



The Middle Creek Story

An Historical Perspective



Tundra Swans

Located along the border of Lebanon and Lancaster counties, about 80 miles northwest of Philadelphia, the Pennsylvania Game Commission's Middle Creek Wildlife Management Area is a prime destination for wildlife and folks who care about wildlife and wild places. It was built for waterfowl, at a time when Canada geese were in less than desirable numbers in the Commonwealth, particularly in the east. But over time, it has become so much more for myriad wildlife species and countless Pennsylvanians and tourists.

Traveling to Middle Creek, you'll quickly notice it seems to be in the middle of nowhere. Nestled in farmlands south and east of the Appalachian Mountains on Triassic Lowlands, a point can be made that Middle Creek has been returned somewhat to its prehistoric roots. More than 200 million years ago, waters of what would become the Atlantic Ocean inundated Middle Creek. But Middle Creek's past really didn't influence its creation, excepting that its soils did provide a great place to build a large impoundment or dam. The choice to build at Middle Creek had more to do with land availability, composition and price, an incredible funding opportunity and the convenience it provided to the waterfowl hunters who asked for it.



Lesser Scaup

The creation of the state's first waterfowl refuge at Pymatuning Reservoir in Crawford County on the Ohio-Pennsylvania border in 1935 – jumpstarted with transplanted Mississippi Flyway Canada geese to create a resident population – would within 30 years create waterfowl hunting opportunities that couldn't be found anywhere else in Pennsylvania. By 1962, the Game Commission was holding drawings for 40 hunting blinds at Pymatuning. The experiment was an unparalleled success. But Pymatuning was a distant outpost for a majority of Pennsylvania's hunters, who then lived in the state's southeastern counties. They asked the Game Commission for a "Pymatuning East," and the agency went to work with \$5 million in financial backing from Project 70, a \$70 million bond issue to state and local governments to develop community recreation and conservation programs, and funding from the federal Land and Water Conservation Act.

Middle Creek was one of three locations considered by the Game Commission, and, in the beginning, it wasn't the frontrunner. A large swamp south of Quakertown in Bucks County was favored because it was closest to Philadelphia. But land prices were prohibitively expensive and soon forced the agency to focus on two properties north of Quakertown. Today, the Quakertown swamp is considered the largest freshwater inland swamp in southeastern Pennsylvania and it's a blessing that this critically-important ecosystem remains intact.



Along Hopeland Road

The other site under consideration for the new waterfowl management area would have encompassed the Little Swatara Creek near Mt. Aetna, which is about 10 miles north of Middle Creek in Berks County. This area, however, didn't have sufficient adjacent wetlands, nor was there enough area available to support what was desired. So Middle Creek became the last remaining candidate. It was, however, ecologically and hydrologically better suited than the other sites.

Fieldwork by the Lebanon County Conservation District had concluded that Middle Creek's flow could support a 400-acre impoundment and the Game Commission already had holdings on the area's adjacent Furnace Hills. This was State Game Lands 46, about 1,800 acres acquired by the agency between 1929 and 1934. So, the Middle Creek site was close enough to the large number of hunters in the Southeast who wanted it and the site had more than adequate habitat and hydrogeology. It also would not inundate "Class 1" farmland, another important concern. Although politics and affordability had helped influence selecting Middle Creek, the plan seemed to be ecologically sound and pragmatic.



Canada Goose

The Middle Creek plan called for 63 families to be displaced and Governor William Scranton granted the agency eminent domain powers to acquire these properties. The Game Commission began buying Middle Creek land in 1965; it set up an office on Valentine's Day in 1966. Many landowners willingly sold their properties in '65 and '66. Others refused and the agency began to use "eminent domain" procedures in 1967 to condemn their lands. Four property owners fought the condemnation proceedings in court, losing in county court and then losing again in the state Superior Court. Three of the owners subsequently negotiated with the Game Commission and sold their properties. The fourth landowner eventually lost his property through eminent domain, but was compensated for his loss. Land acquisition was completed in 1972.

Litigation delayed development of Middle Creek's largest body of water, what would become a 360-acre impoundment (according to current GIS mapping), and increased the wildlife management area's overall cost. But, the Game Commission received a windfall from Project 500, another bond issue for recreation, historical, conservation and reclamation projects. Under Project 500, the agency spent \$2.6 million of the \$21.8 million allocation it received on Middle Creek. It took some of the sting out of the additional costs.



Ring-necked Duck

Converting this farming area into a waterfowl paradise took some planning and was spread out over several years. The land and its sub-surface were well suited to accommodate the transformation, so it was a matter of selecting where to make places to hold water and then making it happen. In 1966, several ponds were dug and an 80-acre Canada goose holding pen was built along Hopeland Road in front of what would become the Visitors Center. A second goose holding pen was built in 1967 in the northeast section of the Middle Creek property. The agency wanted to establish a resident Canada goose population on the area as soon as possible, so it imported 15 pairs from Pymatuning for each of these holding pens to launch a resident goose population.



Establishing a resident Canada goose population at Middle Creek was of paramount importance to the Game Commission to satisfy hunters and immediately justify Middle Creek's development. The project was garnering terrific attention, but its progress had been slowed by the legal challenges. So, wherever progress could be made, it was. Properties were razed and fields contoured. Dikes were built to create or fortify wetlands. Farm ponds were customized and other small dams and potholes were built. By 1971, Middle Creek's nucleus of lands had been secured and construction on the main impoundment moved forward in earnest. By December that year, the dam was gated and the impoundment began to fill. Water flowed over its spillway on January 30, 1972.



Construction of the Visitor Center began in 1971 and was completed the following year. It opened in 1973. Situated on a hill west of Hopeland Road overlooking the main impoundment, the one-story rustic center was designed to educate students and help visitors better understand wild birds and wildlife management. It offered a great vista of the impoundment, a lecture room and taxidermic displays of waterfowl and birds of prey – even an extinct passenger pigeon. It quickly became a learning center for people looking for more information about migratory birds and the Game Commission's varied programs, and eventually an almost mandatory destination for pupils in neighboring and, occasionally, distant school districts.

Upon its completion in 1973, Middle Creek's future was unknown. There were no guarantees it would develop a resident Canada goose population, or that it would be any more significant to waterfowl than nearby decades-old Lake Ontelaunee, or the yet-to-be-built Blue Marsh Lake. It was a "Field of Dreams" approach to waterfowl conservation: "If you build it, they will come." Of course, Middle Creek would provide recreation, such as fishing, birdwatching, canoeing, hunting and hiking, as well as serve local educators well and provide conservation programming for Pennsylvanians. But there were no assurances that Middle Creek would ever be the thriving "Pymatuning East" it was envisioned to become; just a lot of hope and promise.

Still, Middle Creek had a lot going for it. With its reshaped lands, exclusion of traffic and people from much of the area, nesting structures and an emphasis to further improve habitat, Middle Creek grew on wildlife. It wasn't utopian, but it was an oasis amid southeastern Pennsylvania's growing sprawl, had plenty of elbow room and seemed to align with the migratory flyways. Wild birds and other wildlife capitalized on or gravitated toward Middle Creek as soon as the drone of development subsided on the property. It wasn't overnight, or a squatter's rush, but Middle Creek's expanding biodiversity and increased surface waters became magnets to many creatures. Some came for food, habitat or refuge. Others followed prey. But they came and kept coming.





Snow Geese

Canada goose numbers, both migrants and residents, throughout Pennsylvania grew in the early '70s; the Game Commission also trapped and transferred residents to areas deficient of geese both within and out of state. Controlled Canada goose hunts were held at Middle Creek beginning in 1974. A drawing was held to select 25 hunters to use the 25 corn-shock blinds that were placed on the grounds. Each selected hunter could bring up to three guests. Pit blinds were built four years later, and continue to be used today.

Atlantic Flyway Canada goose populations continued to grow steadily through the 1980s and into the early 1990s, a trend that would eventually require intervention. In 1995, an annual resident Canada goose hunting season was established statewide in Pennsylvania. Having too many geese creates an unfavorable situation for both people and wildlife, particularly in suburban, urban and recreational areas.

Middle Creek's improving habitat and growing population of resident Canada geese helped lure Atlantic Flyway transients to its waters. With each passing year, more and more wild ducks began to utilize Middle Creek, especially during spring and fall migrations. Migrant tundra swans turned up on the area for the first time in early 1976, when a dozen stopped over. Snow geese began appearing by the dozens, then hundreds about the same time.

Snow geese slowly seemed to be adjusting their route north to include Middle Creek. From the late '70s to the early '90s, snows would descend on Middle Creek in numbers ranging from a couple hundred to 1,500. Then, in 1995, their numbers were estimated at 50,000. The next year, they doubled to 100,000. In 1997, an estimated 150,000 sojourned there. Since then, the best years for snow geese have been punctuated by gatherings of 170,000 or more.



Bald Eagle

Tundra swans, however, didn't take a back seat to snow geese. Their numbers also increased annually. Swans at Middle Creek number 14,000 to 15,000 in good years, and 5,000 or less in off years. Weather and ice conditions and other climatic factors influence the numbers of swans Middle Creek attracts annually. When they really roll into Middle Creek, up to 25 percent of the continent's eastern population may be present.

The chance to see snow geese and tundra swans in almost unimaginable numbers became an instant draw for Middle Creek in early March. So, too, did its nesting bald eagles. The first bald eagle – an immature – was spotted in 1974. Eagles have appeared at Middle Creek every year since then. In 1979, a five-week old eaglet was placed in a holding pen at Middle Creek. The eaglet was hatched at the Patuxent Research Center from an egg taken from a Pymatuning nest. The eaglet hung around Middle Creek for about a week after its release and never returned.



Snow Geese

In 1998, a pair of bald eagles created a stir at Middle Creek when they built a nest on a southern shoreline of the main impoundment. A year later, the nesting pair hatched and fledged one young. Since then, the nest has contributed to the bald eagle's remarkable recovery almost annually. Today, bald eagles are a principal attraction at Middle Creek. On any given day, a birder or visitor has a great chance of seeing a bald eagle over or in the vicinity of the main impoundment.

There also are good seasonal opportunities to see northern harriers, short-eared owls, ospreys, and year-round residents such as red-tailed hawks, Cooper's hawks, great blue herons and Canada geese. Of course, Middle Creek was developed with an eye toward helping Canada geese establish residency in Pennsylvania. With help from Pymatuning in the west and trap-and-transfer in the state's heartland in the 1970s, the Canada goose's comeback in Pennsylvania exceeded expectations.



Bobolink

Snow geese also have had that sort of impact in the Atlantic Flyway and on their arctic nesting grounds. In the 21st century, snow geese numbers have increased to numbers that are taxing the historic ecosystems they depend on to nest, migrate and winter. Sometime around 1970, snow geese began foraging more on agricultural crops and less on the wetland vegetation and grasses associated with coastal marshes. The more nutritional farm crops made them heartier and more productive, reducing mortality and increasing recruitment. This snow goose transition to agroecosystems, which spanned a couple decades, helped to make Middle Creek, with its sharecropping, seasonal mowing, neighboring farmlands and large impoundment a desirable destination and staging area for snow geese heading north.

Interestingly, the coming of snow geese also has spurred an increase in seasonal visitors to Middle Creek. These are not the thousands of students who come to the Visitors Center for programs or tours, nor the daily hikers or bikers or birders. Rather, these are tourists and families on daytrips who want to experience the awe of snow geese. It's a substantial departure from the relative tranquility visitors encounter at Middle Creek at other times. But the great excitement caused by tens of thousands of snow geese moving as one and sharing those mesmerizing moments with people who genuinely appreciate them makes it all memorable. And, well worth returning to see again.



Grasshopper Sparrow



Horned Grebe

Although Middle Creek has seen many habitat enhancements – some seasonal, some not – over time, much of its original framework – such as dikes, wetlands, ponds, grasslands, road network, crop rotations, propagation areas – remain intact. The system of dikes help Middle Creek's managers maintain surface waters at depths that best serve Middle Creek's native fauna and flora. Some of the beneficiaries of this management include a great blue heron rookery, bobolinks and meadowlarks, short-eared owls and northern harriers, white-tailed deer and wild turkeys, and a wide variety of wild ducks and shorebirds.



Tundra Swans

Middle Creek in 2010 was designated as a Globally Significant Important Bird Area, because it hosts annually a large percentage of the continent's population of snow geese and tundra swans and provides critically important migratory stopover habitat. It is one of two such sites in the state. The other is Clarion County's State Game Lands 330 — also know as Mount Zion, or the Piney Tract — which provides critical habitat for grassland nesters on 6,466 acres. Both have been indentified as globally significant sites for their almost irreplaceable value to birds worldwide. Middle Creek also is recognized for having exceptional concentrations and diversity of birdlife; about 280 species of wild birds, including 23 species of overwintering waterfowl, have been recorded there.

Middle Creek's allure to tundra swans is galvanized not only by its secure roosting area, but also by the winter wheat and harvested cornfields found on private agricultural lands around of the wildlife management area. Protection of those farm fields is considered paramount to the tundra swans that gather at Middle Creek in late winter. If sold and developed, those lands — and ultimately Middle Creek — would lose their appeal to tundra swans. That's why the Middle Creek Initiative was started by the Lebanon Valley Conservancy, a partnership of the Lebanon Conservation District, Lebanon County Planning Department and the Pennsylvania Game Commission, which aims to protect from development these critically-important farmlands through permanent conservation easements that will keep these fields in agricultural production. Some already have been lost to housing developments.



Great Blue Heron



Meadow Vole

Middle Creek also has been designated as an Important Mammal Area, because it is a unique habitat with a predator-prey complex consisting of meadow voles, northern short-tailed shrews, red foxes and eastern coyotes. Although none of these are uncommon in the state, such large, functional systems occurring without the intrusion of human disturbance in the form of fragmentation, are

uncommon. Middle Creek's habitat is a mosaic of extensive soggy old fields that are becoming increasingly uncommon in the state, with woodlands, cultivated and fallow fields and old red cedar. This distinction also was awarded because Middle Creek has an established educational program that interprets the natural history of its resident mammals.

Yes, Middle Creek has been a magnet for and a sanctuary to many struggling species of animals and plants since its creation. It is proof positive that great habitats can and have had worldly significance and are a fundamental base for any wildlife community. But nothing that fosters life lives without compromises and threats. Middle Creek is no exception.



Phoebe



Invasive plants – mile-a-minute weed, purple loosestrife, multiflora rose, autumn olive – have altered Middle Creek’s habitat and continue to challenge the limited manpower Middle Creek has at its disposal. Herbicides, prescribed burnings and cuttings are used to maintain Middle Creek’s balance and blend of habitat. However, snuffing out invasive plants on a 6,254-acre property, is a never-ending battle. A land’s ability to sustain a diversity of wildlife is greatly influenced by its vegetative cover. And indigenous plants intuitively promote greater wildlife diversity. So it stands to reason that encroaching exotic species should be yanked, cut or sprayed whenever encountered to avoid groundswells that smother native plants. But it’s just not that easy.

Managing Middle Creek is a complex operation that involves managing land uses; land cover; water levels; sedimentation; changes in wildlife populations and patterns; financial, manpower and equipment limitations; seasonal changes and weather events; and people. For people, there are facility needs; road and safety concerns; programming; hunter and hunting management; volunteer coordination; and other duties. From a research perspective, there are annual waterfowl banding objectives; nest box surveys; migration counts; and trap-and-transfer initiatives.

Since its creation, three men have undertaken the incredibly demanding job of managing Middle Creek: Charlie Strouphar, Ed Gosnell and Jim Binder. All have endeavored to make Middle Creek better for wildlife and the people who visit. Charlie was there from the first day until he retired in 1989. Ed managed Middle Creek from 1989 to 1997. Jim has been at the helm since then.



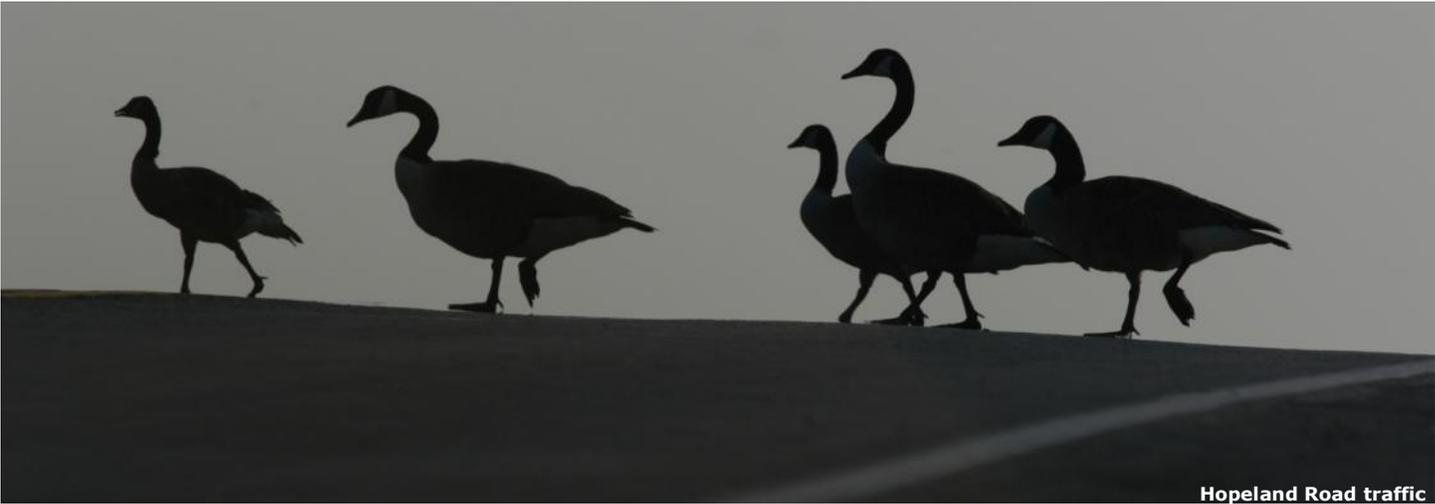
Lesser Yellowlegs



Black Duck

All of these men, and their Food and Cover Corps crews, with oversight from the Southeast Region Office in Reading, have helped to ensure Middle Creek continues to repel unwanted and encroaching land-use changes. This management area remains a model of conservation consistency and ecological efficiency as time passes and the outside world nips at Middle Creek’s borders and tranquility. It isn’t easy to maintain an island of habitat while features on the surrounding landscape have changed dramatically. But with vigilance, hard work and great defense, Middle Creek’s managers continue to hold the line. The demands on Middle Creek are increasing. Maintaining its value to the continent’s migratory birds and local biodiversity only will be as successful as the defense and maintenance of Middle Creek’s controlled and specialized habitats. It remains an ecosystem extraordinaire. But only as long as Middle Creek receives the annual care and protections that currently preserve its completeness.

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Hopeland Road traffic



Redhead



Northern Shoveler

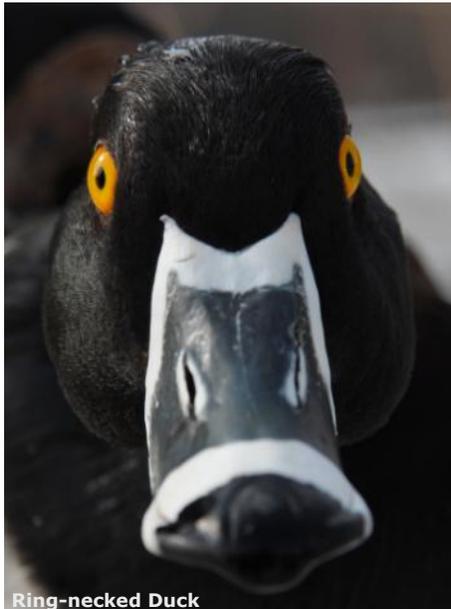


Barn Owl

Connect With Wildlife at Middle Creek!



Canada Goose



Ring-necked Duck



Ring-necked Pheasant



Photos and story by Joe Kosack
Pennsylvania Game Commission
Connecting you with wildlife!

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