

Future management, maintenance, and funding of NATL

Approved unanimously by the Natural Area Advisory Committee, 26 Jan 2005

Summary: To maintain and enhance its roles in teaching and conservation, UF's Natural Area Teaching Laboratory (NATL) needs increased support. The Natural Area Advisory Committee (NAAC) proposes that each fiscal year, the Vice President for Agriculture and Natural Resources and the Provost and Senior Vice President for Academic Affairs jointly fund NATL based on a budget prepared by NAAC during the previous Spring Semester. For FY 2005-06, NAAC proposes a budget totaling \$20,000, nearly all of which will be used to hire a Teaching Assistant. Two circumstances make this a particularly timely request: the likely expansion of NATL from 46 to 60 acres and an expected \$500,000 in CITF money for improvements to UF conservation areas.

HISTORY¹

In 1993, a group of faculty proposed that a large, undeveloped tract in the southwest corner of campus become a "campus natural area and outdoor teaching laboratory."² In September 1994, with encouragement from IFAS Dean Larry Connor, the group became the Natural Area Advisory Committee (NAAC) and set about seeing that its proposals were implemented. It soon adopted operating policies and refined the plan described in its original proposal.

In 1996, NAAC sought and received the support of the Lakes, Vegetation & Landscaping Committee (LVLC), which is charged with the "management and well being of natural areas containing non-domesticated plants and animals." It was agreed that the chair of LVLC would become a voting ex officio member of NAAC, that NAAC would keep LVLC informed of its activities, and that NAAC would seek LVLC approval of its major projects.

By 2000, NAAC had initiated and received support for the following improvements to NATL: erection of boundary fences, survey and marking of a 50-meter grid, a grid-based photographic record of vegetation, establishment of old-field plots (with schedules of tilling designed to permanently display five diverse stages of old-field succession), ecological engineering of its retention basin (the Stormwater Ecological Enhancement Project or SEEP), a kiosk and blue-light phone at NATL's academic entrance, a 7-foot-high earthen berm along SW 34th Street, and a good start toward restoration of NATL's upland pine ecosystem (three controlled burns completed).

In early 2000, NAAC completed a survey of the academic usefulness of NATL³. Nine departments in four colleges reported that they had used NATL, or intended to use it, in teaching three or more courses. Of the 76 courses named, 53 had already used NATL. The estimated annual number of students using NATL for course work was 2561. Other academic uses were for short courses, workshops, thesis and dissertation research, stand-alone special projects, and field trips by K-12 groups visiting the Florida Museum of Natural History.

In early 2001, prompted by the increasing academic importance of NATL, Provost David Colburn approved this statement of the role of NAAC in NATL management: "The Natural Area Advisory Committee (NAAC), consisting of at least one representative from each department or other unit making significant use of NATL and the Chair of the Lakes, Vegetation and Landscaping Committee, will recommend management plans and

seek their implementation. Each fall the Chair of NAAC will send a written report of the Committee's activities for the previous school year to appropriate administrators and will report in person to the Lakes, Vegetation, and Landscaping Committee."⁴ At the same time, the Physical Plant Division (PPD) was assigned responsibility for working cooperatively with NAAC to ensure the maintenance of NATL. Except for the increased support from PPD, fiscal support of NATL was unchanged. For its documented needs, NAAC requested and received funds from a variety of administrative units, but especially from IFAS and the Provost.⁵

With this increased administrative recognition and support, NAAC soon installed a pavilion to provide tables, seating, and shelter for as many as 38 students and developed a Natural Area Park to serve as an interface between the Cultural Complex and NATL.

In December 2004, relative to developing the 2005-2015 Campus Master Plan, UF planning staff proposed enlarged boundaries for NATL's conservation area and new boundaries for the Surge Wetland, a conservation area immediately east of NATL.⁶ NAAC endorsed the new NATL boundaries and recommended that NATL be expanded to include the Surge Wetland. The Lakes, Vegetation and Landscaping Committee approved this expansion of NATL at its January meeting and the expansion now awaits the approval of the Vice President for Agriculture and Natural Resources and the Provost and Senior Vice President for Academic Affairs. (Approval of the new NATL boundaries and the addition of the Surge Wetlands will increase NATL's area from 46 to 60 acres.)

ASSUMPTIONS

In proposing changes in NATL's management, maintenance, and funding, NAAC made these assumptions concerning administrative structure:

(1) The Natural Area Advisory Committee (NAAC), consisting of representatives of the administrative units that make significant academic use of NATL and the Chair of the Lakes, Vegetation and Landscaping Committee (LVLC), will continue in its role of recommending management plans and improvements for NATL and seeking their implementation.

(2) LVLC will continue to oversee NAAC in its conservation functions.

LVLC is one of four UF standing committees that makes recommendations to the Vice President of Finance and Administration concerning land use and facilities planning. LVLC's responsibilities include the "management and well being of natural areas containing non-domesticated plants and animals."

(3) The Office of the Vice President for Agriculture and Natural Resources and the Office of Provost and Senior Vice President for Academic Affairs will oversee and support NAAC in its academic functions.

Approximately half of the academic use of NATL is by five IFAS departments. The other half is by Botany and Zoology (Liberal Arts and Sciences), Teaching and Learning (Education) and Environmental Engineering Sciences (Engineering). IFAS academic departments report to President Machen through the Vice President for Agriculture and Natural Resources, whereas other academic units report through the Provost and Senior Vice President for Academic Affairs.

HELP AND SUPERVISION NEEDED

Appendix A lists tasks required to maintain NATL as it currently exists and tasks that should be added to increase its academic usefulness. The tasks are comparable to those for a large, complex, *indoor* teaching laboratory with a variety of courses using its facilities. Some of the tasks require much skill and knowledge; others are routine.

Based on the nature of many of the tasks and the functions of NATL, NAAC recommends hiring a Teaching Assistant (TA) for NATL. Such a TA could not only accomplish many of the maintenance tasks requiring special skills, but could also offer new services to instructors and classes that use NATL. For example, the TA could help instructors prepare to use NATL and could introduce classes to NATL facilities and the rules for their use. If these types of tasks were insufficient to fill the workweeks of the TA, he/she could be assigned tasks that would improve NATL's information infrastructure.⁷ Should the Surge Wetland become a part of NATL, the TA could help implement its development.

The supervisor of a NATL Teaching Assistant must be someone who is familiar with the needs and functions of NATL and who is well-versed in the plans that NAAC seeks to implement. The NAAC Chair fits that description and having someone to fulfill many of the tasks that in the past have fallen on the Chair will make it easier to find a faculty member willing to devote the time that will be required.

IMPLEMENTATION OF PROPOSAL

This proposal will require substantial new funding for NATL. NAAC suggests that the Vice President for Agriculture and Natural Resources and the Provost and Senior Vice President for Academic Affairs contribute equally, in keeping with the approximate equal use by departments reporting to each. Each fiscal year, the amount of funding should be based on a budget proposed by NAAC during the previous Spring Semester. As described in Appendix B, NAAC's tentative budget for FY 2005-06 totals \$20,000. If given the go ahead, NAAC will produce a final proposed budget by the end of April.

Notes

¹ Additional information about NATL's history is at its web site: <http://natl.ifas.ufl.edu/>. In particular, see <http://natl.ifas.ufl.edu/enhance.htm>, <http://natl.ifas.ufl.edu/NATLmmf.htm>, <http://natl.ifas.ufl.edu/index.htm#history>, and <http://natl.ifas.ufl.edu/natlmgmt.htm#action>.

² "Proposal for Campus Natural Area and Outdoor Teaching Laboratory" (<http://natl.ifas.ufl.edu/CNAprop.pdf>)

³ "UF's Natural Area Teaching Laboratory: Uses and needs" (<http://natl.ifas.ufl.edu/natluses.pdf>)

⁴ Letter of 14 Mar 2001 with Colburn's 28 Mar 2001 approval (<http://natl.ifas.ufl.edu/Colburn.pdf>)

⁵ "Administrative fiscal support of NATL" ([http://natl.ifas.ufl.edu/admin\\$\\$.htm](http://natl.ifas.ufl.edu/admin$$.htm))

⁶ "Proposed new boundaries for Surge Wetland and NATL conservation areas" (http://natl.ifas.ufl.edu/NATL_P1&P2.htm)

⁷ "Projects suggested as suitable for the award of minigrant to enhance NATL's information infrastructure" (<http://natl.ifas.ufl.edu/ProjectList.pdf>)

Appendix A: NATL tasks and who might do them

Current tasks

Below are listed 18 current components of NATL infrastructure. Under each component are listed tasks that must be done to maintain the component. In parentheses, for each task, is an indication of who in the future might be responsible for the task. Potential task-doers are abbreviated as follows:

EYN=Department of Entomology and Nematology (these are tasks that it currently does)

FLMNH=Florida Museum of Natural History

IFAS=IFAS Facilities Operations (these are tasks that it currently does)

NC= NAAC Chair (or a person designated by NC or by NAAC)

PPD=Physical Plant Division (routine or via work orders initiated by NC or TA)

TA=Teaching Assistant assigned to NATL

Trails

Mow every three weeks during growing season

SEEP trail (IFAS)

All other trails (PPD)

Weekly inspection (TA)

Pick up litter (FLMNH and TA)

Clear trails of fallen limbs and trees (TA and PPD)

Fill mud holes (PPD)

Signage

Check for missing trail and boundary-fence signs (TA and NC)

Recommend new or better signs (NC)

Update signs for old-field plots as appropriate (NC)

Make needed signs and repair damaged ones (PPD)

Install signs (TA)

Kiosks (Natural Area Park and academic entrance)

Update posters, notices, and pamphlets (NC)

Print new posters and replacements for those that are faded or damaged (EYN)

Copy and fold NATL pamphlets (EYN or TA)

Order new SEEP pamphlets (NC)

Replenish supply of NATL and SEEP pamphlets weekly at both kiosks (TA)

Replenish supply of NATL grid maps weekly at academic kiosk (TA)

Install new and replacement posters (TA)

Natural Area Park

Empty trash receptacle weekly (PPD)

Check weekly and tell UPD if any of its 8 tables are missing (TA)

Check for missing or damaged tree-identification displays (FMNH and TA)

Replace or repair tree-identification displays (FMNH)

Academic pavilion

Empty trash receptacle weekly (PPD)

Check weekly and tell UPD if any of its 6 tables are missing (TA)

Turf around pavilion and kiosk

Mow every three weeks during growing season (IFAS)

“Vistas” on south and east sides of SEEP

Decide when mowing is needed (NC)

Prescribed mowing (IFAS)

Old-field plots

Maintain tilling schedule (NC)

Specify tilling procedures (NC)

Till per schedule according to specified procedures (PPD)

Upland pine

Plan and supervise prescribed burns (Alan Long)

Help Alan Long with prescribed burns by having fire lanes disked and by contacting those who need advance notice of burns (NC)

Disk fire lanes in preparation for prescribed burns (PPD)

Arrange for planting wiregrass, longleaf pine, etc. (NC and TA)

NATL’s academic-only area

Monitor for unauthorized public use (e.g., jogging, dog walking) (TA)

Monitor for markers and equipment left in place without approval (TA)

Freedom or relief from invasive exotic plants

Apply appropriate herbicidal treatments to invasive exotic plants as needed to reduce or eliminate the patches of cogon grass, skunk vine, air potato, mimosa, climbing tree fern, coral ardisia, and Johnson grass that remain in NATL after the current grant-funded eradication program is completed (TA)

Be alert for new patches of these or other invasive exotics (TA)

Fences

Look for breaks and entry points in the south fence during weekly inspection of South Trail (TA)

Repair cut or damaged wood or wire fencing (PPD)

50-meter grid

Check for existence, condition, and placement of grid stakes annually (TA)

Determine where replacements for missing grid stakes should be driven (TA and NC)

Make and install replacement grid stakes as needed (TA)

Arrange with Student Geomatics Association for re-surveys as needed (NC)

NATL web site

Make essential updates (NC and TA)

For example, keep current the long-range plans for NATL and post significant management actions taken, the minutes of NAAC meetings, and the annual reports.

Make non-essential improvements and additions (TA)

For example, adding links and images to selected portions of the web site.

NATL tools and supplies

Store tools and supplies (EYN)

For example, chain saw, chain saw oil and gas, herbicides, backpack sprayer, work gloves for trash pickups, shovels, disk harrow for tilling (PPD has a tractor but no disk).

Keep track of tools and supplies (TA)

Poppy mallow plots

Keep four pairs of plots marked (TA)

Monitor for flowering each spring (TA)

SEEP rain gage

Measure and record rain weekly (TA)

Wax myrtle hedge along DPI fence

Replace missing plants (TA)

Grid-based photographic record of NATL

Arrange for new photographs at intervals no greater than 10 years (NC)

New tasks

If a Teaching Assistant is hired for NATL, some of that person's time can be used to offer new services to instructors and classes using NATL and to improve the information infrastructure of NATL. If the 10.8-acre Surge Wetland becomes a formal part of NATL, it will require integration into NATL and maintenance. If, as long proposed, a self-guided nature trail is added to NATL's public area, it will require maintenance.

Services to classes using NATL (TA)

Departments with courses that use NATL will be informed that the NATL TA is available to orient instructors and classes in the use of NATL facilities and to help in other ways.

Adding to NATL's information infrastructure (TA)

NAAC will update and prioritize its list of information infrastructure projects (<http://natl.ifas.ufl.edu/ProjectList.pdf>) that it prepared last fall for its donor-funded Minigrant Program (<http://natl.ifas.ufl.edu/minigrants.htm>). From this list NC will assign the TA a project to work on when other duties require fewer hours than the TA is responsible for.

Surge Wetland integration (NC and TA)

With advice from the Wetlands Club and others, NAAC will plan how Surge Wetland will be incorporated into NATL. Implementing these plans will be under the leadership of NC and TA.

Surge Wetland maintenance

The maintenance tasks will be similar to those of the rest of NATL and will be allocated in a similar manner.

Self-guided nature trail between Natural Area Park and Powell Hall (FLMNH and TA)

Monitor trail for missing or damaged signs
Supply and update trail literature
Replace missing or damaged signs

Appendix B: Tentative NATL budget for 2005-06

The budget below is tentative, principally because the addition of Surge Wetland to NATL has yet to be approved and the fee that the Physical Plant Division may require to service it has yet to be set.

Teaching assistant		\$18,506
Stipend	13,500	
Tuition waver	4,606	
Health insurance	400	

The TA will be responsible for working 13 hours per week on NATL-related duties and will report to the NAAC Chair.

Expenses \$1,494

For each of the past four years the Provost has provided NAAC with \$1000 for expenses. This money has been spent on such items as wire grass plugs, tools, chain saw repair and supplies, tables for Natural Area Park, brochures, lamination for posters, herbicides, and signs for trails, old-field plots, and boundaries. The activities of the TA will increase the need for expenses of this sort. In the past, a detailed accounting of the previous year's expenses has accompanied each annual request by NAAC for additional funds. This practice will be continued.

Physical Plant Division maintenance activities in NATL \$0?

In March 2001, in negotiations that involved the Provost and the CALS Dean, PPD assumed responsibility for some of the maintenance that NAAC volunteers had previously performed. It also became formally responsible for maintenance requiring heavy equipment that in the past it had done on a kindness basis. Paula Fussell, Associate Vice President of Finance and Administration, has stated that the expansion of NATL to include the Surge Wetland, needs to come with a funding source for PPD's maintenance responsibilities. This would seem a matter to be negotiated by the Provost and the Vice-President for Agriculture and Natural Resources. What is needed from PPD is the same level of service for an expanded NATL as PPD has provided since 2001 for the current NATL.

Capital improvements \$0

This spring, UF will ask the Florida Legislature to allot \$500,000 from the Capital Improvement Trust Fund for UF to promote "environmental stewardship through development of a strong Conservation Area Land Management Plan." The sheet proposing how the allotment is to be spent (posted at <http://natl.ifas.ufl.edu/CITFmoney.pdf>) lists four initiatives, one of which is "Expanded natural area teaching resources and facilities." During 2005-06, funding for capital improvements in NATL will be sought from the Trust Fund allotment. Nothing is guaranteed but NATL's academic importance should help as it competes with 21 other conservation areas for a share of the funds. Appendix C is NAAC's current list of desired improvements for NATL.

TOTAL (assuming that the PPD item can be omitted) \$20,000

Appendix C: Future improvements to NATL

The Natural Area Advisory Committee recommends the following improvements to UF's Natural Area Teaching Laboratory [NATL].

1. Develop an entrance to NATL from the Cultural Plaza.

The September 2001 Cultural Plaza Master Plan (<http://natl.ifas.ufl.edu/CPmasterplan.htm>) proposed an inviting new entrance to NATL positioned between Powell Hall and the Phillips Center. A subcommittee of the 34th Street Committee is currently working to revise the 2001 Cultural Plaza Master Plan with the intent of making the revised plan part of the 2005 update of the Campus Master Plan. The subcommittee should arrive at its plan for the new entrance to NATL during Spring Semester 2005. Tom Walker is a member of the subcommittee.

2. Develop a self-guided nature trail between Natural Area Park and the main entrance to NATL from the Cultural Plaza.

This was part of the conceptual plan for NATL's public area approved by NAAC in April 2000 (see <http://natl.ifas.ufl.edu/PubAreaPlan.jpg>).

3. Build a boardwalk and observation platforms to improve access to SEEP.

This was part of the conceptual plan for NATL's public area approved by NAAC in April 2000 (see <http://natl.ifas.ufl.edu/PubAreaPlan.jpg>).

4. Incorporate Surge Wetlands into the academic functions of NATL.

This is contingent upon Surge Wetlands becoming a formal part of NATL. It would include expanding NATL's grid system and photographic record, developing trails and signage, making maps, and adding boundary fences as described in 5, 6, and 7 below.

5. Erect a six-foot-high chain-link fence on boundaries of NATL where vagrants are likely to enter and where NATL fronts on commercial establishments or apartment complexes.

The current boundaries that qualify front on (1) SW 34th Street between the DPI compound and Regency Oaks, (2) the Regency Oaks apartment complex, (3) the Archer Woods Complex, and (4) the Classic Car Wash and Auto Insurance World properties. If Surge Wetland is added to NATL, its boundaries with Archer Road and with the Emmer property would qualify.

6. Erect corral fencing where NATL's boundaries are within campus and visible from Natural Area/Surge Area Drive.

If the revised boundaries proposed for the NATL and Surge Wetland conservation areas (http://natl.ifas.ufl.edu/NATL_P1&P2.htm) become part of the 2005-2015 Campus Master Plan, additional corral fencing should be erected along Natural Area/Surge Area Drive to make these new boundaries evident. Additional corral fencing east of the Drive would be required if Surge Wetland is added to NATL.

7. Erect field fencing where NATL's boundaries are within campus but not visible from Natural Area/Surge Area Drive.

If the revised boundaries proposed for the NATL and Surge Wetland conservation areas (http://natl.ifas.ufl.edu/NATL_P1&P2.htm) become part of the 2005-2015 Campus Master Plan, new field fencing will be required to make evident the boundaries between NATL and the Surge Area. Additional field fencing east of the Drive would be required if Surge Wetland is added to NATL.

8. Install a weir to regulate water flow between the fore-bay and the remainder of SEEP.

The weir was part of the original plan for SEEP but has yet to be installed.

9. Erect noise barriers where NATL fronts on loud machinery.

The car vacuum at the Classic Car Wash and the air conditioning unit at DPI's fly-rearing facility are noisy and next to NATL's boundary.

10. Complete a wax myrtle hedge to visually shield NATL's public area from the DPI compound.

This hedge was started in 1999 and added to in 2002. It lacks about 50 plants of being complete.

11. Label additional trees in Natural Area Park.

The 12 additional native species of trees recently planted in Natural Area Park should be labeled to help Park users learn to identify native trees.

12. Establish a place to store NATL-related equipment and fluids that is conveniently close to NATL.

NAAC has tools, hose, sprayer, chain saw, chain-saw fuel and oil, and herbicides that should be stored near NATL.