

## **Majority Recommendation: Continue mute swan population reduction.**

We believe that the mute swan is an environmental hazard to the Chesapeake Bay ecosystem and that the Department of Natural Resources should continue to reduce the feral mute swan population. It should be the objective of the Department to reduce the mute swan population to as low a level as can be achieved.

1. The mute swan is a non-native bird that was accidentally introduced into the Chesapeake Bay ecosystem.
2. Mute swans are a clear and formidable threat to native wildlife species in Maryland, particularly to ground nesting colonial birds which are undergoing population decline, in some cases into threatened and endangered status.
3. Mute swans feed aggressively upon Chesapeake Bay submerged aquatic vegetation and can have substantial detrimental impacts to this already stressed resource and hinder its restoration.
4. The laws of the State of Maryland (NR Article, Sec. 10-211) require the Department of Natural Resources (hereafter Department) to control Maryland's mute swan population.
5. The lethal control efforts which the Department has undertaken to reduce mute swan numbers have been effective and humane.

### **A THREAT TO NATIVE WILDLIFE**

The mute swan is one of the world's most aggressive species of waterfowl. In Maryland, aggressive mute swan pairs have become a nuisance, preventing people from using shorelines where swans vigorously defend their nest and young during the breeding season. However, it is the effect that their aggressive behavior has had on native wildlife species that is the greatest cause for concern. There are numerous reports of mute swans hazing and driving off other birds, including native tundra swans.

Mute swans are responsible for the decline and loss of the northernmost nesting colony of black skimmers in the Chesapeake Bay. Restoration of this and other declining native birds simply cannot be accomplished in habitat they must share with mute swans. The inherent contradiction of any argument over how many swans is "too many" is that a single mute swan pair that displaces a declining native species may be too many.

### **A THREAT TO THE CHESAPEAKE ECOSYSTEM**

Mute swans are voracious feeders on the Chesapeake's submerged aquatic vegetation (SAV). The diet of mute swans consists nearly entirely of SAV. An adult mute swan eats an average of eight pounds of SAV daily. SAV is both an important ecosystem in itself

and an important nursery area for the fish and crabs that are critical to the Chesapeake Bay estuary. SAV has declined throughout the Bay because of water quality impairment. When the mute swan population neared 4,000 animals, it has been calculated in published literature that mute swans could consume nearly 10% of all SAV each year, further stressing a habitat already well below its restoration goal. Clearly, without continued controls, mute swans are a threat to the native grass beds that remain.

Most waterfowl eat some SAV, but native species, with a few exceptions, are seasonal (fall-winter-spring) visitors to the Chesapeake Bay and consume SAV during its dormant time after seeds have been released. However, mute swans feed on SAV throughout the year, including during seed set. This lowers the potential for re-growth or expansion by these ecologically valuable plants.

Restoration of SAV is a major goal of the Chesapeake Bay restoration effort. Unfortunately, only 42% of the agreed upon goal of 185,000 acres has been achieved. The Bay states agreed to meet this goal by 2010. Various techniques have been experimented with to plant SAV. In some cases, SAV plantings have been destroyed by relatively few mute swans, necessitating the installation of fences in the restoration design – a feature that makes the restoration plot both more costly and smaller.

In addition to calling for the restoration of the Bay's SAV, the Chesapeake 2000 Agreement among the states and federal government calls for control of damaging exotic species. Six problematic species were identified and the mute swan is one of them. Therefore, Maryland is under an obligation to effectively control mute swans.

#### AN EXOTIC SPECIES

While opponents of lethal control of mute swans have continually cited various reasons for their purported belief that the mute swan is native to North America, there is no serious scientific debate upon the subject. The mute swan is clearly an exotic species, and today's population grew directly from a few birds that escaped captivity in 1962. While being an exotic does not necessitate being a harmful or invasive species, it does set aside claims that it is deserving of Threatened, Endangered, or any other special conservation status.

#### NOT A NATURAL RESOURCE

There is no good biological reason for maintaining a feral population of mute swans. As long as there is a pair of mute swans capable of reproduction in the wild there will be a need for the Department to continually monitor them and prevent them from re-establishing a larger and more ecologically damaging population.

Moreover, the contention that Maryland residents would somehow be deprived of their rights to enjoy viewing mute swans does not withstand logical examination. Marylanders may enjoy viewing elephants, crocodiles or pandas, but they do not suffer from having to go to contained facilities to watch them. There is no inherent right to unlimited access to animals even on private property if they present an ecological, economic, or safety threat to persons or property, much less a right to maintain a menagerie on public lands or

waters. There are provisions for privately maintaining non-breeding pairs under controlled conditions. Marylanders can observe our native tundra swans and a variety of other waterfowl during the winter months.

#### NOT A “SCAPEGOAT”

There is no single cause for the decline of the ecological integrity of the Chesapeake estuary. It is a combination of many factors, some small and some large, each playing a part in degrading the Bay. Excess nitrogen and phosphorous from farms, sewage treatment plants, and air emissions cause eutrophication and subsequent ‘dead zones’. Impervious surfaces in headwaters cause stream bank erosion and siltation. Toxic chemicals occasionally make fish dangerous to eat. And invasive species, including the mute swan, nutria, the rapa whelk, and many other species in this category, put additional pressure on an already stressed system and the native species that must inhabit it. Each of these factors requires a solution and no single solution will cure them all. However, to suggest that only the largest of the watershed’s myriad ills is worth society’s efforts to solve them is not sensible. It is possible to address multiple stressors, regardless of magnitude of each, simultaneously.

The contention that Maryland is using the mute swan as a ‘scapegoat’ for the various challenges facing the Chesapeake Bay restoration effort that State and Federal Agencies have not been able to solve is not credible. Beside the fact that mute swans have been scientifically shown to be a threat to SAV and native wildlife, the same agencies are committing huge amounts of effort to solving pollution, siltation, and, most notable, other invasive species. Nutria control alone costs nearly \$ 1,000,000.00 per year in Maryland, more than ten times the highest-ever annual cost of mute swan control.

While the mute swan is not the Chesapeake’s greatest threat, years of study and experience in Maryland and elsewhere in North America have proven it to be a serious one. Moreover, it is a threat that the Department has come remarkably close to actually resolving. Bringing the population of mute swans from nearly 4000 to about 500 today - an 80% reduction - is a substantial achievement. Bringing that number even lower – to a level that can be controlled for the long-term with minimal manpower and capital expenditure – would be an almost singular event in the checkered history of the Chesapeake Bay restoration effort, because it would effectively end the damage.

#### THE EVIDENCE IS COMPELLING

The body of scientific evidence that has been assembled in order to make this decision is clear and compelling. In our deliberations on this issue we examined the literature that was used to construct the original Maryland Mute Swan Management Plan and reviewed the work that has been conducted since the plan was issued in 2003, including work conducted here in Maryland. We are confident that a clear case has been made that the mute swan is a serious ecological liability in Maryland.

#### A COMPETITOR FOR SCARCE DNR RESOURCES

Every mute swan activity that the Department undertakes – whether it is monitoring the population, adding eggs, killing adults, or responding to public complaints and inquiries

– takes important resources away from the conservation of native wildlife species and habitat conservation projects that are desperately needed. It would not be responsible for the Department to continue to allocate substantial limited resources to maintain the current large population of birds. A continuing feral mute swan population level near the current (approximately) 500 birds would be a constant and perpetual source of competition for scarce conservation resources.

## THE LAW

The law of the State of Maryland is crystal clear in regard to the mute swan:

### **§ 10-211. Population control of mute swan**

(a) *Program established.*- The Department shall establish a program to control the population of the nonnative bird species known as the mute swan.

That the intent of the legislature was that the control program should include lethal control of adult swans is shown by the following section:

(b) *Scope of program.*- The program established under this section, where appropriate, may include:

- (1) The managed harvest of adult mute swans; and
- (2) The solicitation of licensed hunters to participate in the managed harvest of adult mute swans established under this subsection

[2001, ch. 679]

The Department (correctly in our view) chose to use an integrated approach of removing adults and egg addling by wildlife professional staff rather than managed harvest (hunting) to reduce mute swan numbers to their current level. This should remain the strategy going forward.

## A HUMANE SOLUTION

The Department's lethal control operations in the mute swan control effort have been guided by the American Veterinary Medical Association's (AMVET) Guidelines for Humane Euthanasia which incorporates the best available definitions of what constitutes a humane procedure. It is the same set of criteria that is used by animal shelters throughout the country. We believe that the lethal control effort that the Department has conducted has been humane, as well as safe and effective.

It has been demonstrated that egg addling alone is insufficient to halt the growth of a mute swan population in North America because the adult swans are long-lived (25 years) and 100% addling cannot be achieved. Department staff demonstrated through a straightforward model that using lethal control to maintain a population of 500 adults would result in more swans being killed over the long term than if the swan population was reduced to as low a level as can be achieved. In other words, the continuing aggressive reduction of the current population will result in fewer swans being killed over the long term than attempting to maintain the current population. Ending lethal control

would lead to rapid population growth that would ultimately mean that more mute swans would have to be killed to maintain a population level of 500 swans.

The Department has been very successful in reducing Maryland's mute swan population in accordance with humane standards, scientific findings, the laws of Maryland, and the best interest of the Chesapeake Bay ecosystem. We believe that it is very important for this population reduction effort to continue to reduce the mute swan population to as low a level as can be achieved.

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