

BEST MANAGEMENT PLAN: CONSERVATION MANAGEMENT AREAS

The purpose of this Conservation Management Areas (CMA) Best Management Plan is to establish standards for vegetation, fuels, and wildlife management consistent with SAS Resolution within the defined CMAs in Phase 1 SAP Institutional Use UF Property. These standards ensure CMAs will be protected using the management practices congruent with the Alachua County Comprehensive Plan and the conditions specified in the Special Area Study Resolution. As required of Alachua County's Unified Land Development Code (ULDC, Chapter XVII), a thorough Conservation Management Area (CMA) Management Plan will be prepared and submitted as a component of the application for the Preliminary Design Phase (PDP). Key requirements of the CMA Management Plan will include:

- Purpose: To manage and protect ecological integrity since the CMA's represent unique Significant Geologic Features (SGF), Significant Habitat (SH) and have exceptional features associated with the Hickory Hill Strategic Ecosystem (SE).
- Plan Components: Detailed descriptions of perpetual management activities, including authorized and prohibited actions within the CMAs.
- Protection Measures:
 - Fencing: Installation of fencing to prevent unauthorized entry while allowing appropriate wildlife movement.
 - Signage: Installation of signs marking the perimeter of the CMAs.
 - Erosion Control: Implementation of erosion control and barrier fencing during clearing and construction activities.
 - Gopher Tortoises: Site specific gopher tortoise burrow survey methodology, proposed protection measures, potential tortoise relocation, monitoring, etc. Information will include coordination of proposed evaluation and potential relocation permitting through the Florida Fish & Wildlife Conservation Commission (FWC).

CMAs shall receive permanent protection and a management plan limiting impacts, uses and the number of crossings to ensure ecological integrity. CMA management activities shall be designed to maintain native vegetation communities by emphasizing practices and measures that conserve the existing natural communities of plants and wildlife. Gopher tortoise (*Gopherus polyphemus*, USFWS - "Category 2 Candidate Species," FWC – "Threatened") and Florida Sandhill Crane (*Antigone canadensis pratensis*, FWC – "Threatened") are the only two listed wildlife species observed during site assessments of the CMAs. Other protected species known to occur in the vicinity have a possibility of occurrence since they are commensal species often associated with gopher tortoise burrows. These species include the eastern indigo snake (*Drymarchon corais couperi*), Florida mouse (*Podomys floridanus*) Florida pine snake (*Pituophis melanoleucus mugitus*) and the gopher frog (*Rana capito*). However, none of these species were observed during various environmental surveys conducted during the last few years. Woodland poppymallow (*Callirhoe papaver*, FWC – "Threatened") is the only state or federal threatened vegetative species observed on the site including within the larger CMA (Map 17c). Two (2) plant species identified on the site are listed as commercially exploited by the FDACS. The harvesting of these species, saw palmetto (*Serenoa repens*) and coontie (*Zamia integrifolia*), for commercial gain is prohibited. The FDACS protection of listed plant species focuses on preventing illegal collection, transport and sale of listed plants.

Measures to Limit Impacts, Uses, and Number of Crossings in CMA's:

CMAs shall be preserved in accordance with the Special Area Study (SAS) and the CMA Management Plan established for this development. To limit impacts, multiple approaches will be established.

- Fencing will be used when necessary to delineate CMAs, restrict access to CMAs, and reduce potential human wildlife conflicts in high use golf course areas. Use of wildlife fencing (e.g., 42-inch, 3 strand non-barbed wire) may be installed along the designated perimeter of the CMAs to ensure wildlife access. Use of six (6) foot fencing may be installed within or adjacent to the public access areas.
- Use of heavy equipment will be restricted to the extent possible within CMAs to preserve soil structure, plant communities, and sensitive soil dwelling fauna. Pedestrian trails will be defined within CMAs to address Condition 15 within the community access plan. Trails may be impervious or pervious surfaces. , Pedestrian and bicycle traffic will be relegated to trails to limit impacts of human use, except when necessary to accomplish management objectives regarding vegetation, fuel, and wildlife maintenance activities. These restrictive measures are particularly important for preservation of active gopher tortoise burrows which are sensitive to collapsing under the weight of equipment and foot traffic. Gopher tortoise burrow surveys will be conducted within the limits of the three designated CMAs. Where proposed development crossings such as roadways, trails, cart paths, utilities, or other improvements occur within a CMA, a one hundred percent (100%) gopher tortoise burrow survey shall be conducted within a minimum of fifty (50) feet of the proposed disturbance area. Where development or land disturbance activities occur directly adjacent to a CMA boundary, a burrow survey shall be conducted within a twenty-five (25) foot buffer inside the CMA boundary. The locations of active and inactive burrows will be located using a Global Positioning System (GPS) with coordinates and burrow status depicted on appropriate recent aerials. Active burrows proposed for protection will be permanently marked with minimum 5-ft. tall painted metal stakes and flagging ribbon tied to adjacent shrubs and trees to delineate the required 25 ft. buffers. These buffers will be depicted on appropriate aerials to delineate and protect from mechanized equipment and limited to pedestrian foot traffic to monitor gopher tortoise activities. Flagging ribbons will be re-established at the same 25 ft. buffer boundaries after prescribed fire applications within associated CMAs.
- A minimum buffer of 50-ft between active burrows and permanent structures and impervious surfaces shall be maintained upon initiation of establishment. If impacts to occupied gopher tortoise burrows cannot be avoided, relocation shall be conducted in accordance with all applicable Florida Fish and Wildlife Conservation Commission (FWC) permitting requirements and relocation guidelines in effect at the time of relocation. Relocation activities shall be completed by authorized agents to approved recipient sites prior to any land-disturbing activities, and all required buffers, monitoring, and reporting shall be implemented to ensure compliance with FWC standards.
- Flora and fauna of the Hickory Sink Strategic Ecosystems evolved with frequent wildland fire and thus, recurring prescribed fire is the preferred tool for the protection of native flora and fauna. Low intensity surface firing techniques will be utilized on a <3 year fire return interval to maintain the native plant community composition and structure needed to support gopher tortoises and other wildlife species and to reduce fuel loads to avoid wildfire risks. Prescribed fires will be carried out with a certified prescribed burn manager on site, in accordance with a notarized prescribed burn plan, and with the necessary smoke permits on the day of occurrence in accordance with applicable county and state regulations. When necessary, mechanical or chemical means can be used to maintain desired native plant community composition and structure. In the case of invasive plant species, prescribed fire may not control and could promote those species and thus, may necessitate mechanical or chemical control measures as needed. No ornamental landscaping turf establishment, fertilizer application, or irrigation is permitted within the CMAs.

- Invasive exotic plants are a threat to the integrity and function of CMAs. Thus, control will be prioritized and accomplished through an integrated management approach. The approach will include semiannual monitoring and control measures will include mechanical removal, and targeted herbicide applications when necessary. Control measures will be selected based on species, site conditions, and proximity to sensitive natural resources to minimize non-target impacts. Routine semi-annual inspections will be conducted to detect new infestations early and prevent re-establishment. All invasive plant management activities will comply with applicable state and local regulations and be documented in the site's land management plan.
- Delineated crossings to connect key infrastructure within the golf course will be limited in CMAs to the extent feasible and precautionary measures such as strategic placing of impermeable fencing will be placed to reduce the potential for human wildlife conflicts and to facilitate wildlife corridors throughout the CMAs.
- Cart path crossings shall be no more than 20 feet in width and path material can be impervious or pervious. Where possible, cart paths shall follow existing trail roads to limit impacts to the CMA.
- Limits of disturbance shall be clearly defined on the construction plans in accordance with the BMPs for all crossings of the CMA.