

**Testimony of Marci Mowery  
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**Before  
The State House of Representatives  
Environmental and Energy Committee  
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The Audubon Council of Pennsylvania is pleased to testify before the State House of Representatives Environmental and Energy Committee on wetlands protection in the Commonwealth. These hearings offer an important opportunity to examine the need for stronger wetland protection

**Introduction**

The Audubon Council of Pennsylvania is a non-profit conservation organization with more than 26,000 members in the state of Pennsylvania. These members are dedicated to the preservation of our natural resources. The Audubon Council has devoted significant resources to public education on wetland values, and has worked with the Mid-Atlantic Regional Office of the National Audubon Society on its Wetlands High Priority Campaign.

Over 65 million adults enjoy watching and feeding wild birds. Nationally, Americans spend over \$5.2 billion on birding--\$2 billion a year on birdseed alone. In Pennsylvania this means retail sales of over \$256 million, with an economic impact of over \$453 million. This results in 6,040 employed Pennsylvania citizens.<sup>1</sup>

Protecting Pennsylvania's wetlands has been a high priority activity for the Council since its incorporation in 1987. The membership has voted it our number one issue annually since that date.

Before I begin, I would also like to introduce myself. My name is Marci Mowery, and I am the Executive Director of the Audubon Council of Pennsylvania. I came to the council after completing my master's degree in Geoenvironmental Studies--or the spatial relationship between man and his environment. While completing my masters, I held an assistantship with the Shippensburg Area Chamber of Commerce. I developed a number of projects while at the Chamber, but the one I would like to share with you today is my work on a comprehensive guide to industrial and commercial site locations for the Shippensburg region.

The site location guide proactively identified over twenty locations in the region which would be suitable for development, based upon infrastructure, soil types, hydrology, availability and other factors. This guide was and is used by the Chamber and the State for recruiting business into the Shippensburg

Region. This guide assured that economic development would occur without impact to the region's valuable natural assets.

I share this scenario with you for economic development and environmental protection (wetlands protection) are not mutually exclusive concepts. Time and time again environment is framed against economics, but as the example portrays, the environment can be protected as long as planning for future growth of an area exists.

## **Economics and the Environment**

In a 1994 study conducted by the Institute for Southern Studies<sup>2</sup>, entitled "Gold and Green," the fifty states were ranked on economic performance and environmental stress. The twenty economic indicators included annual pay, job opportunities, and business start up; the twenty environmental measures ranged from toxic emissions to spending for natural resource protection. *Those states that ranked high on environmental measures, also ranked high in economic indicators.* (Hawaii, Minnesota, New Hampshire, Oregon, Vermont, and Wisconsin) Conversely, those states which ranked low on environmental measures, ranked low on economics indicators ( Alabama, Kentucky, Mississippi, South Carolina, Texas, and West Virginia) ***This is not the first study to find a strong positive correlation between environmental protection and economic development.*** Incidentally, Pennsylvania ranked 21 on economics and 23 on the environment..

## **Wetlands Represent an Economic Gain**

Wetland protection goes beyond the debate of "Do wetland regulations hinder economic development" to the reality that wetlands are an economic gain. Well over half of all Pennsylvanians participated in wildlife associated recreation in 1991--wildlife that is dependent on wetlands for survival. These wildlife activities contributed \$2.5 billion dollars to the Pennsylvania economy.<sup>3</sup> Expenditures were mainly for equipment and travel--new money into the rural communities of Pennsylvania. (For more information relating to the monetary figures related to hunting, fishing and outdoor recreation, refer to Appendix A, "Valuing Wetlands, The Cost of Destroying America's Wetlands")

Wetlands and adjacent flood plain lands often form natural floodways that convey flood water from upstream to downstream points. Floods in Pennsylvania have caused millions of dollars in damage. Between 1972 and 1986, public assistance to help pay for flood damage averaged \$20 million per year--a fair share of money that could have been saved had the wetlands not been destroyed. This figure does not reflect the loss of life or human injury.

Wetlands improve water quality by removing suspended particles and dissolved chemicals, including pollutants. Tinicum Marsh in southeastern Pennsylvania removes nitrates and phosphates from Darby Creek, which receives sewage from many sources.<sup>4</sup> The Connertown Marsh near Girardville in Schuylkill County has treated acid mine drainage and raw sewage so

successfully that fish now live in the Shenandoah Creek for the first time in 100 years.<sup>5</sup> Wetlands remove pollutants from non-point sources, such as from agriculture, parking lots, highways and developed land. According to a 1985 study by E.H. Clark, an average of 53 million dollars per year is saved in water quality improvements associated with intact wetlands in the Mid-Atlantic Region.<sup>6</sup>

When the economic impacts of poor water quality are reviewed, we see that 53 million dollars is rather conservative.. For example, according to a study review published in the August edition of the Environmental Synopsis of the Pennsylvania General Assembly, the National Resource Defense Council found that Pennsylvania had fourteen beach closings in 1994, predominately due to high bacteria levels.<sup>7</sup> Similarly, twenty percent of Pennsylvania's surface water do not meet water quality standards. (USEPA) During the 1992-93 bathing season, 44 bathing areas in the PA State Park System were closed due to fecal contamination. Fish consumption advisories caused by toxic contamination have been issued for 22 state water bodies.<sup>8</sup> These figures are not conducive to promoting Pennsylvania's second leading industry--tourism, nor do they provide the quality of life sought by many companies looking to relocate.

Benefits of retaining water in wetlands where seepage occurs can also be expressed in terms of maintenance of in-stream flow and regulation of lake levels. The 1994 boating season realized 322,318 registered boats in the Commonwealth. This amounts to \$292 million in direct expenditures, and \$416 million on indirect expenditures. These indirect expenditures include fuel, lodging, meals, admission and entrance fees.<sup>9</sup>

The presence of wetlands does not necessarily limit development or decrease real estate value. Numerous examples exist of housing developments in which the wetlands were maintained by reducing lot size, performing cluster development, or by incorporating common open space. The protection of these wetlands has proven beneficial, both to the developer, who was able to ask a higher price for the lots and homes, and for the homeowner, who did not have the remedial effects of building in a wetland--subsidence, vermin, wet basements, and malfunctioning septic systems. The wetland also offered a natural and effect storm retention basin.

Again, I would like to emphasize that wetland protection can occur without impinging on economic gains.

### **Concerns Surrounding Current Proposals:**

In a recent address to the Pennsylvania Environmental Council (PEC), Governor Ridge stated, "Sound science, not simple speculation, will determine our regulations and policies."<sup>10</sup> The current legislative and administrative proposals on wetland protection do not reflect sound science.

In 1993 the U.S. Congress requested that the National Academy of Sciences provide an assessment of the validity of wetland definitions, present

knowledge of the structure and function of wetlands, and regional variations of wetlands. On May 9, 1995, the National Academy of Science released the findings of the committee set up by the National Research Council.<sup>11</sup>

## Hydrology

Current legislative proposals would "rewrite" the definition of wetlands to "...an area where water is found at the surface of the land for at least 21 consecutive days during the growing season in which delineation is made..." According to the Academy study, the threshold for duration of saturation can be approximated as 14 days during the growing season in most years, the depth of which should be evaluated is the upper plant rooting zone. The fourteen day duration threshold is provisional, and should take into account the length of growing season. (Pennsylvania's growing seasons range from 120 days to 180 days.)

A wetland has three characteristics--soils, water and plants. Hydric soils are anaerobic soils created by the presence of water. Hydrology is the presence of water, as addressed above. Hydrophytic vegetation is that vegetation which has adapted to the anaerobic growing conditions found in wetlands. A continuum of plants exists, ranging from those which live only in wetlands (obligate) to those which are normally found in wetlands to those which are found in upland.

Current legislative initiatives also propose an elaborate and costly (over \$20 million) classification scheme. This scheme--high, medium and low value wetlands--would determine which wetlands were afforded protection. According to the National Academy of Sciences, assessment of values requires comprehensive scientific knowledge of wetland functions, along with the use of methods from economics and other related fields. The study goes on to say, "It is not possible, however, to relate such categories in a reliable way to objective measures of wetland functions, in part because the relationships between categories and functions are variable and in part because we still have insufficient knowledge of wetland functions." This can be exemplified by a 1993 Philadelphia *Inquirer* story. After a country club filled in ten acres of wetlands to expand a golf course, nearby neighbors found their water no longer drinkable.

Under current wetland regulations, Pennsylvania is losing about 1,200 acres of wetlands per year--a large figure considering less than 2% of Pennsylvania's landmass is wetlands. If the proposed classification schemes were enacted, along with the 21 days of saturation, seventy percent of Pennsylvania's wetlands would be removed from protection.

Although some might argue that we have seen a net gain in wetlands, this gain has been in the area of ponds and open water. We will not argue the importance of these areas, but they do not serve the same function as swamps, marshes, bogs, vernal pools, etc.

## Classification

The Audubon Council of Pennsylvania is not opposed to mapping, but is opposed to the classification scheme. As the state moves forward on its GIS (Geographic Information Systems) mapping, the location of wetlands will be more readily available. We urge, though, that any inventory program that is undertaken not be linked in anyway to the regulation of wetlands. Even the most fastidious projects will miss some wetlands, and wetlands change over time.

## Mitigation

An emphasis on the use of mitigation as a solution to wetlands losses has been proposed by both the administration and the general assembly. Mitigation is a last resort--avoid, minimize, mitigate. Many of the proposed permits are for activities which are not water dependent, and therefore, should not be placed within a wetland.

When it is necessary to mitigate (such as in cases of road construction, water dependent projects, where there is a question of health and safety, or to insure a more successful mitigation of incremental small losses), mitigation should occur within the watershed and should provide similar functions as the destroyed wetland. To replicate these functions is a difficult task, because we often do not understand all of the functions performed by a wetland until after the wetland is destroyed. **Mitigation is the burden of the applicant, not the state.** just as the burden of automotive repairs to pass state inspection is the burden of the automobile owner. In a hierarchy of what constitutes mitigation, based upon chances of success, we propose restoration, enhancement (if function is not changed), creation. We do not believe that the purchase of wetlands constitutes mitigation--as the purchased wetlands are protected by wetland regulations, and purchasing wetlands does not promote the concept of "no net loss." The ratio of wetland replacement needs to be determined on a case-by-case basis.

## Compensation

The Audubon Council does not support the concept of "takings" as proposed, although we do recognize the need to compensate landowners through other methods. Takings protection is provided under the US Constitution, and in cases where all use of the property are lost, compensation does occur. But in most cases, the denial of a permit to develop a wetland does not eliminate all use of that land, and is therefore not a taking. All citizens of the commonwealth should not be expected to pay for the speculative purchase of land.

The council strongly supports tax abatements for wetland landowners, as is used in agricultural areas. Transfer of development rights could also be used, as well as easements.

We propose that the presence of wetlands be made part of the real estate disclosure. Although at first this might sound a bit overwhelming, I really do not believe it would be. Many homeowners may already be aware of the presence or absence of wetlands on their property, such as those residing in metropolitan areas. Many municipalities have delineated wetlands as part of comprehensive planning, and have these records and maps available. Each county has a soil conservation service, who have available soil maps which depict hydric soils, often an indicator of the presence of wetlands. Finally, a database or GIS map of wetlands delineated by the private sector, state, federal and local agencies, could provide the information needed for real estate disclosure without increased costs to the consumer.

### GP 15

Recently, the administration proposed a new general permit, GP 15, for the fill of up to one-half acre of wetland. **The Council is not opposed to general permits, but believes this general permit does not protect the public interest.** We can empathize with those private landowners who purchased land prior to wetland regulations, and who are now unable to build. If the GP is an attempt to pacify these landowners, than it should be limited to those subdivisions that existed prior to wetland regulations, either federal (1972) or state (1980). Any land purchases or subdivisions after the enactment of legislation, was done so knowing that development limitations would exist. (The speedometer on my car reads to 125 mph, but that does not mean that I can drive my car at that speed. I purchased the vehicle knowing that safety regulations would limit my use of the vehicle.) Additionally, the one-half acre size proposed by GP 15 is too great--a tenth of an acre fill would be sufficient.

In a conversation with one Lancaster County homeowner who fifteen years ago unknowingly purchased a home that was located in a wetland, he complained about the constant battle to keep his basement dry. The periodic flooding of his property has caused economic loss of items stored in the basement and outbuildings. The sump pump is known to work non-stop, and he has had to construct a raised basement floor above the existing floor to accommodate the water. As the amount of impervious surface surrounding his house increases due to upland development, the inundation increases. The homeowner stated that he is "Completely against building in wetlands."<sup>12</sup>

The cumulative impact of wetlands losses should not be forgotten. The carrion beetle can devour a carcass one bite at a time. We too can devour our wetland resource a quarter-acre at a time, until it is too late.

*To Some of our citizens  
a swamp or marshland is physically unattractive  
an inconvenience to cross by foot  
and an obstacle to road construction or improvement.  
However, to an increasing number of our citizens  
who have become concerned enough*

*about the vanishing wetlands I seek legislative relief,  
a swamp or marsh is a thing of beauty.*

*To one who is willing to risk wet feet to walk through it,  
a marsh frequently contains  
a springy soft moss,  
vegetation of many varieties,  
and wildlife not normally seen  
on higher ground.*

*It is quiet and peaceful  
-the most ancient of cathedrals-  
antedating the oldest of manmade structures.  
More than that, it acts as nature's sponge,  
holding heavy moisture and maintaining  
the water tables during dry cycles.*

*In short,  
marshes and swamps are something to preserve.*

From a 1976 Minnesota Supreme Court decision

The Audubon Council of Pennsylvania empathizes with the frustrations and delays that some applicants may experience when applying for a wetlands permit, but believe a rewrite of wetland regulations and general permits is not the answer. In the spring of this year, the DER introduced a SPGP that addresses some of the concerns addressed by permit applicants. We must allow this initiative time to determine if it has been successful. Legislative changes will not address the complaints regarding DEP staff or field offices--but adequate staffing, funding and training of staff will.

If the presence of wetlands were part of the real estate disclosure, we could avoid speculative interest in areas unsuitable for development. Tax incentives, transfer of development rights, easements, education, etc. are all methods to protect both wetlands and consumers.

The wetlands debate should not be framed around wetlands protection, as wetlands are an important part of the health and economic well-being of the state. Instead, the message should be the need for planning. You wouldn't build a house without a blueprint--likewise, you shouldn't develop an area or the state, with out a plan.

## Endnotes

- 1 *Bird Migration Thrills Millions, Boosts Economy, But Loss of Habitat Threatens Many Popular Species and Rapidly Growing Industry*, Fish and Wildlife Service, May 1995.
- 2 *Study Disproves "Jobs vs. Environment" Myth: States Ranked on Economic and Ecological Health*, Institute for Southern Studies, October 1994.
- 3 Personal Discussion
- 4 *Saving Wetlands: A Citizen's Guide for Action in the Mid-Atlantic Region*, National Audubon Society, 1993.
- 5 Ibid
- 6 *Valuing Wetlands: The Cost of Destroying America's Wetlands*, National Audubon Society, 1994.
- 7 *Environmental Synopsis*, Pa General Assembly, August 1995.
- 8 *POWR News*, Summer 1995.
- 9 *Registration Season Review*, Pennsylvania Fish and Boat Commission, 1994.
- 10 *Time to Target and Retool...Not Retreat*, Remarks by Governor Tom Ridge at Pennsylvania Environmental Council Annual Dinner, May 1995.
- 11 *Wetlands: Characteristics and Boundaries*, National Research Council, 1995.
- 12 Personal Communication