



STATEMENT OF OUTSTANDING UNIVERSAL VALUE

Brief Synthesis

The Okefenokee National Wildlife Refuge (ONWR) is home to outstanding ecological and biological processes and is of sufficient size and elements to demonstrate the key aspects of processes that are essential for the long-term conservation of the ecosystems and the biodiversity contained therein. The scale, remoteness, and integrity of ONWR are globally significant because of their rarity in temperate climates. The area contains extraordinarily important habitats for in-situ species conservation and is among the most important for the maintaining the diverse flora and fauna characteristic of the bio-geographic province and ecosystems. ONWR's unfragmented expanse, nearly intact freshwater wetland, exceptionally high degree of naturalness, and representation of the regional biodiversity within one of the most highly developed regions of the temperate zone is remarkable on a global scale.

Justification for Criterion ix

The ONWR is comprised of ten different types of wetlands and is home to a highly diverse mosaic of open marshes, pine, cypress, and hardwood forest ecosystems, habitats and ecotones. Mires are extraordinarily important for water provision, biodiversity, and soil carbon sequestration. Unfortunately, mires worldwide have been the victims of conversion and degradation, many disappearing, and most having been at least damaged by draining, peat extraction, and pollution. The property contains exceptionally diverse and unique features, characterized by a seasonally and episodically changing plethora of land, water, and forest types. The ONWR demonstrates extraordinary geological, geomorphological, and paleontological particularities.

Most significantly, ONWR's vast, relatively undisturbed peat deposits allow it to serve as a window through which we can view the region's past, present and future via an unbroken information record over more than five millennia. Peatlands are critical for preventing and mitigating the effects of climate change due to their role as natural terrestrial carbon stores, storing more carbon than all other vegetation type in the world combined. Conversely, damaged peatlands are a major source of greenhouse gas emissions and peatland restoration can reduce emissions significantly. The role of fire paired with the naturally occurring hydrological processes and precipitation has been recognized as shaping the vegetation and diverse landscape mosaic. ONWR sits in a region with some of the highest occurrences of lightning in North America, which acts as a natural ignition for fires. Many ecosystems within the ONWR depend on this natural occurrence to survive. For example, the Longleaf pine-wire grass communities are dependent on the natural interplay between fire and precipitation. This maintains a high canopied pine savanna with a low understory. The longleaf pine ecosystem is associated with nearly 600 wildlife species, of which nearly half are considered rare, more than 100 are at-risk, and 30 are threatened or endangered.

Justification for Criterion x

ONWR is the largest contiguous intact habitat which offers the best available chances of viable populations in the longer term. The area contains an exceptionally high degree of species richness across several taxa, including 400 documented vertebrate species, 64 reptile species, 16 salamander species, 37 amphibian species, 16 freshwater turtle species (probably unmatched in a temperate zone), 39 species of fish, 1,000 species of moths, and more than 620 species of plants. It also contains uniquely high numbers of herpetofauna for a temperate ecosystem. The property is home to the American alligator, which is

recovering from historic near-extinction, along with many rare and endangered species including the indigo snake, gopher tortoise, alligator snapping turtle, and red-cockaded woodpecker.

Moreover, ONWR is classified as an Important Bird Area (IBA) by Birdlife International because of its protection for 42 endangered or high conservation priority bird species. Red-cockaded woodpeckers (RCW) are responsible for the construction of cavities. At least 27 species of vertebrates have been documented using RCW cavities. RCW are the only species of woodpeckers that exclusively excavates its cavities in living pine trees. The preferred habitat of RCW is longleaf pine forests, making the importance of the ecosystem even greater due to the endangered bird's reliance. Moreover, due to coastal disruptions, rising sea levels, and coastal development, the ONWR is increasingly becoming a safe haven for large populations of displaced species. The area is also a possible location for the reintroduction of the Florida panther, which is the only confirmed cougar species in the eastern United States. Populations of amphibian species are of global concern due to increased human activity encroaching on habitats, degradation of habitats, climate change, and increased use of pesticides, and ONWR provides a stable and protected environment for these species to thrive and reproduce in.

Statement of Integrity

While the ONWR has seen some effects of human contact and exploitation, it remains in an exceptionally good state of conservation by the standards of large temperate wetlands and has for a long time maintained its protection status. The respect afforded this status has reduced the risks of external threats, although it has not eliminated them entirely. The ONWR remains one of the largest, most intact and best protected places within the North American Coastal Plain, with the perimeter having remained the same for its entire 7000-year history. It has been named as one of the few remaining dark skies places in the United States. Additionally, no major point source pollution identified. In measuring the wholeness and intactness of the natural heritage and its attributes, particular attention must be given to the degree to which there is an adequate protection and management system in place, specifically, a demonstrable willingness, capacity and resources to effectively manage and conserve the designated area.

Requirements for Protection and Management

World Heritage nomination requires that each nominated property have an appropriate management plan or other documented management system which specifies how the OUV of a property will be preserved. The ONWR has been a designated National Wildlife Reserve since 1937 (which affords it strict protections) and is managed by the U.S. Fish and Wildlife Service, which operates an advanced fire management system through its Comprehensive Conservation Plan to maintain the flora and fauna habitats. Additionally, the area enjoys a high degree of natural protection due to unforgiving vegetation and terrain. The issue of fire management implicates surrounding areas in that it must be coordinated with adjacent commercial plantation forestry to prevent damage and ensure negotiation of competing interests while utilizing the productive uses of fire in the area. This will require the support on the local, state, and national level to achieve effective land management on the ground. A further challenge is maintaining preparedness for and having in place a response plan for the occurrence of invasive alien species, especially because the high number of visitors each year poses a risk of introducing unwanted materials.