

Jekyll Island Environmental Assessment Procedure (EAP):

Recommendations report summarizing the findings of the EAP Committee considering proposed vegetation clearing in the airport-use area.

Date of EAP Committee meeting: 2/18/2013

Alternative plan approved by Jekyll Island Authority (JIA) Board: 3/18/2013

EAP Committee Members

Ben Carswell, Director of Conservation, JIA (chair, present)

Kimberly Andrews, Research Coordinator, JIA (present)

Cliff Gawron, Director of Landscape and Planning, JIA (present)

Joe Malbasa, Past President of the Jekyll Island Citizen Association, airport user (present)

Richard Van Iderstyne, Jekyll Island citizen, business owner, and volunteer airport manager (present)

Terry Norton, Director of the Georgia Sea Turtle Center, JIA (not present)

Lisia Kowalczyk, Georgia Department of Natural Resources – Coastal Resources Division (not present)

Proposal under consideration

Jekyll Island Authority Staff have been informed by consultants (CDM Smith) working under the direction of the Georgia Department of Transportation (GDOT) and the Federal Aviation Administration (FAA) that trees and other vegetation growing within the Jekyll Island Airport Use Area have been identified as obstructions that exceed the height of the FAA defined primary surface of the airport (a rectangular plane extending 500 feet outward from either side of the runway centerline and 200-feet beyond both ends at the same elevation as the runway centerline). Consequently, it is the responsibility of the Jekyll Island Authority to create a plan to remove or mitigate these obstructions or to provide documented justification explaining why such removal or mitigation is not feasible.

CDM Smith staff has indicated to JIA staff that the response that would be most consistent with FAA guidelines would require the clearing of obstructions greater than 4-inches in height in all of the areas highlighted in Figure 1.

Figure 1. Areas proposed to be cleared, presented by CDM Smith to JIA and other stakeholders at a stakeholder meeting held on January 9th, 2013. The white dotted line delineates the Airport Use Area.



Relationship to airport maintenance funding stream

The EAP Committee was informed, and considered in its deliberations, the fact that the Jekyll Island Airport is currently maintained with the use of federal funds overseen by the FAA. Ronny Smith, JIA Chief Operations Officer, provided the information that this funding stream amounts to \$150,000 per year. The Committee understands that the obstruction clearing / mitigation plan developed by the JIA must be approved by the FAA and that continued federal support for airport maintenance will depend on such approval.

Assessment

The EAP Committee is charged with determining if a proposed project can be achieved in a way that maintains consistency with the Jekyll Island Conservation Plan. As such, any proposal that compromises the ability to preserve, maintain, manage, and restore Jekyll Island's natural communities and species diversity must be identified and flagged.

This EAP Committee concluded unanimously that the clearing of all the areas proposed in Figure 1 would result in unacceptable impacts to the following natural resources on the site.

- 19 Heritage trees¹, including the largest and highest-quality live oak specimens on Jekyll Island
- Land that remains free of the built environment, including forested areas, and is therefore classified as undeveloped
- Water quality inputs to freshwater and estuarine wetlands
- Freshwater wetland function (over 2 acres affected)

Furthermore, threats and stresses to the following vegetative communities, as identified in the Jekyll Island Conservation Plan, would be increased.

- Forested wetlands
- Saltmarsh ecotones (i.e., marsh edges)
- Freshwater herbaceous wetlands

And, the following island-wide management objectives would be compromised.

- Minimization of habitat fragmentation / loss
- Hydrological alterations (minimize and mitigate)
- Protect priority wildlife species

1. A tree which is designated upon approval by the Tree Inspector (Cliff Gawron, Director of Landscape and Planning), a certified arborist, or authorized agent(s) to be of notable historical value or interest because of its age, size, historic association or unique aesthetic value. The tree must be in good or fair condition in order to merit this designation.

Likewise, the following management-unit objectives would be compromised.

- Coastal Marsh
 - Maintain / Improve salinity levels and water quality for coastal marshes
- Upland Forest
 - Sustain large, diverse landscape connections
 - Wetland enhancement
- Urban / Park
 - Minimize footprint of development uses on conservation lands

In addition to these threats and stresses, the proposed clearing would affect the ratio of developed to undeveloped land on Jekyll Island by converting at least 12 acres of land-area currently classified as “undeveloped” to “developed”. The percentage of developed land on Jekyll is mandated by Georgia law to not exceed 35% of the island’s land area above mean high tide. A recent preliminary-assessment of land use on Jekyll Island has indicated that conversion of 12-acres of land from undeveloped status to developed status would not be legally possible. Pending final approval of that assessment, the JIA is unable to accommodate any proposals or recommendations that would necessitate the conversion of any undeveloped land area.

To provide a measure of the value of the trees that would need to be removed to accomplish the FAA-recommended clearing, Cliff Gawron, JIA Director of Landscape and Planning, surveyed the area to provide the following assessment of mitigation value for the trees in each zone indicated in Figure 1.

Zone 1: \$359,500.00	Zone 7: no mitigation required
Zone 2: \$66,600.00	Zone 8: no mitigation required
Zone 3: \$418,500.00	Zone 9: \$112,000.00
Zone 4: \$70,800.00	Zone 10: \$15,400.00
Zone 5: no mitigation required	Zone 11: \$22,500.00
Zone 6: \$121,500.00	

Total Tree Mitigation Value: \$1,186,800.00

Taken together, the EAP Committee finds that these impacts to the JIA Conservation Plan priorities, goals, and objectives, the 65-35 ratio, and the JIA tree-protection policies should be considered unacceptable. Therefore, the Committee proposes an alternative plan to respond to GDOT / FAA guidance and maintain consistency with the Conservation Plan and the statutory limit on development to 35% of Jekyll Island’s land area above mean high tide.

Figure 2. Proposed alternative plan: Obstruction-free zone extending 200-feet outward from either side of the runway centerline and 200-feet beyond the ends of the runway. The perimeter of the obstruction-free zone is marked by the heavy black line. The dashed black line at Zone 2 indicates a proposed exception described on page 7.



JIA-approved alternative plan

The EAP Committee proposes that a 200-foot distance on either side of the runway center line and 200 feet beyond the ends of the runway be maintained permanently with no vegetation growing within the perimeter of the area to exceed the elevation of the runway, and no vegetation growing outside of the perimeter of the area to be allowed to grow into it. The perimeter of the area to be maintained is depicted in Figure 2.

The proposed alternative plan would require significant vegetation management in Zones 5, 6, and 7. It would require pruning of vegetation growing along the taxi-way adjacent edge of Zones 1, 3, 8, and 9, but would otherwise leave this area undisturbed. It would not require any clearing in Zones 4, 10, or 11, but would allow for selective removal or pruning outside the 200-foot obstruction free zone, for specifically identified trees, if any are found to be impairing the effectiveness of the exiting obstruction lighting.

Critically, this plan would not require the removal of any Heritage trees (although some may need to be pruned on an annual basis), would not require permanent clearing within freshwater wetlands, and would maintain a protective vegetative buffer around all wetlands to mitigate the impacts on water quality from stormwater runoff from the managed airport surfaces.

In Zones 5-7, the dominant vegetation communities are characteristic of the saltmarsh ecotone (marsh edge) and coastal salt shrub thicket. These vegetation types are very similar to the vegetation communities growing along the Jekyll Island causeway. The Committee proposes that this vegetation be cut back to a height of approximately 1-foot above ground surface, with the exception of any salt-marsh jurisdictional plants, which would not be cut at all in accordance with the State of Georgia Coastal Marshlands Protection Act (O.C.G.A. 12-5-280, et seq.). After the initial pruning, the vegetation would be allowed to regrow to a height not exceeding the elevation of the runway surface. This will allow for a healthy native plant community that will continue to function as a wetland buffer without creating an obstruction as defined by the FAA and which will remain classified as undeveloped under the 65-35 statute.

Zone 6 contains a historic and cultural resource, the confederate earthworks. The proposed 200-foot obstruction-free zone would require removal of trees and shrubs growing on the earthworks but would retain trees and shrubs growing west of the earthworks. The trees on the earthworks site are mostly laurel oaks rather than live oaks, so the mitigation value would be relatively low. Furthermore, a community benefit and point of interest for sight-seeing may be derived by clearing the earthworks in a

manner that protects the historic resource, replanting the site with native grasses, and installing interpretive signage outside the airport fence along the newly-constructed bike path. A cleared earthworks would be easily identifiable from the bike path, much more so than it is today in its forested state. Because of this site's historic value, the earthworks is classified as developed land. Replacing the trees currently growing on the site with native grasses would therefore not result in any significant changes to the 65-35 land-use classifications and retention of the canopy to the West would be consistent with National Park Service guidelines for sustainable earthworks management, which encourage that "trees growing next to earthworks should remain as they protect the forest floor and provide protection of the earthwork with their canopy".

Zones 1, 2, 3, and 4 contain all the Heritage trees surveyed including the highest-quality live oak specimen on Jekyll Island as well as a tree that has been recognized as potentially the largest live oak tree in the United States. These trees are highly valued as natural and cultural resources by the residents of Jekyll Island, visitors from Georgia and throughout the world, and island staff. Some of the trees in Zones 1, 2, and 3 have branches that fall within 200 feet of the runway and would therefore require regular pruning under the proposed alternative plan. In February 2012, Zones 1 and 2 were pruned to remove any branches within 180 feet of the centerline of the runway. Even under the 200-foot alternative, pruning in Zone 1, 2, and 3 would require substantial mitigation to account for the compromised structural integrity and aesthetic value of three large live oaks, among them the island's highest quality example of *Quercus virginiana*, the State Tree of Georgia. **The committee therefore recommends that an exception be granted to the 200-foot rule proposed in the alternative plan to allow this living monument of natural and cultural heritage to be maintained at its present proximity of 180 feet from the runway centerline.**

Zones 8 and 9 are dominated by coastal salt shrub thicket, herbaceous freshwater wetlands, and forested freshwater wetlands. Clearing this area, even by hand, as proposed by CDM Smith as a potential outcome that would address the FAA's concerns, would convert undeveloped land area to developed land area. Furthermore, the Conservation Plan clearly guides us to protect freshwater wetland resources on Jekyll Island. These habitats are vital for ecosystem functioning and are among the most rare and threatened habitat types on Jekyll due to historic hydrological alterations and recent droughts and saltwater intrusion and inundation. The EAP Committee recommends that the JIA should not set a precedent of compromising protection of one of our most valuable natural resources. Therefore, the proposed alternative plan leaves Zones 8 and 9 essentially intact in its current state. Pruning will be conducted regularly along the edge of this zone to ensure that no vegetation encroaches within 200 feet of the centerline of the runway. Leaving this area in a vegetated state is also preferable

because a wetland devoid of emergent vegetation would be likely to be more attractive to large birds such as waterfowl, shorebirds, and wading birds that could represent a hazard to aircraft. Conversely, the area in its current state is more conducive to use by small song birds that pose relatively little danger to aviation.

Zones 10 and 11 both fall outside the proposed 200-foot obstruction free zone and therefore would not have to be cleared under the proposed alternative. Although no Heritage trees fall within these areas, 10 live oak trees would otherwise have to be removed under the FAA guidance to clear these zones below the primary surface at a mitigation value of \$22,500.00. The trees in Zone 11 also serve to shade the airport terminal building, thereby reducing the energy costs required to air condition the building and providing safe and comfortable working and meeting space for airport users and staff.

The EAP Committee recommends that any specific trees that impair a clear view, on approach or departure, of the existing obstruction lighting should be identified. These trees will then be selectively removed, or pruned at the discretion of JIA management, to ensure that the obstruction lighting remains effective.

The EAP Committee also discussed a proposal under consideration to extend the existing airport fence by adding new fencing that would parallel the northeastern half of the taxiway. During a stakeholder meeting convened by CDM Smith on January 9th, it was discussed that this fence might be installed along the eastern edge of Zone 8 and extend through the middle of Zone 9 to connect with the existing fence in Zone 10. Upon review, the EAP committee found this routing to be undesirable because it would require that a fence be installed through a freshwater wetland, thus causing soil disturbance, compaction, and clearing to occur in the wetland area. If a fence is to be installed, the Committee recommends installing it 200 feet distant to the center line of the runway. A three-foot wide cleared zone on the east side of the fence should be maintained to prevent vines from damaging the fence and to facilitate the pruning of any branches that may otherwise grow over the fence into the obstruction-free zone.

References

[Jekyll Island Conservation Plan](#)

[O.C.G.A. 12-3-243.1 \(2010\): 65-35 Land Use Statute](#)

[Jekyll Island Tree Protection Ordinance](#)

[Jekyll Island live oak may be biggest in U.S., The Times Union](#)

[Coastal Marshlands Protection Act](#)

National Park Service, Guide to Sustainable Earthworks Management

References continued

Minutes of the January 9th, 2013 stakeholder meeting convened by CDM Smith (copies available upon request)

Sligh Environmental Consultants Inc., Jekyll Island Airport Threatened and Endangered Species Report (copies available upon request)

Sligh Environmental Consultants Inc., Jekyll Island Airport summary of permitting requirements and wetlands delineation survey (copies available upon request)

Jekyll Island Airport Mitigation Tree Survey (copies available upon request)