

HISTORY OF THE DEPARTMENT OF FORESTRY AND ENVIRONMENTAL
RESOURCES AT NORTH CAROLINA STATE UNIVERSITY, 1979-2008

VIII. COLLEGE (SCHOOL) FORESTS

Ever since its inception in 1929 the forestry program at NC State has been actively involved in managing forest lands on a number of different properties, including the Hofmann, Hill, Goodwin, Hope Valley, Schenck, Hosley, Lee, Taylor, and Gates County Forests. The largest of these, the 81,000 acre Hofmann Forest in Onslow County, is owned by the Endowment Fund, Inc. of NC State and managed by the NC State Natural Resources Foundation, Inc.¹ It will not be discussed as Bob Kellison is undertaking an update of the Hofmann Forest history completed by Ted Miller in 1970. Of the other properties, 3 (Hill, Hope Valley, Schenck) and 98 acres of another (Goodwin) are owned by the State of North Carolina and assigned by the Department of Administration to the College for management purposes. The bulk of the Goodwin (1,155 acres) and the Hosley (255 acres), Lee, (127 acres), Taylor (118 acres), and Gates County (3809 acres) are owned and managed by the NC State Natural Resources Foundation.

As these properties came a departmental responsibility, an incumbent faculty member, first George Slocum and then Ralph Bryant, filled the role of forest manager while carrying out their other duties. Since the late 1960s, however, the Department has had a faculty member whose primary duties were to serve as Forest Manager and to whom management of the College Forests was delegated. Larry Jervis filled this position from 1968-2001 and Joe Cox replaced Jervis in late 2001. From the late 1970s rotating resident caretakers, usually recently-graduated students, served as on-site caretakers at the Hill Forest. A permanent caretaker position was created in the mid-1990s. The position was filled for 2 years but was not refilled when the first incumbent left. In 2002 a position of liaison silviculturist was created and an additional liaison silviculturist position was created in 2003. These positions are funded partly from receipts from the Piedmont Forests and partly by funds from the NC Natural Resources Foundation. Jimmy Dodson filled the first liaison silviculturist and lives at Slocum Camp. James Rogers filled the second position and lives in Raleigh, and has an office in the new Jordan Hall. These two persons assist the Forest Manager in the management of the Hill, Hope Valley, and Schenck forests; the Department has no resident presence on the other 4 forests.

In 1979-80 a College Forest Advisory Committee was created to provide the Forest Manager with a sounding board for his ideas and to provide advice and recommend policies to the Forest Manager, the De-

¹ The North Carolina Forestry Foundation, Incorporated changed its name to NC State Natural Resources Foundation, Inc. on July 1, 2008.

partment Head, and the Dean. Several faculty members, notably Doug Frederick as chair, Rich Braham, Bill Gardner, Dennis Hazel, Dick Lancia, and Joe Roise have served on the Committee for many years and have made invaluable input into management of the Forests. At present the Advisory Committee provides input only on management of the Hill, Hope Valley Forests.

The Forest Manager is responsible for all management activities, including timber sales, on the College-managed forests. Prior to 1990, all income from the State-owned forest lands was treated as appropriated funds (i.e. had to be spent in the year in which it was earned) and deposited in a College Forest account. Small amounts of unspent funds could be carried over into a new fiscal year but the majority of any unspent funds reverted to the State treasury. Income from the Foundations lands were, of course, never subject to the same constraints that pertained to revenues from the State-owned lands.

In 1990 the General Assembly passed legislation that allowed revenues from the state-owned College Forests to be retained in a Trust Fund and used for "forest-related research, teaching, and public service programs." Passage of this legislation allowed for long-range fiscal planning and provided for much more realistic management of the State-owned College Forests. Currently, revenues are deposited into 4 different accounts: 1) a College Forests Trust Fund used for deposits of all revenues from the Schenck, Hill, Hope Valley, and State-owned portions of the Goodwin Forests and for payment of all expenses on those forests; 2) a Goodwin Forest Income Account where all revenues from the Forestry Foundation Goodwin Forest lands are deposited and from which all expenses and scholarship awards are made; 3) a Hosley Forest Income Account used as a depository for all revenues and for payment of all expenses for that Forest; and 4) a Schenck Forest Maintenance Fund which is an endowment, interest-earning account used for support of Schenck Forest.

Although the majority of the acreage occupied by the Hill, Hope Valley, and Schenck Forests had been reached by 1979, slight changes in acreage have taken place since. The Hill Forest, located in northern Durham County, was created in 1929 with a gift of 378 acres from George Watts Hill. Subsequent gifts and purchases, mostly during the 1970s, had increased its size in 1980 to 2200 acres. Since then 237 acres have been added by purchase and condemnation so that the Forest now comprises 2437 acres.

The Schenck Forest is located about 3 miles from campus in the northwest sector of Raleigh. Its name derives from the fact that Carl Alwyn Schenck's ashes were sprinkled there after his death in 1953. It was obtained in 1936 via a transfer from the North Carolina Prison Department and was, in 1980, 245 acres in size. In 1999 33 acres were transferred from the Department of Corrections (DOC) to the College for inclusion in the Schenck, and in 2006 the DOC transferred another 20 acres to the College. The College currently has a Memorandum of Understanding with the Department of Transportation to manage the

property DOT acquired while planning construction of the Duraleigh Connector project. This property is approximately 42 acres in size and the College is pursuing having this property permanently allocated to it. The college is also pursuing purchasing an additional 2 acres north of the Duraleigh Connector that was donated by the City to the State for the Duraleigh Connector. If these last two properties are acquired, the size of the Schenck Forest would then be 342 acres.

The Goodwin Forest, located in Moore County, originated with a gift in 1967 of 1120 acres by James L. Goodwin. The land had been managed for timber for 36 years prior to Mr. Goodwin's gift and, under the terms of his will, revenues derived from the Forest were to be used for "a scholarship fund in forestry." Several purchases, the most recent in 1998-99, added 100 more acres to the Forest. In 2005, the North Carolina State Natural Resources Foundation purchased the last interior property, except for two residential properties. This purchase added 92 acres and was purchased using funds from the sale of a gas line right of way on the Hofmann Forest. The Goodwin property now totals 1347 acres in size.

The Hope Valley Forest was acquired in 1941 by the University through quit claim deed from the US Department of Agriculture. It was originally 1734 acres in size, but when the B. Everett Jordan Dam and Reservoir were proposed in the middle 1960s then Dean Richard Preston negotiated an agreement under which the Federal Government paid \$1.179 million for 1412 acres that were included in reservoir lands. Not a bad deal, considering that the land was a gift from the Federal Government to begin with! This payment was deposited in a trust fund which the College, with approval of the NC Rural Rehabilitation Corporation, used to purchase land for inclusion in its other forests or for construction on those forests. Thus, in 1980 the Forest consisted of 345 acres. There has been no change in its size since but as of 2007 sale of the property to the NC Wildlife Resources Commission is being considered. Receipts from the sale would be used to build a new dining and kitchen facility on the Hill Forest, and the balance of the proceeds would be used to create a scholarship endowment fund to benefit students from rural NC wishing to attend the College.

It is important to note here that the majority of the acreage added to the Hill and Goodwin Forests since the mid-1970s has been bought with the money derived from sale of Hope Valley Forest lands back to the Federal Government. In addition, a significant part of the construction of new facilities and utilities at the Slocum Camp on Hill Forest was also supported by these funds. What at the time might have seemed to the College to be a serious loss of forest land has turned out to be a most serendipitous event.

An interesting sidelight to land acquisition at the Hill Forest involved the tobacco leases that were attached to some of the land purchased in the 1970s. Tobacco allotments at that time were a valuable commodity and could be bought and sold on the open market. Of course, inasmuch as the Department was not in the business of raising

tobacco, our allotments sat idle. Larry Jervis was approached off and on to see if we were interested in selling the allotments; our answer was always no. One night in the spring of 1983, Jervis called Cooper at night to let him know that he (Jervis) had just had a call informing him that we "had better put our allotments up for sale" or he (Jervis) might personally regret it. Jervis and Cooper met the next morning and decided that prudence should rule and the allotments were put up for sale by the University. The College Forests derived \$34,588 for them.

The Hosley Forest, was a 255-acre gift from Mr. Wilfred Hosley in 1994. It is 46 miles northeast of Raleigh in Franklin County and consists of about 200 acres of even-age loblolly pine, now approaching 25 years in age, as well as a well-developed flood plain forest.

The 127 acre Lee Forest in Johnston County near Clayton was transferred to the Endowment Fund of NC State in 2007 upon the death of the donor. The original intent of the bequest was that the forest be used as a study area. However, because the timber was clearcut about two years before the gift, and because the area is almost entirely surrounded by houses, it is likely the land will be sold with the proceeds funding an endowment that will benefit the College.

The Taylor Forest, in Nash County, was a 118 acre gift from Mrs. Oma Taylor, a resident of Raleigh, in 2007. It consists of pine plantations, some of which have been cut and are ready for replanting, and open agricultural land. It is likely that this tract will remain in forest and agricultural uses as long as is possible.

The Gates County property is a 3809-acre tract of wetland forest that was transferred to the Foundation from the Nature Conservancy in the 1970s (the property was originally owned by Union Camp Corporation). The value of this property lies primarily in its fisheries and wildlife resources. The property is currently under lease to a hunt club; the lease is the only financial return from the property. Under agreement with the NC State Natural Resources Foundation, the wildlife leases are handled by the Fisheries and Wildlife Program with receipts to be retained by that program. The Gates property was extensively damaged by Hurricane Isabel in 2003.

In 2004, a Mrs. Carver willed a 106 acre tract in Person County to the NC State Endowment. This tract lies approximately 5 air miles from the Hill Forest. Mrs. Carver wanted the tract called the TIMACA property using the first two letters of her nieces and nephews. The Piedmont Forest staff and work crew cruised the property and had planned to carry out harvests when a great nephew contested the will using an unsigned note written in pencil as the basis for his case. At this point the nephew has lost all court proceedings. The last appeal to the State Supreme Court is in process. Pending a favorable outcome for the State in the Courts, this property will be managed by the NC State Natural Resources Foundation.

The Department manages one other tract, the Bull Neck Swamp Research Forest on the southern shore of Albemarle Sound in Washington County. This 6158 acre tract, with 7 miles of undisturbed shoreline, was acquired in 1996 through a series of grants from the Natural Heritage Trust Fund. Although the area had been logged extensively for Atlantic white cedar, it has recovered sufficiently for the Natural Heritage Trust Fund to place 2317 acres in preserve status that includes 1118 acres of shoreline and islands preserve, 237 acres of Pond pine preserve, and 185 acres of Atlantic white cedar preserve. Bull Neck Swamp contains 5 community types: nonriverine swamp forest, peat land Atlantic white cedar, mesic mixed hardwood forest, tidal cypress-gum swamp, and tidal freshwater marsh. The tract has large populations of many of the major wildlife species of eastern North Carolina wetland forests. The Forest now serves as a site for research by the Fisheries and Wildlife faculty and research by others is being sought. In addition, it generates income from hunting leases and timber sales with the revenue applied towards funding of graduate student research and an undergraduate Bull Neck Swamp scholarship.

Management of the Foundation-owned Forests, beginning in 2008 will be under plans approved by the Foundation. The management objective will be to maximize financial return to the College endowment, utilizing best management practices meeting all relevant social and environmental constraints. Management of the State-owned College Forests, on the other hand, has always been primarily for teaching, research, and demonstration and only secondarily for income. Since the first College-managed Forest lands were acquired, management philosophy can be summarized as:

- Provide sites for field instruction and research in forestry;
- Serve as examples of the multiple benefits to be derived from a balanced forest management program;
- Produce revenues sufficient to cover management costs and to support teaching and research on the forests.

During the last 25 years evolution of management on the Forests and the circumstances of their locations caused two other objectives to be added to this management philosophy:

- Preservation of habitats, both natural and cultural;
- Public recreation when and where it is compatible with other forest management objectives.

In the most recent (2004) version of the College-managed Forest Management Plan, the mission and goals of the Piedmont Forests are restated and expanded. The mission is ".....serving as outdoor laboratories for undergraduate and graduate teaching, for research, and as examples of biologically diverse and sustainable working forests." This mission is realized through goals that can be paraphrased as:

- Encourage and facilitate teaching and research uses of the Forests.....;
- Actively engage undergraduate students in [management] activities on the Forests;
- Provide a high level of protection to soil, water, and air resources.....;
- Maintain representative examples of forest types and stand structures typical of the North Carolina Piedmont Region, including late successional hardwood types;
- Employ examples of a wide variety of silvicultural strategies and forest practices.....and maintain adequate acreages of specific forest types and stand conditions needed for future instructional and research needs;
-increase public awareness of the multiple benefits of forests as demonstrated by the NCSU College-managed Forests;
- Produce sufficient revenues to offset the costs of routine management and facility maintenance, and to support scholarships and other teaching and research programs of the Department and College;
- Insure that timber harvests do not exceed sustainable levels.

To these should be added the goal that public use and recreation will be encouraged and supported where it is warranted by a given Forest's location and is consistent with the other goals under which the Forest operates.

Consideration of the old objectives suggests that the new goals contained in the 2004 Plan of Management are implicit within the old objectives. However, events that have taken place on the College-managed Forests since 1980 show clearly why it was necessary to state more explicit goals in the 2004 Plan. As new pressures, from a variety of sources, impacted the College-managed Forests it became necessary to clarify policy in dealing with these issues. The new objectives, therefore, are in a sense a "codification" of management experience over the life of the Forests, especially the last 25-30 years.

Because of their small size the College-managed Forests must be viewed collectively in assessing timber harvesting. When each came under Departmental management, the timber resource was in a far-from-desired condition. The Schenck, Hope Valley, and most of the Hill Forest consisted of a mixture of young, old-field or newly planted stands of pine (Loblolly pine on the Schenck and Hope and Virginia pine on the Hill), recently cut-over stands of young pine and hardwoods, with small amounts of older pine. The Goodwin was an exception to this generalization, as Mr. Goodwin had carried out management on the lands since he acquired them between 1928 and 1932. Thus, the first objective of management on all the forests became to bring them

into a "regulated" state where they were producing a sustainable flow of wood, income, and other benefits. As might be expected, this took longer on some forests than on others. Generalizing broadly, the Hill, Hope Valley, and Schenck (subject to constraints explained below²) Forests, considered collectively, and the Goodwin considered as a separate management unit, came into a fully regulated condition during the last 25 years and all continue to be managed accordingly.

Records of timber harvests on the Hill, Hope Valley, and Schenck Forests, despite much missing data for the years from acquisition through 1960, give a sense of how timber harvesting took place in the early years of Department management. On the Hill, from 1932 to 1960, considerable harvesting of pine, particularly pulpwood, took place. Virtually no hardwood was harvested until the 1960s. Limited cutting took place on the Schenck Forest, whereas substantial cutting of pine and hardwood sawtimber occurred on the Hope Valley Forest. On the Goodwin, cutting of pine and hardwood sawtimber and pulpwood has taken place on a regular schedule ever since the Department took over management in 1968. Cutting on all 4 of the Piedmont forests since 1980 has been regular and consistent with the Department's objective of sustained yield.

Since 1980, revenues derived from timber harvesting available for forest management, scholarships (in the case of the Goodwin), and other Departmental needs have increased significantly. Annual revenues from the Hill, Hope Valley, and Schenck rose from an average of about \$17,000/year in the 1970s to slightly over \$57,000/year in the 1980s and to nearly \$70,000 in the 1990s. This substantial increase derived from an ability to carry out regular cutting on at least one of the forests each year, and from Larry Jervis' astute assessment of local timber markets and wise application of a variety of management practices to each forest. Revenues, of course, could have been greater if income generation were the only objective of management. The necessity to retain timber types, examples of a variety of management practices and age classes, to accommodate research, and to allow students hands-on experience in management, combined to constrain somewhat revenue generation from timber harvesting.

During the last 25 years, revenues from the College Forests became a more and more integral part of the Department's fiscal portfolio. With the exception of major capital construction at Slocum Camp, all regular maintenance, minor construction, and through 1988³ utili-

² As a result of the sale of about 80% of the Hope Valley Forest to the Corps of Engineers in the late 1960s, the College liquidated the standing timber on the sold lands between the late 1960s and 1972. This large volume of timber, much of which would not otherwise have been sold until later, artificially increased the amount of timber sold from the Forests during the late 1960s and early 1970s.

³ In 1988 the costs of utilities, except for water and sewer, were assumed by the University. The reasons for this move were never clear, but needless to say it was gratefully accepted.

ties, were paid from College Forest funds. Work-study students, who provided a tremendous amount of labor, were also paid from these revenues. In addition, miscellaneous jobs such as painting offices when occupants changed, moving from Biltmore to Jordan in the late 1980s, and salaries for an equipment room clerk and for bus drivers for many classes, were paid by College Forest revenues. By the early 2000s, with the addition of a second liaison silviculturist, this annual subsidy had risen to \$25,000.

Goodwin Forest revenues in excess of the costs of managing the Forest, are by the terms of the gift of the Forest to the University, designated for support of scholarships. The first scholarship of \$1000 was awarded in 1981-82. Between 1994 and 1999, depending on the availability of funds and the number of qualified recipients, the value of undergraduate scholarships, graduate stipends, and work-study scholarships, ranged from \$42,000 to \$79,000! Mr. Goodwin would be proud of the results of Larry Jervis' management of his gift to the College.

During the past 25 years, the pressures of urbanization on the College Forests have increased dramatically. In the 1970s small acreages of the Schenck Forest had been lost, with minimal effects on the Forest, to a sewer easement and to the Crabtree Creek floodplain protection plan. In 1984-85 the Forest was annexed into the City of Raleigh making it subject to city ordinances few of which, fortunately, had any direct impact on management. A serious threat occurred in the late 1980s and early 1990s when the State Department of Transportation proposed a 4-lane highway, the Duraleigh Connector, that would directly impact the western part of the Schenck and indirectly virtually the entire forest. After several years of serious discussion, and very strong negative citizen reaction to the project because of its impacts on the Schenck and Umstead Park, the proposal was finally killed in 1996. Doug Frederick and Larry Jervis took the lead in developing the Department's objections to the proposed highway and deserve much credit for its demise. Completion of the RBC Center and the Edwards Mill Road Connector, relinquishment by the College of Agriculture and Life Sciences of most of its lands adjacent to the Schenck, and the proposed nearby construction of the Terry Sanford Center for the Performing Arts all combine to remind the Department that the Schenck Forest is now an urban forest. Because it is essentially indispensable to the Department's teaching program, management has, for the last 20 years at least, been oriented toward making the Schenck an important open-space resource not only for the Department but for the City of Raleigh as well.

The situation at the Hill Forest is not much different. Until 1980 the Hill remained in a purely rural setting with the only external pressures being a continued low-level demand for hunting and riding access and a potentially-serious proposal for increasing the capacity of Durham's Lake Michie Reservoir that would have resulted in a flooding of much of the forest near the Flat River. This proposal was first made in the early 1970s and was eventually shelved only to arise

anew during the mid-1980s. After considerable negotiation with the City of Durham designed to minimize the impact of the project on the Forest, the City eventually turned to another alternative on the Little River which it has now completed. A more bizarre, but none-the-less serious proposal arose in 1986 when the State entered a bid to locate a superconducting supercollider facility on a site just to the north of the Hill. Construction of the supercollider would have had a significant physical effect on the forest which the Department went to considerable lengths to document for the environmental analyses done in support of the project. Eventually the facility was awarded to Texas and this threat, too, vanished.

What has not vanished, however, is the slow creep of urban development around the fringes of the Hill. In 1979-80 a golf course was constructed near the Forest and in 1984-85 the Treyburn residential development was announced. Since the mid-1980s residential development has continued unabated around the Hill driving up the cost of land to an extent that it is highly unlikely that any significant amount of new land can ever be added to the Forest. The Hill's location dictates that it will continue on a path toward becoming what the Schenck now is, a working forest in an urban setting.

The Goodwin, Hope Valley, and Hosley Forests, because of their locations, are not now subject to the same urbanizing pressures as the Hill and Schenck. However, changes are taking place around the Goodwin as horse farms and "farmlets" increase, suggesting that the urbanized part of Moore County is beginning its inexorable creep toward the Goodwin.

Thus, it had become obvious by the early 1980s that continuing to manage the Forests for the teaching, research, and demonstration programs of the College alone was no longer a tenable policy. Much of the history of the College Forests during the last 25 years, therefore, has involved management taking into account their geographic and cultural context and developing ways in which the Department and College could continue to meet their needs while at the same time meeting some of the needs of their urban neighbors.

Wildlife management where and when appropriate has always been a part of the College Forest agenda. The Hill has always been open to hunting. A survey done in 1997-98 of hunting success on the Hill indicated that during the late 1970s deer hunter success remained low, about 1-2 animals per 100 hunting trips. However, during 1980s and early 90s success increased to 5-10 animals per 100 hunting trips, reflecting the increase in the deer herd in northern Durham County consistent with increases that have occurred elsewhere in North Carolina during the same period. Rabbit and quail hunting success decreased to essentially zero over the same period. A turkey restocking project undertaken by the North Carolina Wildlife Resources Commission in the early 1990s proved quite successful and wood duck boxes, blue bird houses, and food plots have also been a feature of Hill Forest management. From 1988 to 1998 the Goodwin Forest was a part of the State

gamelands program. However, it was removed as greater income could be obtained by leasing it to a private hunt club. For obvious reasons, hunting has not been permitted on the Schenck Forest since the late 1960s.

A special issue involving wildlife, fox hunting, has been a management problem for years at the Hill. A local fox-hunting group negotiated for use of the Forest in 1969 and has used it ever since. Over the years there have been conflicts between deer hunters and fox hunters. For the most part these have been minor in nature. In 2006, the College Forest Manager, Joe Cox, in a letter to previous hunting permit holders, announced a ban on recreational horse riding on the Forest during the gun season for deer and turkey. Within two weeks Cox found out how connected the equestrian community can be. Ex-UNC System President William Friday called Chancellor Oblinger to find out what was happening with the "horse ban on the Hill Forest." After much consternation, a recreational permit process and non-hunter recreational use ban during the gun seasons was instituted. Also, new Dean, Robert Brown, mandated that the Department of Parks, Recreation, and Tourism Management work with the Piedmont Forest staff to analyze the recreational situation on the Forest. The College will analyze and recommend a course of action to address all of these issues. In summary, the recreational pressures continue to mount and to take a large amount of the Piedmont Forest staff time. The Piedmont Forest staff in conjunction with the PRTM staff, and the stakeholders continue to search for a workable sustainable solution to these problems.

In 1985 the Hope Valley Forest was thrust directly into the business of managing for endangered species habitat when a fresh seed tree cut was chosen as an overnight roosting site by 30-35 bald eagles that used the lake as their private fishing hole. Although the eagles use of the seed tree cut was entirely serendipitous, it none-the-less became clear that the Department had created an ideal site for their use. Up to 30 or more eagles continued to use the stand as their primary roosting site for several more years and, in 1990, began nest building activity. In 1993 two eaglets were successfully fledged on Corps of Engineers property immediately adjacent to the Hope Valley Forest. Numerous interagency consultations took place in the late 1980s, all intended to ensure that management practices on our property, as well as on adjacent Corps of Engineers lands, were designed to perpetuate use by the eagles. At least two other seed tree cuts were carried out on the Hope Valley Forest and at least one was done on Corps land. None of these sites proved as desirable from the eagle's perspective as did our initial 1985 seed tree cut. In 1996-97 the Department of Cultural Resources received a Federal grant to restore the Mason House on property just south of the Hope Valley Forest. Although it was feared that the regular vehicle traffic that would be involved in restoration and eventual public use of the site would disturb the eagles this did not prove to be the case.

Eventually it became clear that the eagles' use of the Hope Valley Forest would be a permanent phenomenon and management was shifted

from an emphasis on timber (particularly uneven-aged pine management) and early successional wildlife habitat to an emphasis on seed tree cutting and 50-year rotations in which consideration of the eagles was paramount. Although this meant forgoing significant revenues, the Department believed that use of the area as a real-life teaching experience and its value for public relations purposes exceeded what revenues and research opportunities it might have to forego. The work of the interagency team created to coordinate eagle management in the area quickly tended to blur the fact that the Department was originally responsible for attracting the bald eagle population to use of its now-permanent site. Larry Jervis and the School Forests Committee deserve much credit for insuring that the Department maintained a major role in decision-making about present and future management in the area.

Prior to 1980 public recreational use (other than hunting) of the Forests was low, and consisted primarily of hiking. In the late 1970s the trail network on the Schenck was improved and tied into the Raleigh Greenway Trail leading from the Meredith College area to Umstead Park. At about this same time a picnic shelter and pit toilets were built at the Schenck in the vicinity of the "Schenck memorial" oak. General use of the area was allowed, by reservation. Unfortunately, use became so great that soil compaction around the oak became a major concern. Consequently, use was limited to groups of no more than 150 from the University alone and a small use fee was charged. Later, it became necessary to restrict the use of alcohol. In honor of Frances Liles' retirement in December 1982, the main interpretive trail was renamed the "Frances Liles Trail". The picnic area at the Schenck remains the most heavily-used recreational site on the College Forests.

Increased general public use of the Schenck during the 1980s and 1990s led to the worst recreational conflict yet experienced on the College Forests. Although some problems were experienced with horse and motor bike riders on the Forest trails, the worst problems were encountered with dog owners who allowed their animals to run free. In order to protect other hikers and users of the Forest, the Department soon decided that all dog walking should involve dogs on leashes rather than running free. Unfortunately, many dog-walkers chose deliberately to ignore this rule, resulting in some nasty confrontations between dogs, their owners, and other users. At one point the NC State cross-country team had to cease using the Forest for practice when a dog attacked and injured one of the runners. In other episodes the Forest Manager and other faculty members were cursed and threatened when they reminded dog owners that their animal(s) should be on a leash. This issue dogged (no pun intended) Larry Jervis to the day he retired and quickly became a major problem for Joe Cox. Ultimately, with the support of the University Public Safety office, a full "no dogs" policy was adopted and that is where the issue stands today. This whole episode reminds one of the old adage that the only thing people are more irrational about than their children is their pets and is yet another example of the few ruining an opportunity for the many.

The rapid encroachment of urbanization on the Hill and Schenck meant that, inevitably, the management practices used on the Forests would be carried out in full public view. Wisely, Jervis and Cox have seized on this as an opportunity to educate the public about forest management. Whenever a cut or burn has been done in an area of public use, such as along Reedy Creek road adjacent to the Schenck, signs have been posted to explain the practice and its place in forest management. Such education was particularly important when much of the largest (78-acre) stand of 60+ year-old loblolly pine that surrounded the picnic shelter at the Schenck was cut in the early 2000s. Similar proactive educational efforts have been used at the Hill. Interestingly, there has been little negative reaction to timber harvesting on either the Hill or Schenck. This may be due to the fact that most stands harvested, or modified, are relatively small and that a large area of older stands still remain. For example, cuts in the 78 acre stand of loblolly pine planted in 1938 began in 1987-88 when two small shelterwood cuts were done along Reedy Creek road. Further cuts in this stand ultimately converted it into a mosaic of stands of different ages. Had all 78 acres been cut at once, not only would revenues have been greater but so would public outcry. In the case of the Schenck, at least, it seems that users largely understand who manages the area and accept that the Forest is a managed forest and that cutting of timber, or burning for undergrowth control, are to be expected.

The College Forests have continued to play an integral role in educational programs not only of the Department but also of other institutions. Availability of the Hill and its Slocum Camp enabled the Department to continue an outdoor teaching and living experience as an integral part of its forestry and fisheries and wildlife curricula. An analysis done in 1999 of educational use of the Schenck Forest showed that use by NCSU classes alone had risen from about 2000 contact hours in spring 1986-87 to nearly 7300 contact hours in just the spring of 1999. Nothing has happened to change the fact that, without access to the Schenck, the quality of a number of programs at NCSU would be seriously reduced.

Teaching programs of a number of other institutions in the Triangle area also began to make use of the Forests. Montgomery Community College forestry skills students first used the Goodwin Forest in 1988-89; this led to a formal cooperative agreement allowing them continued use of the Forest. Some examples of other educational uses of the Forests include: use by Boy Scout troops, visits by middle school students, training sessions for county sanitarians, cooperation with the North Carolina Museum of Natural History field programs, and use by 4-H groups, particularly during their annual June program in Raleigh. Many other examples could be cited but they would only emphasize the fact that the College Forests, and particularly the Hill and Schenck, constitute a rich outdoor educational resource in an area where such resources are becoming fewer and harder to get to.

Demonstration activities have always been an important use of the College Forests. They have generally been oriented toward owners of small tracts of land and have concentrated on practices that can be of value to this huge portion of North Carolina forest landowners. These have included extension field day programs and demonstrations of small scale logging practices. Obviously, such programs blend into the broader general education function of the Forests.

Research has always been one of the reasons the College Forests have existed. As a generalization, concentration of faculty use of the Forests for research was greatest when the College was young and now the Forests are, proportionately, the site of a smaller percentage of the Department's total field research effort. This is due to a number of factors, perhaps the most important being the growth of the Research Cooperatives and the access that member companies have provided to a wealth of other lands for research and experimentation. Nonetheless, the College Forests have always constituted a valuable research site.

The most recent tabulation of research activity on the Forests done in 1992 showed that 64 masters and doctoral theses, 37 journal articles, and 31 miscellaneous reports had been produced between 1940 and 1992. As the report points out, there are many other ways in which the Forests have been of research value. For example, the Tree Improvement Cooperative has used the Schenck as a seed nursery for years and the Tree Improvement and Nutrition Cooperatives have both maintained long-term trial studies on the Hill, Hope Valley, and Schenck Forests. There have been several examples of long-term research projects that were located on one of the College Forests. The seed tree orchard at the Schenck is a prime example. Others include a study by Waldy Maki and Bill Hafley in the 1970s of water runoff at the Hill, an instrumented watershed weir at the Schenck, a water quality study comparing water quality from variously treated watersheds carried out by Jim Gregory in the early 1980s, and a long-term study on the Hill of southern pine beetle behavior by Fred Hain and his students.

Jervis and the College Forests Committee had always made it a practice to reserve from active management certain lands which, because of (1) their topography, (2) the nature of the forest community occupying them, or (3) the fact that they had been identified as containing plants or animals that were rare in the general area, warranted protection from active management. As development of the area surrounding the forests increased, these tracts became proportionately more valuable. These reserved lands were quickly recognized by the North Carolina Natural Heritage Program as having unique properties and the Forests entered into discussions that began the process of registering them as Natural Heritage sites. Eventually 4 areas on the Hill were given this designation including approximately 200 acres along the west side of the Flat River from the Hill's southern boundary to near the camp entrance that were dedicated as the Flat River

Nature Preserve. As a sidelight, 525 acres (21%) of the Hill Forest are now reserved from management.

The Hill Forest was officially registered as part of the American Tree Farm system in the early 1990s an action that predated ATF's development of criteria for its program. Application for certification of all 5 Piedmont forests under the Sustainable Forestry Initiative (SFI) and Forest Stewardship Council (FSC) programs was made in 2000. This application was combined with ones from Duke University for the Duke Forest and the State Division of Forest Resources for its managed lands. Susan Moore, Larry Jervis, and later Joe Cox, coordinated this effort for NCSU. On-site audits took place in early 2001. SFI certification required correction of several non-conformances and a number of conditions had to be met before FSC certification was final. Fred Cabbage hired Jimmy Dodson on a temporary basis after summer camp to work through the specific non-conformances. Joe Cox was hired on 1 November and the auditors arrived on 12 December to conduct a remedy audit. Jimmy's work in the woods, and Joe's experience with SFI audits when he was with Champion International, combined to yield the evidence to get the NCSU properties certified with both programs in late 2001. In 2005, the original parties to the certification audit tried to work together to schedule a joint recertification audit to the SFI Standard. The details could not be worked out and each party had to pursue recertification on its own. The College awarded a bid to a company called SGS that handles both SFI and FSC certification audits. This resulted in a significant cost savings for continuing the certification of the Piedmont Forests to both standards. In late 2007, the Piedmont Forests were scheduled for the first recertification audit for the FSC standard.

The College Forests have been, and hopefully always will be an indispensable part of the Department's teaching, research, and extension program. Their value to the Department and their equally important value to the communities in which they are located stand as testimony to the 30 plus years of wise management by Larry Jervis. There is every evidence that in Joe Cox the College Forests have found an equally able champion.