

MANAGEMENT RECOMMENDATIONS FOR PALMETTO PLANTATION IMPOUNDMENT

Introduction

Before intensive management of the tidal impoundment at Palmetto Plantation can ensue, the following activities should be considered: (1) replace existing water control structure with treated wooden trunk of 1'x 4'x 16' dimensions; (2) retop existing dike to a surface width of 10'-12' (material should be excavated from the inside of the impoundment and widened to the inside); (3) create a 10' wide firebreak around the entire outside of the impoundment for purposes of management applications and safety; and, (4) clean (excavate) internal ditches for improved drainage.

Site Preparation

Prior to intensive management, certain mechanical applications should be considered to ready the marsh bed for management: (1) bulldoze entire marsh bed creating linear windrows of woody material; (2) mow any remaining emergent vegetation and allow to thoroughly dry; and, (3) conduct a hot cover burn over the entire marsh bed to expose the bottom soils.

Testing and Survey

It would be helpful to conduct an elevation survey to determine how much tidewater would be needed to flood the marsh bed to a certain depth. The soils should be tested for pH and nutrient levels.

Management Classification Determination

It has been determined that the basic ecology of the impoundment places it in the classification of **Intermediate Tidal Wetlands** where tidewater salinities average 1-5 ppt. The type of management recommended for this scenario is termed **Intermediate Moist-soil Management**. Since the property has historically been flooded from the nearby AIWW, there will be times when much higher salinity levels will occur. Therefore, it is recommended that freshwater runoff from the mainlands adjacent to the impoundment be captured to dilute tidewater salinity levels above 5ppt. Intermediate Moist-soil Management targets naturally-occurring emergent plant species that provide food and cover for waterfowl and other wildlife. Target plant species that thrive under this management scenario are saltmarsh bulrush, dotted smartweed, fall panicgrass and Walters millet.

Typical Moist-soil Scenario For Intermediate Tidal Wetlands

A typical moist-soil scenario can be used for many years once competing vegetation has been eliminated through mowing, burning and water level manipulation and a diverse community of natural waterfowl food plants has been established.

1. Drawdown during late February-early March to expose marsh soils. Drawdown should be gradual to concentrate invertebrates for waterfowl and shorebirds and to concentrate forage fish for wading birds.
2. Maintain drawdown through April for germination of target plant species. Standing water should not cover the marsh during this period.
3. In late April to early May, flood ditches by circulating low salinity (<5pp) tidewaters through trunk(s). The marsh should not be covered with water. Maintain water levels slightly below the marsh bed.
4. Continue circulating low salinity tidewaters through ditches until late September.
5. In early October, gradually lower water levels to 10 inches below marsh bed. Conduct spot burns from October to November when conditions are optimal.
6. Flood in mid-November to 9 inches or more, depending upon burn success and condition of vegetation. Delay flooding if standing vegetation is green.
7. Monitor and maintain water levels at 9 inches throughout the fall and winter.