



## **Sustainability at TNCC**

### **Report of the Sustainability Task Force**

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## Executive Summary

This report is in response to the recommendations for improved sustainability contained in the Chancellor's report on sustainability which was produced and distributed September 2009 ([http://www.vccs.edu/Portals/0/ContentAreas/Facilities/SUSTAINABILITY\\_Ecological\\_Commitment\\_to\\_Our\\_Future.pdf](http://www.vccs.edu/Portals/0/ContentAreas/Facilities/SUSTAINABILITY_Ecological_Commitment_to_Our_Future.pdf)).

Colleges were asked to review the list of recommendations and identify those they will implement. To respond, TNCC conducted a campus-wide survey in January 2010. Faculty and staff were asked about sustainability and conservation practices and office and personal behaviors that reduce energy consumption, as well as sustainability-improving efforts that TNCC might implement. The results of that survey constitute the majority of this report.

Below are two lists comprised of recommendations from the Chancellor's report on sustainability. The first list identifies four recommendations that the college will continue to implement; the second identifies the five recommendations that the college will be implementing in the future. The report that follows describes by recommendation, the college's current activities, activities it has planned for the future, and specific actions it will take to achieve the recommendation.

### 1. Task Force Recommendations which TNCC will continue to Implement

- #3. Identify gaps between existing college programs and industry needs and develop programs and scholarships to bridge these gaps.
- #4. Conform to LEED silver or Green Globes two-globe standards.
- #6. Establish (and regularly assess) an effective PM plan for HVAC, electrical, and other equipment to optimize energy efficiency.
- #10. Assess the use of new information technologies, such as virtual servers, digital imaging, electronic file sharing, and electronic signatures to find ways to further reduce energy consumption and paper waste.

### 2. Task Force Recommendations TNCC Commits To Addressing in the Future

- #5. Develop a program for ensuring a healthy learning and work environment.
- #7. Establish a variety of transportation and parking options and incentives to reduce fuel consumption and carbon emissions.
- #8. Establish a sustainability committee.
- #9. Assess sustainability emphasis included in current procurement practices and identify areas for improvement.
- #11. Explore opportunities to engage community leaders in the development of an integrated sustainability program.

## Responses by Recommendation

This report documents current and planned efforts that contribute to a more sustainable environment at TNCC. Efforts are framed by the recommendations identified in the Chancellor's report.

Sustainability has long been practiced at TNCC and is a consideration in college decision making processes. Thus, TNCC is already implementing some of the recommendations proposed in the Chancellor's report. Recommendations of the Chancellor's Task Force on Sustainability were divided into three categories: Academics and Workforce Development Services (WDS), Facilities, and Fiscal and Administrative Operations. Recommendations below are presented within this framework. Current and future activities are presented by recommendation, as are a list of actions the college intends to take to achieve (or to continue to achieve) the recommendation.

### Academics and Workforce Development

#### **#3. Identify gaps between existing college programs and industry needs and develop programs and scholarships to bridge these gaps.**

##### **CURRENT:**

WDS regularly interacts with area business and industry and the Green Jobs Alliance identifying needs and developing programs to meet those needs. WDS also seeks grants in fields relevant to workforce demands of the region. Some of these include 'green' jobs.

TNCC has identified specific academic courses that are 'green' oriented and/or contain an aspect of sustainability. WDS courses with the prefix ENVR or BLDG are identified 'green' courses.

##### **FUTURE:**

WDS will continue to seek grant funding for training that prepares workers for 'green' jobs. It will continue its efforts to be demand-responsive to the needs of business and industry, especially those that target 'green' jobs. Information will be shared across academic lines so that academic faculty can also benefit from knowledge of the demands of the field.

##### **ACTIONS:**

- TNCC will investigate the feasibility of increasing the number of courses in ecology, energy efficiency, and alternative energy to increase relevance in appropriate academic and WDS-delivered programs.
- WDS will continue to identify and, where feasible, develop and deliver programs that promote 'green' job opportunities. Information will be shared with relevant academic departments and the grants office.

- TNCC's grants office will continue to research additional and viable opportunities for TNCC faculty in the fields of sustainability, energy conservation, and 'greening' for enhanced teaching and learning and for professional development.

## **Facilities**

### **#4. Conform to LEED silver or Green Globes two-globe standards.**

#### **CURRENT:**

The master planning process adheres to the standards of the Governor's Executive Order 82 which requires conformity to LEED silver or Green Globes two-globe standards. The next capital outlay project is the complete renovation of Hampton III building which will be used for both office and instruction. In addition to the many energy saving and maintenance saving features that will be incorporated into the renovation, consideration is also being given human health including bathroom fixtures, and hands-free fixtures.

Campus-wide there is a commitment to preserving green space and employing landscaping techniques appropriate to the natural environment and requiring little water. All infrastructure maintenance is conducted with an eye towards improving sustainability, saving energy and money, and minimizing maintenance.

#### **FUTURE:**

The requirement for 2-5% LEED accreditation in future capital budget requests will become part of the master planning process. TNCC, however, will take an additional step with its existing buildings - when economically feasible it will upgrade existing buildings and modify facilities operations for LEED silver certification.

#### **ACTIONS:**

- Investigate the feasibility and effectiveness of innovative waste water technologies (water conserving plumbing fixtures, captured rainwater, and recycled gray water) to reduce potable water use.
- Continue to review and consider irrigation and water needs by planting native and adaptable species.
- Stay current with the new building code changes coming out in 2010.

### **#5. Develop a program for ensuring a healthy learning and work environment.**

#### **CURRENT:**

Ensuring a healthy learning and work environment is the responsibility of several departments. Plant Services has installed new paper towel dispensers in bathrooms, resealed doors, adjusted HVAC temperatures, expanded the recycling program, and added a scrap metal dumpster as a small

revenue generation stream. Plant Services personnel also are working with DCR to maintain the MS-4 permits for storm water run-off. The hazard waste management program was launched in late fall 2009. All hazardous waste has been removed.

Plant Services converted a position and hired a Safety/Environmental Officer. He walks the campus daily and talks with the faculty, staff and students identifying problems and proposing solutions to make our campus safer and healthier. TNCC conducted a print management study and awarded a contract to ECI to install multi-functional networked printers to conserve equipment, paper and energy. Finally, the Human Resources Department continues to promote the State's CommonHealth Program through the sponsoring of CommonHealth workshops and activities on campus. In addition, First Aid and CPR certifications are offered to employees. The Human Resources Safety Assistant works closely with the College's Safety Officer in monitoring the college campus environment to ensure a safe and healthy environment for employees.

#### **FUTURE:**

TNCC will review and expand where possible strategies for improving indoor air quality, proper disposal of chemicals, restricted smoking policies, 'green' cleaning practices, and integrated pest management. TNCC will develop a web presence to help the campus community take steps to reduce energy consumption. The web site will also contain resources and suggestions for practice.

The TNCC sustainability committee will advocate sustainability efforts campus-wide and enable faculty, staff and students to consider sustainability options as well.

#### **ACTIONS:**

- Establish guidelines/recommendations that encourage use of an eco-friendly font that reduces ink production; print draft quality; print 2-sided or 2 pages per sheet, etc.
- Encourage more on-line courses.
- Consider alternative work schedules.
- Consider consolidating building use on weekends to reduce HVAC energy use.
- Encourage video and telephone conferencing, WebEx and webinar meetings, and electronic transmittals and communication in lieu of driving to meetings.
- Investigate the purchase and use of software that automatically powers down computers in off hours.
- Plant native and adaptable species to conserve water.
- Develop a 'green' web page that identifies 'green' practices, provides educational tips and best practices, and links to other relevant sustainability sites.
- Increase recycling efforts campus-wide by strategically locating additional blue boxes for paper recycling.
- Ensure that recycled materials are dispensed of in appropriate dumpsters.
- Design bathrooms to be as hands-free as possible to minimize the spread of germs.

## **#6. Establish an effective PMP for building HVAC, electrical, and other equipment to optimize levels of energy efficiency.**

### **CURRENT:**

TNCC is focused on energy and cost savings and has an energy performance contract for most campus facilities. Recently, Plant Services purchased and implemented a preventative maintenance program to track PM tasks and progress. In the past year, TNCC has upgraded lighting replacing existing with LED or other highly-efficient technologies, fixed leaks around doors, and controlled HVAC.

### **FUTURE:**

Encourage maximizing use of natural day lighting in occupied rooms and choosing fixtures for task lighting controlled by individual occupants. As resources allow, bathroom fixtures will be updated to conserve water.

### **ACTIONS:**

- Encourage the turning off of interior and exterior lights when not in use and install power strips that can be powered off to eliminate energy consumption when equipment has been turned off or is in stand-by mode.
- When replacing lighting, consider putting half of the lights on a separate switch so room could have full or half light as needed.
- Where possible replace standard plumbing fixtures with waterless or low-flush fixtures, and consider proximity-sensitive faucets and automatic flush valves for water savings.

## **#7. Establish a variety of transportation and parking options and incentives to reduce fuel consumption and carbon emissions.**

### **CURRENT:**

TNCC promotes carpooling through the purchase of a van for students from student activities fees and through the purchase of additional vehicles for the fleet for faculty and staff to carpool to events and to other campuses. To promote the use of smaller vehicles, TNCC currently allows motorcycles to park in the striped zones (corners) of the parking lots; and has installed several bicycle racks to encourage biking. TNCC has also made arrangements with the local transit company to offer reduced fares for TNCC students.

### **FUTURE:**

TNCC will continue to investigate telecommuting and ride sharing options. When the renovation of Hampton III is complete, there will be designated choice parking for high mileage vehicles.

**ACTIONS:**

- Consider telecommuting and alternative work schedules.
- Promote ride sharing.
- Maintain relationship with transit system to keep rates lower for students.

**Fiscal and Administrative Operations**

**#8. Establish a sustainability committee.**

**CURRENT:**

TNCC created an ad hoc committee to consider the Chancellor's Sustainability TF report. The committee consisted of representatives from IT, Library, Academic Administration, Plant Services, WDS, and Human Resources. All members are keenly interested in sustainability, enriching the environment at TNCC as it embraces sustainability, and creating programs and courses that will teach others about 'greening' and about performing 'green' jobs.

**FUTURE:**

TNCC will create a multidisciplinary standing committee that will be responsible for keeping sustainability in the forefront of TNCC's decision making and operations. The committee will identify, implement, and track relatively reasonable environmental sustainability measures for the TNCC campuses in compliance with the latest directives from the Governor. The Chancellor requires that **progress be documented and reported annually to the president and then to the chancellor.**

Among the committee's tasks will be any of the following: investigating innovations in 'greening', generating ideas to optimize resources and suggesting steps that might be taken to become more sustainable. Increasing visibility in the broader community, and sharing best practices and links to resources will be disseminated via the 'green' website.

**ACTIONS:**

- Establish a Sustainability Committee charged with identifying and helping implement reasonable environmental sustainability **measures** for the TNCC campuses in compliance with latest directives from Governor.
- Document and report annually committee progress to the president and the chancellor.
- Seek membership in the VEEP program of the Department of Environmental Quality.
- Encourage membership and involvement in regional and local 'greening' groups.
- Recognize/reward employees/students for sustainability efforts.



## **#9. Assess sustainability emphasis included in current procurement practices and identify areas for improvement.**

### **CURRENT:**

Procurement practices have been strong on sustainability in part due to the need to conserve resources. Finance has a contractor evaluating the monetary savings of combining printers and changing printer and toner cartridges. Complete conversion to a paperless system, however, is limited by auditing requirements.

### **FUTURE:**

TNCC will review procurement guidelines to increase sustainability in procurement practices such as specifying vendor requirements for diverting waste from landfills and incinerators, requiring recycling for construction waste, structured review of cost/benefit ratios for on-site or alternative energy sources, and encouraging 'green' requirements in RFPs and IFBs for auxiliary contacts.

The procurement office also will be encouraged to consider cooperative procurements and partnerships to reduce costs.

### **ACTIONS:**

- Establish guidelines for 'green' requirements in RFPs and IFBs for auxiliary contacts such as vending, food service, custodial and bookstore contracts.
- Establish guidelines for general operations including buying recycled paper, avoiding disposable materials where possible when meals are served - choose biodegradable or recyclable materials.
- Encourage use of Google docs to share documents.
- When feasible/possible buy local.
- Seek partnerships to recycle paper and plastic.

## **#10. Assess the use of new information technologies, such as virtual servers, digital imaging, electronic file sharing, and electronic signatures to find ways to further reduce energy consumption and paper waste.**

### **CURRENT:**

TNCC began implementing a print management system campus wide in fall 2009. Networked printing is operational in some offices. An assessment of information technologies has been conducted.

The volume of TNCC publications traditionally provided in hardcopy has been reduced. The web and Blackboard have been used in lieu of hardcopy materials. The college schedule and the college catalog have been put online. In 2009, the Vice President of Academic Affairs mandated that all

faculty post their syllabi and course content on Blackboard by spring 2010, resulting in considerable savings on paper and energy.

The administration is investing in additional SMARTBOARDS for classrooms to replace the chalk boards which caused unhealthy dust accumulation in the air and on the equipment and furniture.

**FUTURE:**

TNCC will continue with the implementation of the print management system the next step of which includes establishing a payment system for students so that they are paying for the copies they generate. TNCC is also working on additional ways the academy and the administration can conserve resources.

**ACTIONS:**

- Submit a report to the Vice President for Administration and Finance that identifies information technology purchases, short term and long term costs, anticipated savings, and the ramifications of the purchase.
- Create more course shells.
- Increase use of a digital drop box.

**#11. Explore opportunities to engage community leaders in the development of an integrated sustainability program.**

**CURRENT:**

TNCC recently partnered with the Peninsula Council for Workforce Development and The STOP Organization that manages the state weatherization funding for the City of Hampton.

TNCC also recently partnered with the Hampton-based Green Jobs Alliance (GJA). This has provided opportunities for integrating programs such as the new Electrical specialization within the Electronics Technology program conducted with the International Brotherhood of Electrical Workers (IBEW) apprentice program. The GJA also coordinated the March 2010 Green Jobs Legislative Day bringing to TNCC energy experts from Washington, DC, and Richmond, VA, to discuss legislative and funding priorities for 'green' initiatives.

**FUTURE:**

TNCC will continue to be involved in sustainability efforts at its campus and will capitalize on opportunities to work with area local governments and business and industry to consider the efficiencies of combining sustainability efforts like recycling or purchasing. TNCC will also seek strong speakers on sustainability and best practices.

**ACTIONS:**

- Continue involvement in regional 'greening' initiatives and groups, such as GJA and Hampton Roads Green Building Council.
- Seek additional opportunities to partner with area business, industry and government for funding.
- Seek speakers on this topic for the TNCC community and beyond.
- Seek opportunities for industry to use TNCC as a test bed for its 'green' products.

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