

Greener Going Forward

Sustainability Plan 2020-2025
The College of New Jersey
Drafting process coordinated by Brian Potter

Note: this draft lists several categories of actionable goals to increase environmental sustainability at TCNJ. The final copy will be more visually appealing through better formatting and including demonstrative graphics and photos. The sources for each goal, included here so that reviewers can see where ideas came from, will be deleted in the final copy. This draft thus offers substantive material but is admittedly short on polish and presentation.

The goal of this plan is to identify the policies, resources, and programs needed to place The College of New Jersey (TCNJ) as a genuine leader in higher education's efforts to promote environmental sustainability. To date, many inspired groups on campus have promoted various environmental initiatives. Indeed, a commitment to strategic investment and shared governance have allowed TCNJ to limit and at times reduce its greenhouse gas footprint over the last decade. Moving forward, the College needs to coordinate these efforts as well as assess what is missing. The Sustainability Plan identifies, prioritizes, and coordinates environmental initiatives so that TCNJ minimizes its carbon footprint, better stewards its resources, and provides environmental leadership on and beyond campus.

Out of moral obligation as well as reputational concerns, private and public actors across the globe have changed policies and resource distribution to address environmental sustainability. Although efforts by world political leaders appear to have stalled, the public, private, and community sectors continue to take environmental action. Corporations advertise their sustainability efforts to attract customers and investors. Likewise, higher education institutions need to demonstrate environmentally friendly practices to attract the best students and external financing.

While once on par with peer institutions in promoting environmental sustainability, it is becoming increasingly clear that TCNJ needs to reinvigorate its commitment to sustainability. Based on a series of surveys, benchmarking and visits to other institutions, TCNJ appears to be falling behind in sustainability efforts most visibly in the following areas:

- Environmental sustainability in the curriculum;
- Student engagement in sustainability initiatives;
- Planning for and educating our community about environmental impact and resiliency;
- Planning to achieve carbon neutrality in the medium term;
- Addressing environmental injustice in surrounding communities; and
- Sustainable transportation modes.

Creative initiative in these areas require the combined participation of students, staff, and faculty. The emphasis on environmental sustainability across the curriculum and in student life provides a supportive context for such projects.

It would be short-sighted to view these solely as environmental goals. Instead, sustainability can yield cost savings, be a strong marketing tool for admissions, generate grants, contribute the desirability of TCNJ as a place to work, promote the leadership and citizenship skills of our students and enhance the physical environment in which we all live. Moreover, many investments in sustainability yield immediate cost savings, thus minimizing the financial investment required to achieve them.

The College can catch up if it commits to measurable progress. TCNJ's current strategic plan includes a commitment to environmental sustainability:

- *Goal 4. Incorporate sustainability practices into all academic, administrative, recreational and residential operations of the college.*

The College has in place elements of the governance and outreach needed to achieve this goal, including the Environmental Sustainability Council, a Bonner Scholar Environmental Division, staff in facilities committed to improving efficiency and sustainability, two academic minors

(Environmental Studies and Environmental Sustainability Education), several student clubs such as the Environment Club, and expertise across many academic departments. This plan hopes to inspire greater commitment by College leadership to working with such groups to achieve meaningful and measurable improvements in environmental sustainability.

This plan organizes specific goals into several categories: Education and Curriculum; Governance; Campus Operations; Buildings, Property, and Energy; and Community Outreach. Each of the following descriptions list the goal to be achieved, how it promotes environmental sustainability, the ideal person or unit to be lead implementation, potential collaborators, and the timeframe for implementation. However, every goal listed below requires further development to create metrics to measure the degree of success in achieving it over the coming years.

This plan synthesizes goals and plans from several units across campus. In Spring 2020, plan coordinator Brian Potter gathered information from a campus wide survey, several drafting workshops open to the entire campus community, past campus sustainability documents, and consultation with people and organizations across campus. For reference, these sources are abbreviated as:

DW – drafting workshop

SR- survey response

EM – emailed to climate@tcnj.edu

BE – Bonner ESC Team

CA – Climate Action Plan 2016

CS – Comprehensive Sustainability Proposal 2016

After comments in two campus wide open forums, the plan will be considered by the Environmental Sustainability Council, the Committee on Strategic Planning and Priorities, and finally the Board of Trustees.

With objectives for education and community outreach, Sustainability Plans have a broader view than Climate Action Plans, which focus on how to reduce greenhouse gas emissions. This Sustainability Plan is narrower than most in that its focus is on environmental issues instead of balancing those with social and economic goals. The latter are not excluded and indeed often overlap. The point to be made is that TCNJ's sustainability plan prioritizes environmental goals in an effort to accelerate action in this issue area where the College lags compared to its peer institutions.

TCNJ Environmental Sustainability Mission Statement

The College of New Jersey is committed to be a leader in prioritizing environmental sustainability in its: teaching and research; sustainable practices such as procurement and transportation; investment in student services; and built environment, landscape, and open space.

Education and Curriculum

Approve and support the Environmental Studies major (2020-21).

The College is one of the few institutions of its caliber that lacks an Environmental Studies major. Not only does this deter potential students from applying or accepting admission but outside bodies such as the Association for Advancement of Sustainability in Higher Education (AASHE) or Princeton Review's "Top Green Colleges" cite the lack of a major as a concern. Moreover, as an aspirant leader in educating environmentally informed citizens, TCNJ needs at least one academic program to do so. The current proposal for an Environmental Studies major is in Stage 2 of the ten-step approval process. Further development and approval at several levels await. The major program will need promotion and collaboration with academic departments to be successful.

Source: DW1, DW3

Create a graduate 4+1 program in environmental sustainability (year?).

The public and private sectors increasingly need specialists with graduate training in sustainability. Building from the Environmental Studies major and other academic departments, the College can build a 4+1 program with an interdisciplinary base and the choice of specialization in areas such as advocacy, science, economics, engineering, policy, or management. The Office of Academic Affairs will contract for initial research that will identify existing faculty expertise, measure student demand, and study how other institutions structure their programs.

Source DW1

Increase general student awareness of sustainability (2022-23).

Every student who graduates from TCNJ should have some basic knowledge of the meaning and importance of environmental sustainability. This initiative could be fulfilled through a Liberal Learning requirement, a first-year student orientation module, or within the departments' orientation courses. If done through academic departments, each could decide how to make sustainability education most relevant to their field. The Faculty Senate should find the most appropriate means and Academic Affairs will offer incentive for faculty to develop new courses in any discipline promoting sustainability. The common goal is to encourage graduates to incorporate sustainability in the careers and lifestyles.

Source: DW4, SR45

Invite outside scholars and practitioners to share their knowledge of sustainability (year?).

A speaker series funded by Academic Affairs will invite at least one speaker per year. The speaker might present research or offer faculty and staff training in sustainability.

Source: DW4, SR11

Governance

Hire a Sustainability Director (2020).

A Sustainability Director is necessary for achieving College-wide sustainability goals, especially given the decentralized nature of TCNJ governance. A professional dedicated to this initiative would have sustainability as their top priority and would be held accountable for the results.

That every one of the College's peer and aspirant institutions has someone serving at the level of Sustainability Coordinator or higher is evidence of the efficacy of such hire. Furthermore, this position typically results in savings through greater efficiency. The Sustainability Coordinator will: serve as the central source of information about College sustainability; publicize TCNJ's efforts; maintain an accurate list of all sustainability efforts by the College; and identify and keep in communication with alumni who are working in areas related to environmental sustainability. The office will need resources to foster collaboration with student organizations, classes, faculty research, faculty-student research, community engaged learning, and educational training. Note that this position has been approved yet funds frozen due to the public health crisis.

Source: DW3, DW4, DW5, CS

Develop endowed fund for sustainability research and projects (2023).

The College will develop an endowed fund for green projects at TCNJ. This "Green Fund" could support faculty research, student-faculty collaboration, demonstration projects on campus, and community outreach. College Advancement will seek donors interested in funding sustainability research and projects.

Source: BE

Build a green portfolio (2020-21).

As the College builds its endowment, it will avoid investments in fossil fuel corporations. The College will develop and implement a formally established and active Committee on Investor Responsibility (CIR) or similar body that makes recommendations to the Board of Trustees on socially and environmentally responsible investment opportunities. This program is intended to be a non-binding mechanism to provide advice on sustainable investments.

Source: DW4

Coordinate with the Sustainability Institute (2020-21).

Cooperation between the College community and the Sustainability Institute is an untapped opportunity. The Institute could: help the College in seeking energy audits and grants from agencies such as the Board of Public Utilities' Clean Energy Program and the New Jersey Department of Environmental Protection; collaborate with faculty on student internships, class presentations, and community-engaged learning; and engage in a broader networks of partner organizations and experts. The Office of Academic Affairs, which manages the Institute's relationship with the College, should develop metrics to improve collaboration.

Source: EM

Campus Operations

Increase use of online learning, meetings, and administration (2020-21).

While online communication is not always a satisfactory substitute for in-person meetings, the College's experiences with the COVID-19 public health crisis show that many campus operations can be accomplished online. These adaptations have greatly reduced the College's carbon footprint and should be encouraged. Before May 2021, each cabinet member will identify within their division tasks that can be accomplished online, especially when they may result in cost-savings or a reduction in net College greenhouse gas emissions (including transportation). The Sustainability Coordinator will annually review such efforts and provide training and grant opportunities for increased online working.

Source: DW1

Eliminate the use of single-use containers (2020-22).

In contracts going forward with food and service contractors, the College will eliminate single use containers for beverages, catering, and food to go. Auxiliary Services and Dining Services will phase out such use over the next two years as much as practical.

Source: SR12, SR13, SR18, SR29, SR30, SR 34, SR47, SR50, SR52

Improve the recycling program and compliance with it (2021-22).

The Office of Occupational Safety and Environmental Services has partnered with the Bonner team to improve recycling on campus yet compliance by the campus community needs improvement, and such efforts should continue. Going forward, the Office will develop metrics to be better able to measure bulk waste and recycling programs and develop a plan to increase the recycling by a total of 5% in five years. Relevant academic departments and the Office of Communication and Brand Marketing will offer support.

Source: SR 17, SR 28, SR47, CS

Advertise environmental initiatives in the admissions process (2023-24).

As initiatives in this plan become successful the Admissions Office will increasingly publicize them and recruit students interested in environmental sustainability. The Office will work with the Sustainability Coordinator to identify programs and projects to use in recruitment.

Source: DW5

Implement an institutional bicycle-sharing program (2021-22).

Many institutions are implementing bike sharing programs modeled on successful initiatives in major cities to reduce carbon emissions. An earlier proposal for a campus-wide bike sharing plan was rejected for funding by Cabinet and the sense is that this would be best and most cost-effectively operated by an outside vendor. The Sustainability Coordinator will research different approaches in 2020-21 with the goal of implementation the following year.

Source: CA

Buildings, Property, and Energy.

Create an energy plan committing to renewable energy and carbon neutrality by 2040 (2021).

Many members of the campus community expressed interests in pursuing renewable energy projects in an effort to reduce costs and emissions. The College is scheduled to write an Energy Plan in Spring 2021. Suggestions for that plan include installing solar panels, building wind turbines, increasing the use of shallow well geo-thermal systems, continuing the move to LED technology to save costs on maintenance labor and parts, and investing in electric vehicles and landscaping equipment. The College's pledge to the American College & University Presidents Climate Commitment requires setting a date to achieve carbon neutrality. Among peer institutions, the consensus target date for carbon neutrality is 2040. Committing to using renewable energy for 50 percent of TCNJ energy needs by 2030 is an appropriate and achievable intermediate goal.

SR3, SR 17, SR37, SR 39, SR 40 SR 42, SR46, CA, BE

Increase use of native and permanent plants while reducing pesticides in landscaping (2021-23).

The College's image and marketability is linked to its verdant landscaping and mature trees. Unfortunately, many of the College's plant specimens are at the end of their life, have suffered from the heavy traffic on campus, and have been damaged by the seemingly endless construction. Insufficient resources have been applied to maintain, renew and upgrade the institution's landscape. The landscape provides benefits beyond a leafy appearance. Living plant material absorbs pollution, reduces our carbon footprint, and reduces energy use in the winter and the summer by blocking wind and providing shade. Buildings and Grounds should complete a landscape master plan which would include a program to replace the College's tree canopy and ground landscaping; eliminate the use of insecticides, glyphosate-based herbicides, and synthetic fertilizers by Spring 2021; publish and maintain a website that provides information regarding pesticide use; and ensure that a minimum of 60% of plants newly planted in Spring 2021 and onward be native species, 80% by Fall 2021, and 90% by Fall 2022

Source: SR31, EM, CA

Permanently protect and forest undeveloped land (2020-21).

Facilities will research the legal means and incentives to put land under conservation easements, land trusts, or similar vehicle. Conservation and afforestation on properties such as those in Hopewell could increase carbon sequestration credits, improve aesthetic quality, and potentially offer a resource for teaching and research. This would involve partnership with the NJ Urban Forestry Advisory Council and local land trust such as the Friends of Hopewell Valley Open Space. This would enhance TCNJ's partnership with the wider community. On campus, lake buffers could be enriched to improve water quality.

Source DW4, SR44

Become a registered arboretum (or Tree Campus) (2021-22).

The College's existing tree canopy attracts potential students, employees, and visitors while sequestering carbon. A tree inventory was last conducted since 2013 by a faculty-student team, an assessment that should be repeated in the next two years. The Sustainability Coordinator will

organize scheduled tree inventories, seek recognition as a Tree Campus, and publicize the achievement

Source: BE, SR33, SR48

Increase energy efficiency of buildings (2020-21).

The Facilities Master Plan (p. 12), last updated in 2015, requires that new construction meet LEED Silver energy efficiency standards to decrease future maintenance and energy costs while limiting greenhouse gas emissions. The College has constructed only LEED Silver new buildings since 2005. This requirement should continue and perhaps be increased to LEED Gold, LEED Zero or a similar metric, as determined by a cost-analysis of such a switch submitted to the Board of Trustees

Source: SR 53, SR 55, DW5

Build and connect bike paths (2022-23).

The high cost of construction costs has prevented building a bike path on campus, despite high demand. Building bike paths not only lowers emissions and traffic yet might decrease potential liability. Facilities will study and seek external funding to build bike paths on campus and connect its bikeways and walkways to the Lawrence/Hopewell Trail and statewide network of trails.

Source: CA

Improve efficiency of commuting to campus (2020-21).

Working with others on campus and in the region, the Sustainability Coordinator can realize an increase of ten percent per year of commuting efficiency through simple operational changes such as promoting TCNJ Rides or other carpooling programs, providing desirable parking spaces for alternative energy vehicles, providing access to the PSEG electric vehicle charging stations and publicizing these programs and existing public transportation to the campus community.

Source: CA

Draft note: Suggestions not developed well enough to include: establish outdoor learning spaces (SR35) and create more wet ponds for water runoff (SR 11)

Community Outreach

Create an Environmental Justice database (2021-22).

Because sustainability challenges and climate impacts on communities take different forms based on class, race, gender, citizenship status, (dis)ability, and other markers of inequality, TCNJ's Sustainability Plan should incorporate a documented understanding of specific issues of environmental and climate injustice faced by the surrounding community in Ewing and Trenton, and, more broadly, Mercer County and the State of New Jersey. The development of a database of specific issues will 1) build knowledge of environmental justice issues, as well as action strategies, into the Signature Experience framework, broadly across disciplines; and 2) investigate ways that TCNJ policy and practices might better serve environmental/climate justice in the region. The Environmental/Climate Justice database can be constructed by faculty-student action research teams using frameworks that already exist in the curriculum (such as MUSE, Community Engaged Learning, Independent Research, and Internships) in partnership with campus, community, and governmental partners, including the Bonner Center, ISLES, the Eastern Service Workers Association, the NJ DEP's office of Environmental Justice, and the Sustainability Institute. Once preliminary findings are available, the database can serve as a background and guide for further research and action through existing campus vehicles, such as community engaged learning (incorporated into FSPs and other courses), student-faculty research collaborations (such as MUSE), and service projects for student organizations. Research and service conducted in the community must be conducted using best practices for social action research

Source: DW5, EM

Invite surrounding community to TCNJ environmental programming (2021-22).

Wherever possible, facilities developed by TCNJ for climate mitigation and resilience, should include community beneficiaries. The Sustainability Coordinator will work with the Office of Communications and Brand Management to encourage community participation in both on-campus and off-campus events in education programs and awareness-raising activities around sustainability, climate change, and resilience.

Source: CA, EM

Encourage local businesses (year?).

Engaging with local businesses often can save greenhouse gas emissions. The College as an institution as well, as its individual members, should promote local economic development through purchasing practices and creating a marketing campaign encouraging individual students, staff, and faculty members to patronize local business. Business metrics such as increase in customer base or revenues could assess how well this approach works.

Source: DW4

Summary and schedule.

The following table summarizes the initiatives above, including unit, cooperating units, and time frame.

Recommendation	Project lead	Collaborators	Timeframe
Open Environmental Studies major	ES Committee	Academic Affairs	2020-21
Develop graduate program	Academic Affairs	Academic departments	?
Require general student knowledge	Academic Affairs	Sustainability Coordinator	2022-23
Invite speakers and practitioners	Sustainability Coordinator	Academic Affairs	?
Hire a Sustainability Coordinator	Cabinet	Facilities	2020
Develop a green fund	Advancement	Sustainability Coordinator	2023
Ensure green portfolio	Board of Trustees	Treasurer	2020-21
Work with Sustainability Institute	Academic Affairs	Sustainability Institute	2020-21
Move more operations online	Sustainability Coordinator	All departments and offices	2020-21
Eliminate single use in dining	Dining Services	Auxiliary Services	2020-22
Improve recycling	Environmental Services	Bonner scholars	2021-22
Advertise green admissions	Admissions	Sustainability Coordinator	2023-24
Begin bicycle sharing program	Sustainability Coordinator	Student clubs	2021-22
Energy plan with 2040 neutrality	Facilities	CSPP, Treasurer	2021
Use native, organic plants	Facilities	Student clubs	2021-23
Protect undeveloped properties	Facilities	General counsel	2020-21
Register as a Tree Campus	Sustainability Coordinator		2021-22
Increase building efficiency	Facilities	Board of Trustees	2020-21
Build bike paths	Facilities		2022-23
Improve commuting	Sustainability Coordinator		2020-21
Invite community to green events	Sustainability Coordinator	Communications	2020-21
Encourage local business	?		?
Create EJ database	Sustainability Coordinator	Academic departments	2021-23

The College can demonstrate its commitment to environmental sustainability in several dimensions. Commitment to the goals outlined above can place TCNJ as a leader in higher education and its community in environmentally sustainable practices.