

MASTER PLAN REPORT
FOR
PEA ISLAND NATIONAL WILDLIFE REFUGE

by:

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U. S. Fish and Wildlife Service
Pea Island National Wildlife Refuge
P. O. Box 150
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Environmental Assessment
for
Master Plan of
Pea Island National Wildlife Refuge

Pea Island National Wildlife Refuge
Dare County, N. C.

Three man-made impoundments exist on the northern half of the refuge. The area in these ponds totals approximately 950 acres. Active water level management has been employed in the past in all 3 areas; however, at present, there are no capabilities for water level control in South Pond. Since the water control structure was built, the adjoining tidal creek has closed. The result is a structure with no adjoining water way; thus, South Pond is totally dependent on rainfall as a water source.

The water level in New Field pond is controlled by a set of flap gates on the sound side. These gates provide opportunity for an influx of sound water by gravity during the high tides when needed. In North Pond, the water control structure is associated with a 30' pump. The pump enables more thorough control of the water level since it is not dependent on tides and gravity feeding.

Water level control enables refuge staff to ensure proper habitat for resting and feeding of waterfowl, waterbirds, and an assortment of other wildlife species. Some areas around the impoundments are allowed to succeed to brush communities to provide nesting habitat for black ducks and pheasants; other areas on the dikes will be mowed for use by gadwalls for nesting. The ponds provide excellent areas for duck brooding also.

Approximately 800 acres of high marsh are control burned on a 3 year rotational basis. There are 12 areas on the refuge involved in the burn, with approximately 270 acres being burned each year. The burning process sets back succession, causing the vegetation to revert back to basic grasses.

Approximately 50 acres in New Field are plowed and planted in rye or fescue each year.

In areas where the vegetation has become extremely overgrown, disking is utilized. Although all of these activities are used primarily to create feeding habitat for geese, many other wildlife species utilize these areas as well.

Several other management programs and/or activities are carried out each year on the refuge. During the summer months, loggerhead sea turtles and colonies of least terns nest on refuge beaches. Refuge staff patrol to find loggerhead nests each day. Those nests in hazardous areas are relocated to a "nursery" to be protected until they hatch. Areas where least tern colonies nest are posted as closed areas for protection against human disturbance. In addition, refuge beaches are closed to ORV use.

There are four existing osprey nesting platforms on the refuge. Two are located in North Pond, one at New Inlet, and one several miles south of headquarters.

Environmental Consequences

| Affected Environment | No Action | Proposed Alternative |
|-----------------------------------|--|--|
| Barrier Island Dynamics Continued | <p>Vehicle use (FWS vehicles only) would continue to compact sand on service roads. Highway 12 would be maintained and moved when determined necessary by the N. C. D. O. T. There would be no overall effect on the floodplain (conforms with Executive Order 11988 - Floodplain Management).</p> <p>Visitor activities would continue in the coastal floodplain. No major adverse effect would be associated with these activities.</p> <p>Plowing and planting of 50 acres would have little effect on coastal floodplain.</p> <p>Use of foot trails, since associated with dike system and service roads, would cause little additional compaction.</p> <p>Maintenance of parking areas would cause no further impact on coastal floodplain.</p> | <p>Same as No Action</p> <p>Visitor activities would increase. Still, no major adverse effects would be associated with these activities.</p> <p>Same as No Action except affected area would decrease to 35 acres.</p> <p>Slight adverse effects from the use of Outdoor Classrooms would be evident in dune, salt marsh, and salt flat areas. Effects would result from foot traffic only.</p> <p>Foot trail construction and use, since associated with a dike and an old road bed, would cause little additional compaction.</p> <p>Rehabilitation and expansion of parking areas would cause minor additional compaction of land in coastal floodplain.</p> |

Submitted by Albert R. Hight
Manager, Pea Island NWR

Date April 9, 1952

Concurrence and Approval by:

Area Manager

Date _____

Assistant Regional Director

Date _____

Regional Director

Date _____