

In May 1982, the Department of the Interior published in the Federal Register a policy statement for use of the federal portion of the Land and Water Conservation Fund. In response to this policy, the NPS prepared a LPP and EA in 1991 for the East Everglades Addition of Everglades National Park. The purpose of the LPP was to identify land protection alternatives to assure the restoration and enhancement of the Everglades ecosystem in the addition and existing park, to restore natural hydrologic conditions, and to provide for appropriate administrative facilities and visitor use. The plan was prepared in compliance with relevant legislation, other Congressional guidelines, executive orders, and Department of the Interior and NPS policies. The major issues addressed in this plan and its EA included: setting priorities for protection and acquisition, defining compatible and incompatible uses within the addition, public and administrative access to important resources, and the protection of wetlands and wetland ecosystems.

The LPP and EA concluded that "the East Everglades addition represents an area to be protected and managed for enhancement and restoration of ecological values (including the restoration and management of endangered species habitat), the restoration of natural

hydrologic conditions (which will extend the hydroperiod on these lands), and the provision for appropriate public enjoyment; therefore, private uses of the addition that would perpetuate these values and are consistent with laws applicable to the National Park System would be compatible with addition purposes. Activities that would disturb the ecology, interfere with the restored hydrologic system, or prevent public enjoyment of the addition would be incompatible. Residential, commercial or industrial construction or agricultural activities would not be compatible with the park and this addition. Major additions to existing developments or agricultural activities, as well as the construction of utility lines and roads, also would not be compatible" (LPP 1991).

The LPP also concluded that hunting and off-road vehicle use (e.g., airboats, all-terrain vehicles and 4-wheel drive motor vehicles), except as authorized in the enabling legislation, were not compatible with the purposes of the addition. Basically, any activity that would alter the ecological values and integrity of the wildlife habitat, or the restored hydrology, would not be compatible. Compatible private uses in the addition are those that would not alter the natural resources. These would include recreational fishing, hiking, and passive recreational activities, such as bird watching and nature photography.

In addition, the LPP determined that any commercial activities in this area of the park would not be compatible with park purposes, except for those facilities and operations that are concessions under contract or permit pursuant to the Concessions Policy Act. Accordingly, all existing commercial properties should be acquired by the Federal government and be subject to the rules and regulations of the National Park Service. However, the LPP identified the need for certain properties located within the addition to undergo an assessment prior to acquisition, including two radio towers (Figure 1). The LPP states "The effects of these structures and associated facilities are unclear and their identification as compatible/incompatible will depend upon an assessment of these sites to determine their intrusion upon park resources, impact upon wetlands, and the GDM implementation which will increase hydroperiod in the Shark Slough, and consistency with the enhancement and restoration goals articulated by Public Law 101-229."

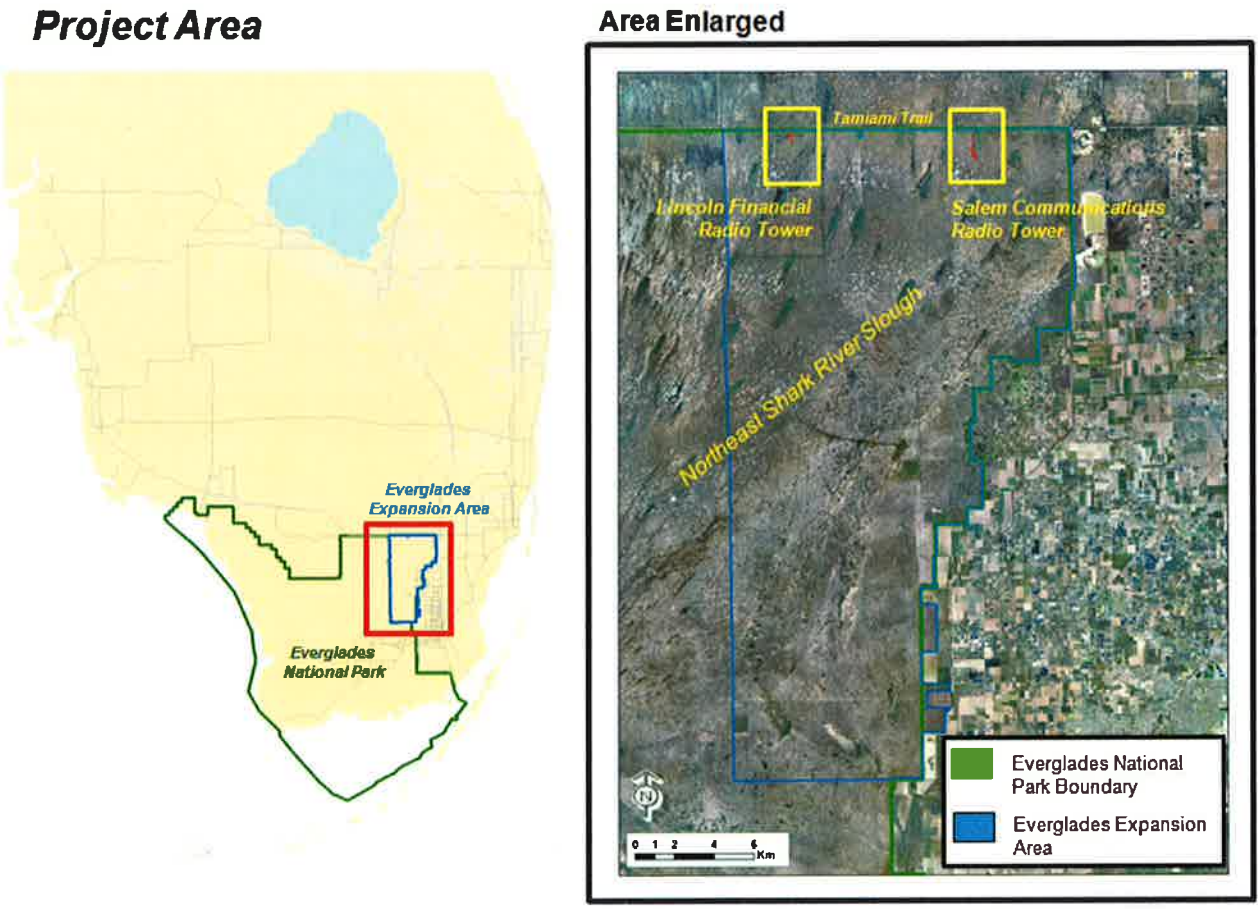

Figure 1. Project Area

The *East Everglades Protection and Expansion Act* of 1989 authorized the USACOE to take actions to restore the hydrology and ecological conditions, to the extent practical, in the Expansion Area of Everglades National Park. Associated federal actions that followed this authorization include the 1992 GDM, 2003 General Reevaluation Report and Supplemental Environmental Impact Statement, 2005 Revised General Reevaluation Report and Second Supplemental Environmental Impact Statement, and 2008 Limited Reevaluation Report (LRR).

On March 10, 2009, Congress enacted the Omnibus Appropriations Act that directed the NPS to evaluate bridging alternatives to the Tamiami Trail (10.7-mile eastern section), beyond the bridge length authorized by the 2008 Limited Reevaluation Report (LRR) in order to "restore more natural water flow to Everglades National Park (ENP) and Florida Bay and for the purpose of restoring habitat within the Park and the ecological connectivity between the Park and the Water Conservation Areas." The 2009 Omnibus Act also directed the USACOE to immediately construct the 2008 LRR and EA which included construction of a 1-mile bridge and elevating the remaining road to allow stages in the L-29 Canal to be raised from 7.5 feet to 8.5 ft. The decision to conduct the 2008 LRR was precipitated by the fact that the recommended plan in the 2005 Revised General Reevaluation Report and EIS, 3-miles of bridging and remaining road raised to allow stages in the L-29 Canal to be raised

to 9.7 feet, was prohibitively expensive at that time, even though the 2005 plan would substantially improve flows to and environmental conditions in Everglades National Park.

While each of these previously planned efforts required modifications to the Tamiami Trail, the 2009 Omnibus Appropriations Act established well-defined ecological restoration targets associated with these modifications, including restoration of ecological connectivity between marshes severed by the road and restoration of natural marsh flow patterns. Passage of the 2009 Omnibus Act was an acknowledgement that construction of the 1-mile bridge with only a 1-foot road elevation would be insufficient to meet the restoration objectives of the 1989 Act and it directed the NPS to complete a report to Congress in 2010 that identified additional modifications to the Tamiami Trail (e.g., bridging and road-raising) required to fully restore the ecological conditions in NESRS and establish the foundation for future restoration efforts in the Everglades. Based on provisions in the 2009 Act, the NPS completed the TTM: NS EIS in December, 2010. The TTM: NS project would modify the road to allow for future unconstrained flow into Everglades National Park following restoration. Importantly, the TTM: NS EIS recommended plan, Alternative 6E, would meet the structural roadbed requirements for fully restored water depths and hydroperiods in NESRS (9.7 feet design high water elevation in the L-29 Canal), precluding the need for expensive future modifications to the Tamiami Trail when related projects that store and distribute the water required for full restoration are implemented. On December 23, 2011, Congress passed the Consolidated Appropriations Act of 2012 (Public Law 112-74) which authorized construction of the TTM: NS project. In addition, with the Act's passage, Congress appropriated $25 million for land acquisition to acquire the remaining un-acquired private commercial properties in NESRS.

3. Documents and Legislation Pertinent to Supplemental Assessment

- *Public Law 101-229—Everglades National Park Protection and Expansion Act (1989)*
- *Land Protection Plan Environmental Assessment, East Everglades Addition, Everglades National Park* (1991)
- *Tamiami Trail Modifications: Next Steps Project: Final Environmental Impact Statement* (2010)

4. Land Protection Issues Evaluated in Supplemental Assessment

In order to determine whether or not the Salem Communications and Lincoln Financial Media radio towers located in the park are compatible with the stated purposes of the East Everglades addition, the following land protection issues were evaluated in this supplement to the TTM: NS EIS:

A. Intrusion on Everglades National Park Environmental Resources: Specific analyses of disturbances to the natural resources due to existing and any proposed additions to the aforementioned radio tower facilities include:

- Impacts to avifauna in NESRS due to the existing and proposed radio tower facilities
- Impacts of radio tower facilities on endangered Wood Stork populations or habitat
- Impacts of the introduction and spread of non-native species due the presence of the existing or modified facilities
- Impacts on wetlands - specific analyses of wetland alterations required to maintain existing facilities or any proposed additional facilities, including:
  - Evaluation of wetland impacts in NESRS due to future flood mitigation requirements for both the Salem Communications and Lincoln Financial Media sites
  - Evaluation of potential changes in water quality due to any mitigation activities associated with modifications to the radio tower facilities

B. Impacts on GDM implementation: Potential Hydrological Impacts of Radio Towers on Everglades National Park Environmental Resources: Specific analyses of the ability of existing and proposed facilities to promote (or detract from) attainment of the long-term restoration objectives for NESRS contained in the 1992 GDM and incorporated in the *Tamiami Trail Modifications: Next Steps* EIS, including:

- Evaluation of the current radio tower facilities in relation to projected water level conditions following the implementation of the 2010 TTM: NS project

C. Impacts of the Frequency and Location Authorizations Granted by the Federal Communications Facility and/or Modifications Needed to Continue Broadcasting Under Existing FCC Licenses includes:

- Evaluation of the effects of increases in water levels in NESRS associated with restoration objectives contained in the *Tamiami Trail Modifications: Next Steps* EIS on signal broadcast

D. Impacts of the Two Radio Towers on the Visual Enjoyment of Park Resources, i.e., Viewshed or Effects of Aesthetic Intrusion

5. Analyses of Land Protection Issues

A. Intrusion on Everglades National Park Environmental Resources

In 2009, the USACOE contracted the firm of Bergmann & Associates to evaluate the most efficient and cost-effective flood protection measures that would allow for the two radio tower facilities owned and operated by Lincoln Financial Media and Salem Communications to continue to remain and operate in NESRS, if funds for acquisition of these lands were not forthcoming and it was determined that their continued operations in the park would not adversely impact park resources. Based on the *Letter Report* prepared by Bergmann & Associates (2009), providing flood mitigation to the two radio tower properties to allow for higher water levels in NESRS associated with the *Tamiami Trail Modifications: Next Steps* EIS would require filling of 94.2 acres of freshwater wetlands (Table 1) surrounding the radio towers infrastructures (51.4 acres for Salem Communications and 42.8 acres for Lincoln Financial Media). The wetlands within this region are characterized as a mixed

graminoid/hardwood marsh community dominated by native vegetation that transition into a sawgrass-dominated marsh. From previous regulatory wetland assessments conducted within NESRS, the wetlands within this region rank high in terms of their landscape value, wildlife habitat, and hydrology.

Table 1. Wetland Impacts Radio Towers Supplemental Assessment Flood Protection Alternatives Wetland Area Required for Implementation (Acres)

	Berm	Buffer	Concrete Wall	Radio Complex	Road	Total
Salem						
Alternative 1	0.3	7.5	N/A	14.3	1.0	23.1
Alternative 2	0.4	3.0	N/A	47.7	0.8	51.9
Alternative 3	0.3	7.5	N/A	6.0	1.4	15.2
Alternative 4*	0.4	8.6	N/A	41.5	0.9	51.4
Alternative 5	0.2	5.9	0.8	29.4	1.3	37.6
Lincoln						
Alternative 1	0.2	4.6	N/A	13.3	0.4	18.5
Alternative 2	0.2	0.4	N/A	36.9	0.2	37.7
Alternative 3	0.1	4.0	N/A	1.2	1.0	6.3
Alternative 4*	0.3	5.9	N/A	36.3	0.3	42.8
Alternative 5	0.2	2.5	0.8	22.3	0.3	26.1

*Preferred Alternative (COE, ENP, LAPO)

The filling of these 94.2 acres of wetlands would have direct and indirect impacts on Everglades National Park environmental resources, including aquatic fauna and wildlife that breed, forage, and roost within this habitat. Aquatic productivity is known to be affected by hydrological conditions. Densities of prey-sized fish populations are known to be affected by the number of dry-down days, with productivity generally increasing as the number of dry-down events decrease. Filling of wetlands surrounding the radio towers, as needed to mitigate for the higher water levels in NESRS associated with the TTM: NS authorized plan, would result in altered hydrological conditions that would negatively affect aquatic productivity. While the effects would be localized, aquatic resources within this region would be negatively affected. This is of importance because these areas that would be affected by the wetland filling activities provide viable wading bird breeding and foraging habitat.

The Salem Communications radio tower facility is located west of the Tamiami West wading bird colony (Figure 2) and is directly adjacent to the northern portion of the core nesting area.

Importantly, the Tamiami West colony is one of the most prolific breeding colonies of the endangered Wood Stork in the Everglades ecosystem. Tamiami West is also a prolific White Ibis colony; the White Ibis is a state-listed species. Other state-listed species that nest in the Tamiami colony include the Snowy Egret, Little Blue Heron, Great Blue Heron, and the Black-crowned Night Heron. Wading birds are known to preferentially forage in areas surrounding their colony sites. For example, the Wood Stork is known to forage in areas within approximately 23.4 kilometers from their colony sites in Everglades National Park (Herring and Gawlik, 2011). Both the Salem Communications and Lincoln Financial Media properties are within the foraging radius of all birds that breed within the Tamiami West Colony. The flood mitigation needed for these properties associated with implementation of the TTM: NS EIS would require filling of wetlands within the foraging radius of all wading bird species that nest within the Tamiami Colony. Filling of wetlands and altering the hydrology within Wood Stork management zones is in conflict with the U.S. Fish and Wildlife Service 2006 Draft Habitat Management Guidelines for the Wood Stork in the Southeastern United States. The guidelines were developed to help protect the Wood Stork breeding, foraging, and roosting habitats. The Salem Communications radio tower property is located within the endangered Wood Stork primary and secondary management zones as designated by the U.S. Fish and Wildlife Service.

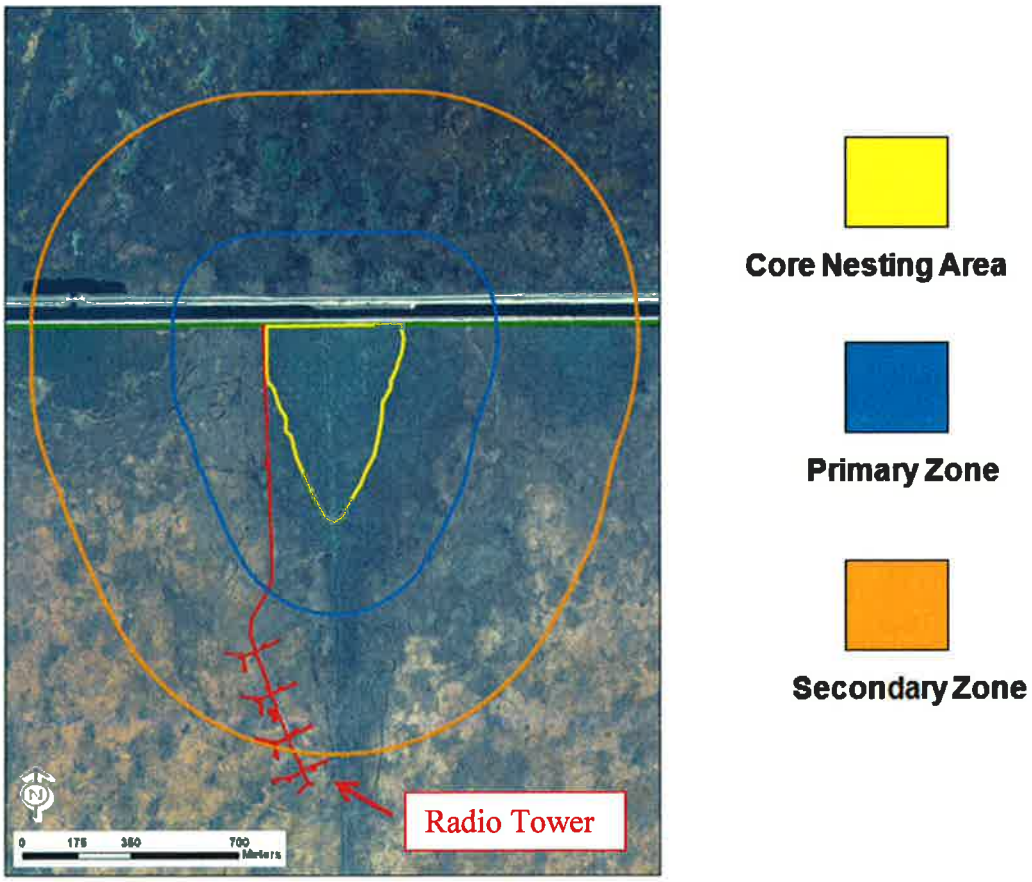

Figure 2. Salem Communications Radio Tower: Proximity to Wood Stork Colony.

Filling and dredging of wetlands for flood mitigation at both the Lincoln Financial Media and Salem Communications sites are anticipated to cause elevated total suspended solids and nutrients such as phosphorus within the localized area of impact. This could impact wildlife

such as aquatic fauna and predators such as alligators and wading birds preying upon the aquatic fauna. While the water quality effects would likely be localized and temporary, the wetland filling would permanently affect wildlife in the region that relies upon the wetlands for breeding and foraging habitat.

Filling the wetlands surrounding the radio tower infrastructures would result in increased habitat fragmentation within this region. Wildlife will be impacted by this activity as fragmentation is one of the lead causes known to affect wildlife populations. Fragmentation results in a reduction in dispersal capabilities and generally impacts wildlife by increasing time necessary for performing life functions such as finding breeding, foraging, and shelter habitats.

Filling the wetlands surrounding the radio towers infrastructures is anticipated to provide habitat for invasive animal and plant species such as Brazilian pepper. Altered soil and hydrological conditions are known to cause proliferations and spread of exotic animal and plant species. The Brazilian pepper is an invasive exotic species known to occur within this part of NESRS and proliferates on soil elevations above natural grade in this region. Thus, the berms that would surround the radio towers, should this area be mitigated, would provide habitat for invasive plant as well as invasive animal species such as Burmese pythons. Burmese pythons are known to occur within NESRS and would likely proliferate on the artificially created berms that would surround these radio facilities. Proliferation of Burmese pythons would negatively impact native wildlife within the region and would be of special concern considering the location berms required to protect the Salem Communications tower would be adjacent to the Tamiami West colony of the endangered Wood Stork.

B. Impacts on GDM Implementation: Potential Hydrological Impacts of Radio Towers to Park Environmental Resources, including Impacts of Section 404 Clean Water Act Requirements

Consistent with the purposes of the 1992 GDM, the *Tamiami Trail Modifications: Next Steps* project would raise and bridge the Tamiami Trail to allow for natural water stages and flow patterns that would not require operational controls. The USACOE instructed Bergmann & Associates in their *Letter Report* to evaluate how to flood protect these two facilities under potential flow patterns and water levels following implementation of the *Tamiami Trail Modifications: Next Steps* EIS. Thus, the *Letter Report* investigated flood protection alternatives that, "at a minimum, provide for a design high water elevation of 9.7 feet in the L-29 Canal with an equivalent 100-year flood elevation of 10.1 feet." The *Letter Report* determined that earthen berms for flood protection would have to have a top elevation of 12.1 feet, providing a minimum of 2.0 feet of freeboard over the 100-year flood elevation. During a 100-year flood event with water elevations at 10.1 feet, wave action could cause flood water to overtop the proposed berm at elevation 12.1 feet. In this case, the proposed cure alternative would provide protection for existing facilities by providing a sump drainage collection area for any flood waters accumulated from berm overtopping and direct rainfall (*Letter Report*, Bergmann & Associates 2009).

Since there would be no operational constraints associated with flood protection of the radio tower facilities, the hydrologic impacts would primarily be direct loss of wetlands associated with construction of berms around the facilities. A berm of imported fill completely

encircling each radio tower facility, with a top elevation of 2.0 feet above the 100-year flood stage, is required to provide the desired level of protection. Figures 3 and 4 show the footprint of the preferred alternatives for the Lincoln Financial Media and Salem Communications radio towers, respectively, if flood protection of the facilities is provided. Areas adjacent to the existing facilities that now are marsh would be within the area protected by berms, effectively isolating these areas from the marsh, resulting in a substantial area that cannot be restored to natural hydrologic conditions. Discharge from the radio tower sump pumps into the marsh outside of the berms could also create additional areas of disturbance within the natural areas of the marsh. Flood protected radio towers would interfere with restoration of the natural hydrologic system, and, therefore, would be incompatible with the LPP EA/FONSI and the hydrological restoration objectives contained in the *Tamiami Trail Modifications: Next Steps* EIS.

In addition, berms constructed to protect the radio towers would direct flow around the radio tower facilities, preventing restoration of the ridge and slough landscape near both radio tower locations. However, due to the slow flow velocities in the Everglades wetlands and the generally north-south orientation of the radio tower facilities, there may not be significant alteration of flow patterns beyond the footprint of the radio tower flood protection features.

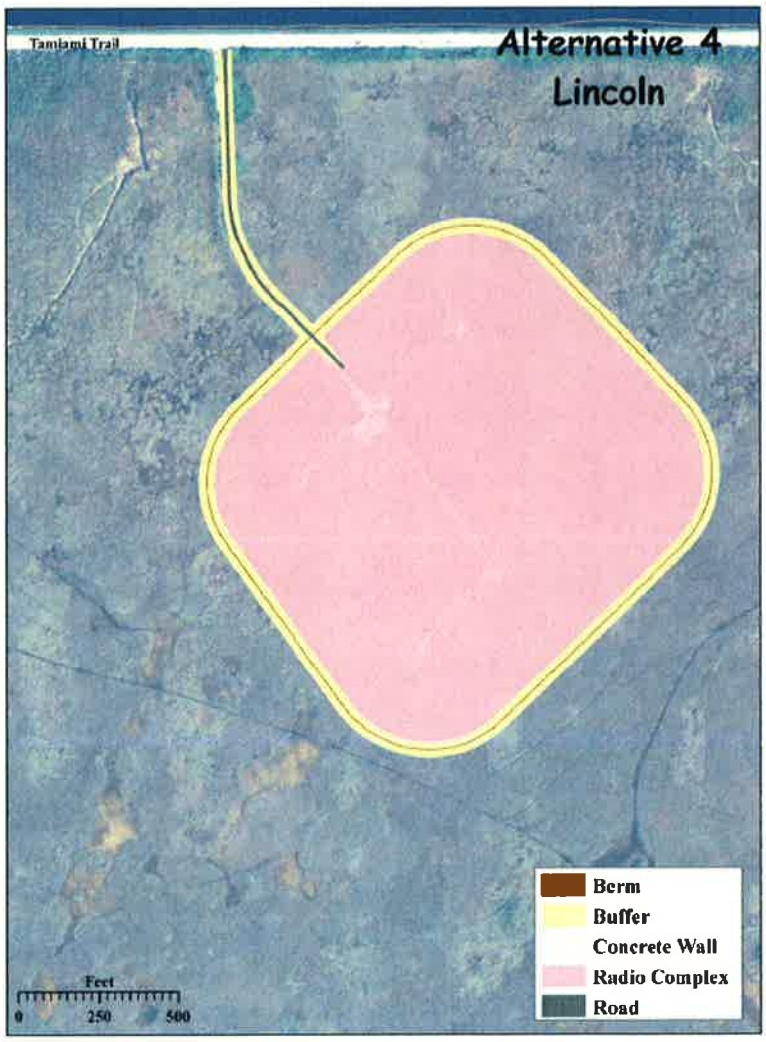

Figure 3. Footprint of Preferred Alternative (Alternative W-4), if flood protection is provided for the Lincoln Financial Media radio tower.

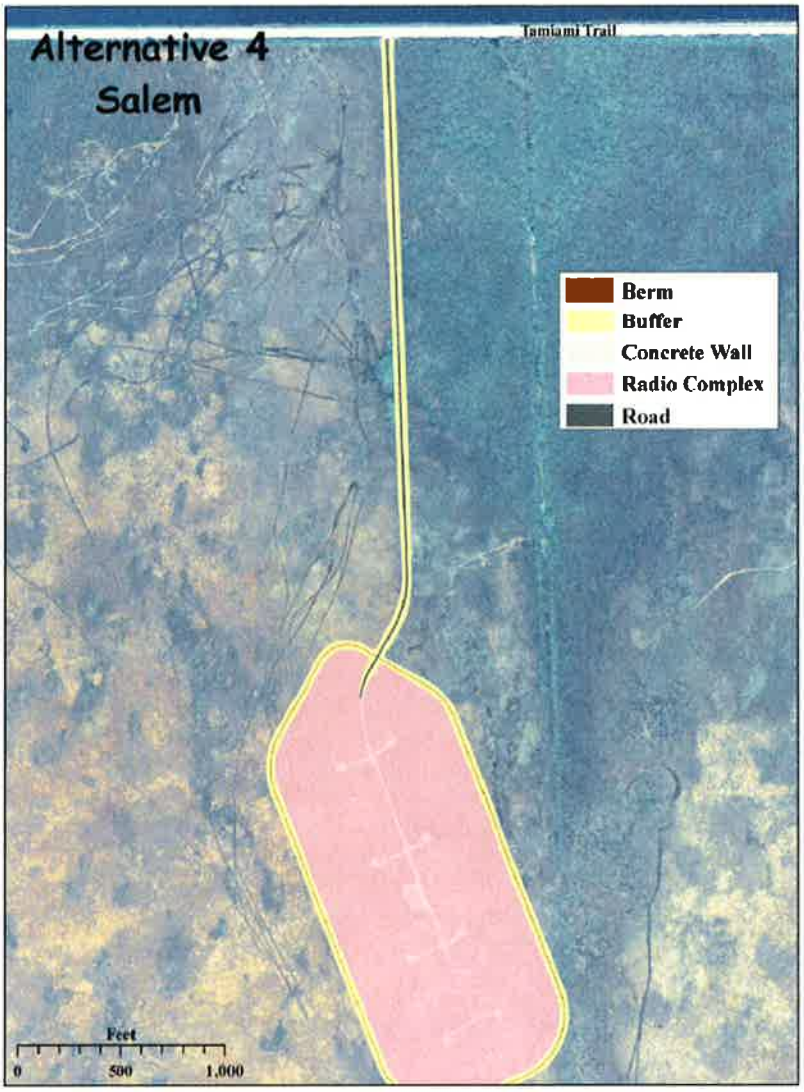

Figure 4. Footprint of Preferred Alternative (Alternative E-4), if flood protection is provided for the Salem Communications radio tower facility.

Bergmann & Associates *Letter Report* also addressed potential impacts of Section 404 Dredge and Fill actions that would be required due to flood mitigation measures, if the radio tower facilities were allowed to remain in the park once full restoration water levels are reached. The *Letter Report* states:

> *"Based on consultation with the Army Corps of Engineers (ACOE), the agency responsible for issuing dredge and fill permits, the project will require an ACOE Permit and it is likely that the permitting design effort will be fairly extensive due to the high quality nature of the wetlands adjacent to the radio tower sites that will be impacted. In addition, the proposed ditch re-routing in two (2) of the cure alternatives would create additional design permitting issues."*

Based on the impact topics evaluated in the TTM: NS EIS, dredge and fill activities in NESRS, outside the footprint of the bridge and roadway construction authorized for this project, would be incompatible with the project's long-term restoration objectives, since filling wetlands would alter the ecological values and integrity of the wildlife habitat and the restored hydrology. In addition, the LPP EA FONSI specifically stated that any dredge and fill activities in the addition would be incompatible with the 1989 Act.

C. Impacts of the Frequency and Location Authorizations Granted by the Federal Communications Commission (FCC).

According to the USACOE contractor (Hammett and Edison 2007) who investigated the radio signals at both radio tower sites in 1990 and 2007, water levels associated with implementation of the *Tamiami Trail Modifications: Next Steps* project (water stages up to the 100-year flood elevation) would not adversely affect day-time or night-time radio signals from the two radio towers. Any variations of signals that might occur would be minor and temporary and would not require any action by the station. No studies have been conducted on the effects of these radio transmissions on the environmental resources in NESRS.

D. Impacts on the Visual Enjoyment of Park Resources, i.e., Viewshed or Effects of Aesthetic Intrusion

The Everglades National Park GMP should be finalized in 2014 and will include a decision as to how the NESRS portion of the East Everglades Expansion Area of Everglades National Park should be managed to promote visitor use and enjoyment of park resources. An important component of the GMP will be a decision on what areas will be available for visitor use by motorized and non-motorized water craft. Although a final GMP visitor use plan has not been adopted for NESRS and the two radio tower sites are not easily viewed from the Tamiami Trail itself, it is likely that the multiple tower arrays at each of these sites (some several hundred feet high) will be readily observed by visitors who choose to venture into the park either by motorized or non-motorized water craft, whichever visitor use plan is finally adopted. Moreover, it is reasonable to assume that viewer enjoyment of the aesthetic aspects of the Everglades in this area of the park would be adversely affected by the sight of these radio tower structures.

6. Conclusion

The conclusion drawn from this supplemental assessment is that the two radio tower facilities currently located in the NESRS area of Everglades National Park are incompatible with the LPP EA and the TTM: NS EIS. The inter-disciplinary team determined the ecological and hydrological benefits to NESRS deriving from implementation of Alternative 6E, the TTN: NS authorized plan, could not be achieved if the flood mitigation measures that would be needed to allow these facilities to remain permanently in the park were implemented. Unacceptable and adverse impacts to park resources would include the direct loss of 94.2 acres of freshwater wetlands that are critical to the survival of numerous avian species, including the endangered Wood Stork; impacts to the restoration of the ridge and habitat in

the addition; impacts to myriad native species due to increased numbers of exotic species; impacts to water quality, and impacts on the aesthetic enjoyment of the park.

The assessment also determined that the structural modifications required to protect the radio tower facilities from the higher water levels associated with restoration would impede restoration of natural water depths and flow patterns needed to restore the ridge and slough habitat in NESRS. The operation of flood protection pumps, that would be needed once water levels in this region are restored, adds a risk, though modest, of pollutant-discharge water quality impacts that would be incompatible with the restoration objectives of the TTM: NS EIS.

Finally, the park evaluated aesthetic intrusion of the radio towers on visitor experience. While the radio tower sites are situated a few hundred meters south of the Tamiami Trail roadway and are not easily viewed from this vantage point, the Everglades National Park GMP, to be finalized in 2014, will identify areas where future motorized and non-motorized visitor access will be allowed in NESRS. Based on review of visitor use options in the draft GMP, it is likely the multiple arrays of tower structures at both tower sites (some several hundred feet high) will be visible and thus intrude on visitor enjoyment of this region of Everglades National Park.

7. References

Bergmann & Associates. 2009. Radio Tower Sites: Restore Vital Everglades Resources Feasibility Study. Letter Report. 2009.

Hammett and Edison, Inc. 2007. Letter Report. September, 2007.

Herring, H.K. and D.E. Gawlik. 2011. Resource selection functions for Wood Stork foraging habitat in the Southern Everglades. Waterbirds. 34 (2): 133-142.