Queen Anne's County

Coastal Zone Management Program
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MANAGEMENT PLANS FOR SIGNIFICANT PLANT AND WILDLIFE HABITAT AREAS OF MARYLAND'S EASTERN SHORE: QUEEN ANNE'S COUNTY

APPENDIX B TO

FINAL REPORT

SUBMITTED TO:

Coastal Resources Division
Tidewater Administration

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Forest, Park and Wildlife Service
Department of Natural Resources

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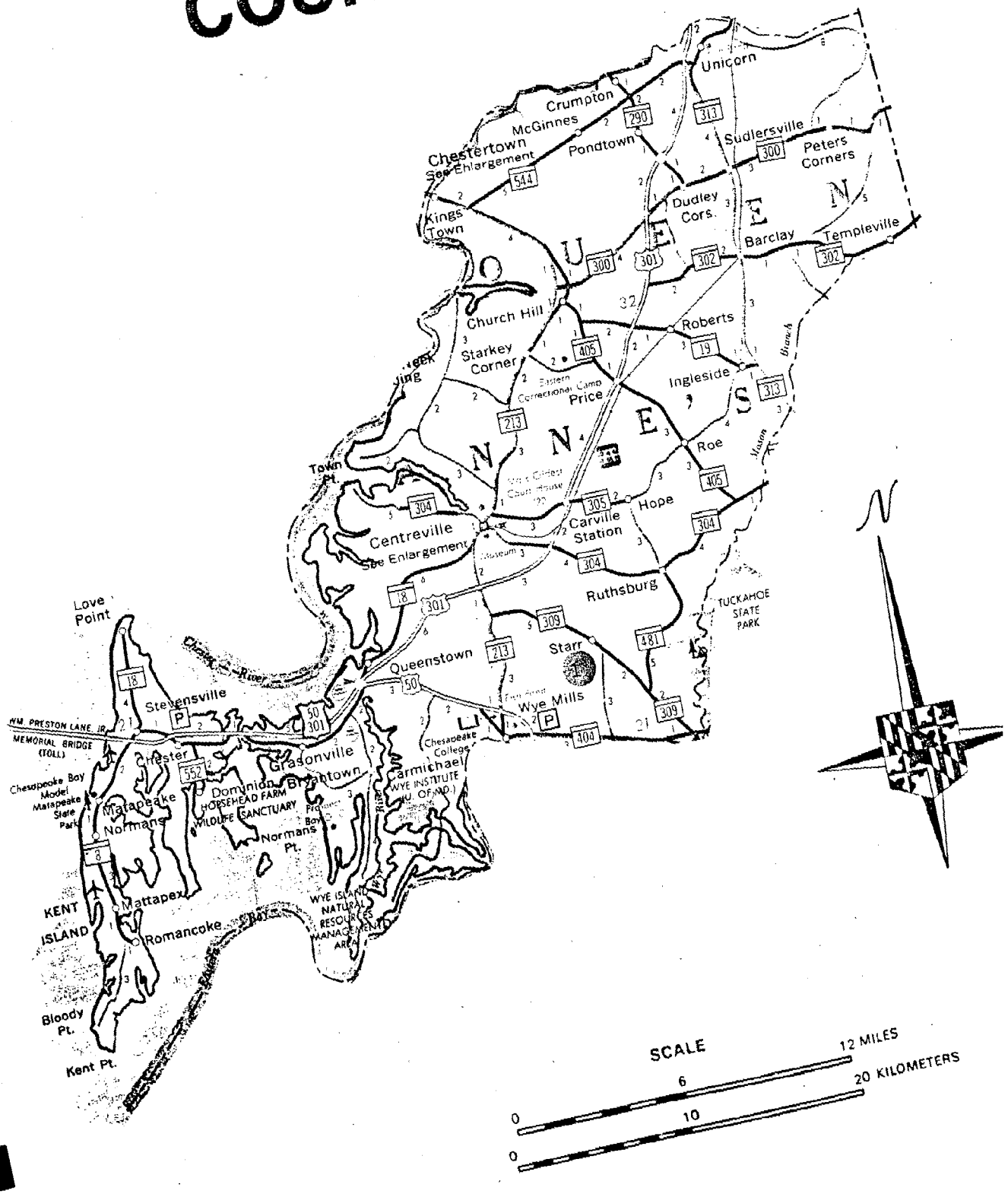
APPENDIX B

COASTAL ZONE
INFORMATION CENTER

QUEEN ANNE'S COUNTY



QUEEN ANNE'S COUNTY: Protection Area Locations

Protection Area	Site # on County Map
Starr Ponds	1

PROTECTION AREA SUMMARY

Protection Area Name: Starr Ponds

County: Queen Anne's USGS Quad: Wye Mills

SUMMARY OF ECOLOGICAL SIGNIFICANCE:

Two small seasonal ponds are the focus of this protection area. Seasonal ponds are centripetally-drained wetlands which, in Maryland, are virtually unique to the Eastern Shore and often contain rare, disjunct, or endemic species. While most seasonal ponds have been drained and converted to agricultural land, the two ponds in this protection area remain relatively undisturbed and, if maintained, can continue to support rare plant species.

These two wetlands are flooded early in the spring, and water levels recede during the summer, leaving exposed but saturated soils. Three rare herbaceous plant species inhabit these exposed soils. One species is known from only four other sites in Maryland and is at the northeastern limit of its range. The other two species are each known from fewer than 15 sites in the State.

OTHER VALUES AND SIGNIFICANCE:

Other rare species may inhabit these ponds. Because flora and fauna vary seasonally and annually with water levels, several visits would be required to develop a complete species inventory for this site.

Seasonal ponds offer breeding, nesting, and feeding habitat to many birds and amphibians. In addition, deer and other wildlife frequent the ponds to feed and rest.

THREATS AND MANAGEMENT NEEDS:

Threats

Alteration of the groundwater hydrology is the greatest potential threat to the populations of rare species. These species are maintained by the current frequency and amplitude of flooding. Ditching or draining would cause the ponds to dry and promote the growth of trees and shrubs to the exclusion of the rare herbaceous species.

Clearing of the adjacent forest would also alter the quantity and quality of groundwater, and would promote the

invasion of weedy, non-native species into the protection area. Such species tend to take over areas previously occupied by rare native species. In one pond, Trumpet Creeper vines are already beginning to spread across the pond from the nearby open roadside.

Management Needs

No ditching or removal of forest vegetation should be conducted within the protection area boundary. The landowners should be encouraged to protect the unusual plant communities on their properties by maintaining the natural groundwater hydrology and surrounding forest cover.

The population size and reproductive maturity of the rare species should be monitored regularly. Selective removal of weedy species invading from the roadside may be required, in order to maintain the rare species' populations.

Any plans for ditching, draining or development of land adjacent to the protection area should be reviewed for potential effects on the hydrology of the seasonal ponds.

BOUNDARY RECOMMENDATIONS:

The protection area boundary contains the seasonal ponds, including the rare species habitat, and a forested buffer on all sides. By maintaining the forest around the ponds, local groundwater conditions and canopy cover will be maintained. If it is determined that land uses outside this boundary will affect the supply of groundwater to the ponds, mitigatory actions should be taken so that the water level and amplitude of water level fluctuations are maintained in the pond.

SITE DESCRIPTION SUMMARY:

This 8 acre protection area contains two one-acre ponds within a mixed hardwood forest. One is located within 20 ft. of the road and is therefore highly subject to disturbance. The middle of the pond is dominated by Buttonbush. Intermingled with and adjacent to these shrubs on two sides of the pond are large patches of a rare herbaceous species, accompanied by grasses and Sneezeweed. The remainder of the pond contains many large dead logs as well as Red Oak, Willow Oak, and Sweet Gum with little herbaceous growth beneath them. These areas may remain wet late enough in the season that new growth is inhibited.

The second pond contains few shrubs or trees. It is dominated by a large central portion of herbaceous growth consisting of Smartweed, Mermaid-weed, grasses, and a rare

species. Two rare plant species are found near the edge of the pond, along with ludwigia and several sedges. A patch of unvegetated ground occurs on the northern side of this pond. Both ponds are surrounded by shrubs, especially Fetterbush, Sweet Pepperbush and Greenbrier.

The adjacent forest consists of oaks, Sweet Gum, Red Maple, Black Gum, dogwood, Fetterbush and Sweet Pepperbush. Small footpaths, as well as old vehicular tracks, traverse the site. The latter were created when the forest was selectively cut at least 5-10 years ago.

Prepared by: Judith L. Robertson

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