



Wetlands Board

BULLETIN



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WETLAND MANAGEMENT: AN EARLY HISTORY

"...horrible desert, the foul damp ascends without ceasing, corrupt the air and render it unfit for respiration... Never was Rum that Cordial of Life found more necessary than in this Dirty Place."

A gloomy description at best by Colonel William Byrd III when, in the 17th century, he surveyed The Great Dismal Swamp. This attitude persisted well into the 1900's. The general consensus was wetlands were wastelands that should be avoided, drained, or filled. As noted by Larsen and Kusler (1979), "For most of recorded history, wetlands were regarded as wastelands if not bogs of treachery, mires of despair, homes of pests, and refuges for outlaw and rebel. A good wetland was a drained wetland free of this mixture of dubious social factors." It was this general dictate that was responsible for the loss of almost one-half of the wetlands that had existed in the lower 48 states.

In fact, some laws were enacted to encourage the drainage of wetlands. In 1849, Congress passed the Swamp Land Act which granted Louisiana control of all wetlands and overflow lands in the state for the purpose of controlling floods in the Mississippi basin. The decade between 1850 and 1860 saw the Act extended to the states of Alabama, Arkansas, California, Florida, Illinois, Indiana, Iowa, Michigan, Mississippi, Missouri, Ohio, Wisconsin, Minnesota, and Oregon. The Swamp Land Act decreased federal involvement in flood control and drainage by transferring federally owned wetlands to the states, allowing them the opportunity to fill or "reclaim" wetlands through drainage and levee construction. While the Swamp Land Act is disregarded today and current government policies have been established to protect wetlands, the

Act was the first wetlands policy of the United States and it was one directed toward the elimination of wetlands.

In the 1960's, views concerning wetland values changed dramatically as scientists began discovering a multitude of benefits attributed to wetland areas. The information collected on wetland values was overwhelming and the public called for their protection. In 1977 President Carter issued an executive order that established the protection of wetlands as an official policy of the federal government. Executive Order 11990, Protection of Wetlands, requires federal agencies to consider wetlands protection as an important part of their policies: "Each agency shall provide leadership and shall take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for (1) acquiring, managing, and disposing of Federal lands and facilities: and (2) providing federally undertaken, financed, or assisted construction and improvement; and (3) conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities."

Yet despite the recent enlightenment of the public and government officials, some feel that maybe we are too late, that too much has been lost or degraded, that the battle to save the Nation's wetlands was lost before the fight could begin. Anne Simon (The Thin Edge, 1978) writes: "Wherever we turn on the coast we confront the awful destruction of its magnificent natural system. We can no longer escape the results of years of short-sighted use but must, for the first time ever, witness the dying coast and wonder if we can still save it. Knowing what we know makes ours the crucial generation."

However, recent commitments by various states to environmental issues, vigorous state programs centering on zoning and wetlands protection and dedicated local boards and officials have slowed the wetland loss. As wetland losses are slowed, degraded wetland areas restored, stricter wetlands laws enacted, and new wetlands created, we may be at a junction where this generation can make a difference.

FUTURE ARTICLES

SEA LEVEL RISE

How fast is sea level rising today? Is the rate of rise accelerating? Is the rate of rise the same all over the world? What is the greenhouse effect? How does it affect sea level rise? What are the implications for wetlands; for wetlands management?

WASTE ASSIMILATION

How good are wetlands as waste assimilators? How well do they function to trap pollutants running off the land? Can they be used to treat sewage from sewage treatment plants? What are the problems associated with such proposals?

MARSH COMPENSATION

How successful have attempts to create marsh been in Virginia? Is it possible to totally replace a marsh lost to development? How long does it take? When is marsh compensation appropriate?

These are a few of the subject areas we hope to discuss in future *Bulletins*. We will endeavor to bring you the results of wetlands research activities and other news of importance to you as wetlands managers. Do you have subject areas you would like to see discussed? All questions do not have ready answers but we will provide as much information as is available. Let us know your areas of interest and any subjects you would like to see discussed in the *Bulletin* in the future. If you would like to write an article for publication, do not hesitate to contact us.

A NOTE FROM THE VIRGINIA MARINE RESOURCE COMMISSION

The following was submitted by Mr. Norman E. Larsen, Chief, Habitat Management of the VMRC.

APPEALS TO VMRC

WRONG IMPRESSION

In reviewing the records forwarded by local boards, it is apparent that some boards leave the distinct impression with the applicant that if the board's decision is not favorable, an appeal to VMRC can result in a more favorable outcome. Even the subtle conveyance of such an impression is a disservice to the applicant, to the Commission and to the local board.

MERITS OF THE PROJECT

While the aggrieved appellant always wants to review the merits of a project, that is not the function of the Commission. Their role is to determine whether the board did its job properly, that there were no procedural errors during the process, and that the decision was reasonably consistent with the policy and standards of the law and the VMRC guidelines.

URGE TO UPHOLD

For many reasons, the Commission is most reluctant to reverse the decision of a local board. The board is presumed to be the best informed on the matter, to have acted responsibly, and to have carefully weighed the anticipated benefits and detriments. If the Commission decides to open the record for additional evidence, and matters are introduced that were not presented at the local hearing, the case will almost certainly be remanded for reconsideration.

APPELLANT MUST SHOW CAUSE

While both the applicant and 25 freeholders have the legal right to request a Commission review of the process, the appellant must be prepared to show where the board erred in arriving at their decision, and how that error has prejudiced their substantial rights. Alternatively, they must show that the decision is inconsistent with the policy, standards and guidelines of the Wetlands Act.

The Commission certainly does not wish to be placed in a position of supplanting the judgement of the local board by being forced to re-evaluate the merits of a proposal.

WETLANDS WORKSHOP

The Virginia Institute of Marine Science will be holding the annual Wetlands Workshop sometime near the end of September or the beginning of October. All wetlands board members and VMRC commissioners are encouraged to attend. More information concerning the Workshop will be forthcoming.



VIMS SHORELINE PERMIT APPLICATION REPORTS

Within the next month the VIMS Shoreline Permit Application Reports will be written under a different format. This change is to help facilitate the computer logging of permit information.

SPECIAL FEATURE

The following section will be an ongoing feature on specific counties and cities and their wetlands board members.

MIDDLESEX COUNTY

The tidal wetlands of Middlesex county represent a rich floral and ecological resource. They span the entire spectrum of marsh types from the freshwater tidal marshes of the Dragon Run and Mud and Parrots Creeks to the types more indicative of a saline environment in the lower portions of the county. The approximately 1675 acres of tidal wetlands are distributed along the county's approximately 135 miles of shoreline for an average of 12.5 acres of marsh per mile of shoreline.

These marshes serve a number of important ecological functions which contribute significantly to the productivity of the estuarine system and to the quality of man's experience on the water.

These contributions include being a source of detritus which supports a substantial portion of the estuarine food web, productive habitat for waterfowl, furbearers and other wildlife, an effective buffer against shoreline erosion, a means of water quality control by filtering upland runoff and cycling nutrients in the estuarine waters and a buffer against flooding by providing an undeveloped area which flood waters can occupy without affecting the fastland. By providing all of these services free of charge the tidal wetlands contribute significantly to fish and wildlife habitat, clean water, and many other qualities which man has always come down to the sea to enjoy.

They are, however, a finite resource which must be utilized very carefully and preserved whenever and wherever possible to ensure that future generations will be as privileged as the present generation. It is important to quantify and describe the qualities of the wetlands in Middlesex County so that wise decisions on their use and conservation can be made.

There are approximately 1240 acres along the Rappahannock River and its tributaries with the majority concentrated in the upper portions of the county. These include the extensive big cordgrass dominated creek marshes of Mud, Parrots and Lagrange Creeks. The marshes of the lower portion of the county are predominately fringing and pocket marshes dominated by saltmarsh cordgrass and saltmeadow grasses. The Piankatank River from Stingray Point to Dragon Run contains 435 acres of marsh. The lower portion being similar to the marshes along the Rappahannock River and the upper portion dominated by extensive big cordgrass marshes which grade into the largest tidal freshwater marshes in the county above My Lady's Swamp.

The wetlands of Middlesex County are dominated by three types of plants, big cordgrass, *Spartina cynosuroides*, (322 acres), saltmeadow grasses, *Spartina patens* and *Distichlis spicata* (320 acres), and saltmarsh cordgrass, *Spartina alterniflora*, (288 acres). The first is characteristic of brackish waters and the latter two of more saline waters. There are three subdominant species which include cattails, *Typha* spp., (201

acres), black needlerush, *Juncus roemerianus*, (180 acres), and saltbushes, *Iva frutescens* and *Baccharis halimifolia*, (178 acres). Cattails are the dominant species in the freshwater marshes while black needlerush and saltbushes are important components of the brackish and more saline marshes.



THE MIDDLESEX COUNTY WETLANDS BOARD

Mr. Sherman T. Holmes, Chairman.

Mr. Holmes is chairman of the wetlands board and is a former instructor for the Department of Agriculture's Institute of Classroom and On-the-Farm Training serving 14 counties.

Mr. Holmes feels "enforcement and constant unpermitted construction activities" are some of the biggest problems faced by the wetlands board. "Man has destroyed so much of our natural resources", says Mr. Holmes, "it is necessary to teach the public about the importance of wetlands." According to Mr. Holmes, "the public, generally, wants to see wetlands protection" and supports the board's regulation.

Mr. Holmes has served on the wetlands board since 1976.

Mr. B. Ulman Miller.

Mr. Miller has served on the wetlands board for two years and was formerly an employee of the Virginia Game and Inland Fisheries Department working in five counties including Middlesex.

"The people feel we do a fairly good job and realize the need to protect wetlands", says Mr. Miller, but he adds "more enforcement power and larger fines for violators" are needed to help stem the loss of wetlands. What has he learned while serving on the board? "...just how valuable and fragile the wetlands are."

Mr. M.J. Yankovich.

Mr. Yankovich worked for the city of Richmond as a supervisor of emergency communications for over 29 years and has served on the wetlands board for 6 years.

Mr. Yankovich believes the public is starting to take a genuine interest in wetlands protection. "More people have called me this year concerning wetlands than ever before," says Mr. Yankovich. "The people are really becoming educated", he adds. However, Mr. Yankovich has a serious problem with after-the-fact permits. "I believe after-the-fact permits help create

more violations" states Mr. Yankovich. "It seems like someone is always trying to gain more land" at the expense of wetlands.

Explosive development along the waterways is another concern to Mr. Yankovich. "Broad Creek, for example, is just overloaded with slips and development ...who has the authority to say 'enough is enough'?"

The bottom line from Mr. Yankovich, "...save as much wetlands as possible and be more stringent on wetlands that are being destroyed."

Mr. James Young

Mr. Young works in plumbing and carpentry and has served on the wetlands board for approximately four years.

Mr. Young feels the general public is concerned about saving wetlands and that the board's main job is "to help people do the right thing."

During his service on the board, Mr. Young has learned to appreciate the values of the natural resources of Middlesex. He says "it is very important to get more people in the community involved."

Mr. James Ray

Mr. Ray works with an engineering and construction company and is relatively new to the board having served almost one year.

Mr. Ray believes there is a general concern to protect the natural resource, but that many people do not take the Wetlands Act seriously. He feels that "lackadaisical attitude toward the regulations and enforcement" is one of the biggest problems facing the board.

When reviewing a project, he says "good judgement and common sense" can generally result in the right decision. He adds, "the board is not meant to dictate to people what they can do, but is there to serve the best interests of the citizens of the county."

WETLANDS RECIPES

Cattail pollen flour

The yellow cattail pollen is very fine and collecting it can take some time. We suggest using a paper bag to shake the pollen into so that a sudden breeze won't blow away your effort. Pollen should be stored in a clean, screw-capped jar. Cattail pollen is a rich-tasting additive to pancake flour and adds an appealing yellow or golden color.



CATTAIL POLLEN AND FISH CHOWDER

1 qt water	2 cups cattail pollen
1 lb any type fish	salt and pepper to taste

Clean and wash fish and cut to medium-size pieces. Place in water, bring to boil, add pollen and cook until tender. Season to taste. (Stewart and Kronoff, *Eating from the Wild*, 1975)

THIS ISSUE'S QUOTES

*"Gentle rising and falling of the tide over ribs of sand; swirling fogs; burning sun with spokes slanting down through clouds over the rim of the world, letting in calm soft lights, green and pink and pearly across sand and rivulets and pools, or cruelly glittering diamonds over the water. Light and water and wings flow in and flow past, the motion of ages, all actions being synchronized, as the hovering and diving of the tern is synchronized with the fish it catches, part of the indefinite combinations of things in a universe of motion. Over these waters and receptive sands life crawls or flies, dives, halts, stops, and starts, wildly, with quick hearts beating, or scarcely a heart at all, blind, or vibrant with sight, probing with accuracy and speed or merely moving at random." (John Hay, *The Great Beach*, Ballentine Books, 1963)*

"Sell the country? ...Why not sell the air, the clouds, and the Great Sea?" (Tecumseh, Shawnee Chief, response to white buyers in 1700's)

Readers are asked to submit questions concerning wetland ecology to:

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The editors reserve the right to edit letters for clarity and space.