



# UAF Campus Sustainability

Recommendations from the  
Chancellor’s Sustainability Transition Team  
July 2008

## Executive Summary

### *A Vision For Sustainability at UAF*

**UAF strives to be a model of environmental stewardship and social justice by incorporating the ideals of sustainability into every facet of campus life.**

### *Key Recommendations and Organization of this Report*

Our full report—available on the website <http://www.uaf.edu/transition>—looks at nine issues. The proposed “vision” for each issue is presented below. In the following pages, we have included an introduction to each issue and actions that we recommend taking as soon as possible. In addition, we have included the American College & University Presidents’ Climate Commitment and the Talloires Declaration, both of which we recommend signing.

1. Energy	Become a leader in sustainable energy use and generation in the north.
2. Transportation	Provide sustainable transportation systems for students, faculty members and staff. Increase fuel efficiency; reduce emissions and attempt to have no net carbon emissions from the transportation system. Transform UAF from a car-dependent commuter campus into a more compact and environmentally friendly, live-work community.
3. Purchasing	Purchase environmentally and socially preferable products whenever possible.
4. Waste Management	Reduce and ultimately eliminate waste on campus with the ultimate goal of a net zero waste campus.
5. Built Environment	Create superior places to work, study and live that enhance the health of building occupants and are environmentally responsible. Minimize the use of resources while reducing impacts on human health and the environment.
6. Food	Reduce the environmental and social impact of UAF’s food supply and dining services. Increase awareness of the impacts of food production, reduce the energy-intensity of our campus food supply, reduce food waste and support the local and state economy by purchasing Alaska-grown foods.
7. Education & Curriculum	Make UAF a global leader in education, research, and dissemination of information on sustainability.
8. Social Sustainability	Form a committee to consider this in depth as we did not have adequate time or expertise to give this topic the attention it deserves.
9. Processes & Institutions	Establish a permanent, staff office of sustainability and advisory committee. Create new and revise existing administrative and governance institutions and processes to make environmental sustainability a fundamental consideration in decision-making.
Appendix 1.	Sign the American College & University Presidents’ Climate Commitment.
Appendix 2.	Sign the Talloires Declaration.



# 1. Energy

Many steps have been already taken by the UAF Facilities Services to move the campus toward energy sustainability, but a lot more still needs to be done to accomplish this challenging goal. The choices facing UAF are informed by a wide range of issues, such as depletion of recoverable energy sources, wars associated with energy security, and pollution. As America's Arctic University, UAF should take a lead role for sustainable energy in the Arctic. It should have the goal of reducing CO<sub>2</sub> emissions to 1990 levels by 2020, and create a net zero CO<sub>2</sub> emissions university by 2060. (Net CO<sub>2</sub> emissions are an appropriate surrogate of energy sustainability due to their direct relationship to fossil fuels.) There are twin means towards those objectives: energy conservation strategies and practices, and the use and promotion of renewable energy sources.

## *Vision for Energy*

**Become a leader in sustainable energy use and generation in the north.**

## *Recommended immediate actions*

- Establish a permanent Chancellor's Committee on Sustainability Policy and Practices. Charge it with making recommendations for sustainable energy measures. Develop a plan to meet the stated goals via green energy measures (energy conservation and renewable energy) directly connected to the UAF campus.
- Launch an energy awareness campaign. As soon as is feasible, do energy audits at the finest practical scale to support the campaign. Encourage all students and staff to take energy-saving actions ("When not in use, turn off the juice" stickers, etc.).
- Establish a work-order based energy conservation system. Provide incentives for simple energy efficiency measures (switch off all street lights during day, etc.).
- Facilities Services is understaffed. Provide training for current personnel. If necessary, hire more personnel to help perform the energy-efficiency related work; the new positions will pay for themselves in energy savings.
- Start feasibility studies of various power generation options. Examples are: improved efficiency of the UAF power plant; use of alternative fuels, such as biomass; coordinating with GVEA on green power production options (e.g. wind in Healy); use of natural gas when pipeline is built
- Install absorption chillers to cool buildings on the West Ridge. They operate on excess steam and can substitute for the current compression chillers that use a high amount of electricity.
- Advertise the Sustainable Natural Alternative Power (SNAP) program. Solicit contributors. Expand the current SNAP photovoltaic system.
- Establish a sustainability fee for students. Provide a positive analysis of the benefits of the fee. Have clear goals for the students' investment. If the students approve the fee, provide regular information about progress towards those goals.
- Invest in smarter control strategies. Review outdoor and indoor lighting needs, and install smart technology to give finer scale control. Review building temperature needs.
- Highlight sustainable energy related courses at UAF. Promote and support improvements in current courses. Encourage the development of new courses, especially in the core curriculum.
- Sign the American College and University President's Climate Commitment (ACUPCC).



## 2. Transportation

A significant fraction of UAF's total energy cost results from transportation. By increasing fleet fuel efficiency and working towards sustainable transportation systems, UAF will contribute to environmental stewardship and reduce expenses. Efforts should be made to reduce net carbon emissions as much as possible. By encouraging alternatives to car-dependency, UAF can extend its influence into the community. Business travel should be curtailed whenever feasible by using technological alternatives, and when business travel is necessary the resultant emissions should be offset. UAF should encourage more housing close to campus to reduce the impact of commuting.

### *Vision for Transportation*

Provide sustainable transportation systems for students, faculty members and staff. Increase fuel efficiency; reduce emissions and attempt to have no net carbon emissions from the transportation system. Transform UAF from a car-dependent commuter campus into a more compact and environmentally friendly, live-work community.

### *Recommended immediate actions*

- **Increase the fuel economy of the UAF fleet and consider alternative vehicles** (such as bio-fuel or zero-emission vehicles) in the future. Actions will include strict policies on vehicle idling, the use of air conditioning, and the use of appropriately scaled vehicles (big load/big rig, small load/small rig). Consider fleet mileage goals as a criteria to gauge improvements.
- **Reduce emissions from personal vehicles** by increasing the percentage of trips taken in modes other than single-occupant motor vehicles (public transit, walking, biking, carpooling, etc.) and by offering incentives for those who drive compact, fuel-efficient vehicles and/or carpool. Increase parking fees and the cost of parking permits.

- **Create incentives for “telecommuting”** or, where practical, for four day/week-10 hour/day work schedules. Consider putting classes on a MTWR schedule.
- **Encourage the use of teleconferencing** for intra- and extra-campus meetings.
- **Make it easy and convenient to use alternative modes of transportation:** delineate bike lanes on each road, change class schedules to have a 20 minute break between classes, install showers in each building, complete the Tanana Loop and close Yukon Drive to all but the shuttles and essential delivery services, provide covered bike racks at all buildings.
- **Launch a partnership with Zipcar** ([www.zipcar.com](http://www.zipcar.com)), a car sharing program that rents cars by the hour that is now on many campuses.
- **Encourage the FNSB to create a Park-and-Ride network**, and special bus routes during peak periods which serve the many students who live in the areas north and east of campus (Goldhill, Sheep Creek, Goldstream, Ballaine).
- **Install Wifi on campus shuttles and encourage the FNSB to install Wifi on all buses** to encourage ridership.
- **Use more advanced vehicle plug-ins** that provide more temperature sensitivity; consider “Intelligent Parking Lot Controllers” ([www.iplc.com](http://www.iplc.com)) that prevent current draw until the vehicle has cooled.
- **Require all flights be compensated by purchasing carbon offsets;** the Gold Standard [www.goldstandard.org](http://www.goldstandard.org) reviews and investigates marketers of carbon credits.
- **Promote development of a pedestrian-centric community within close proximity to campus.**



### 3. Purchasing

To support campus sustainability at UAF and to minimize negative impacts on society and the environment to the greatest extent possible, university personnel will purchase environmentally and socially preferable products whenever practicable. UAF will provide information and resources for procurement under these guidelines; the key point is to reduce waste at the point of purchase. UAF Transportation Services will purchase vehicles that obtain a minimum of 45 mpg whenever practicable. The University Purchasing Department will make every effort to secure contracts with vendors that are socially and environmentally conscientious, and certified green whenever practicable.

#### *Vision for Purchasing*

Purchase environmentally and socially preferable products whenever possible.

#### *Recommended immediate actions*

- **Purchase commodities that are certified to meet sustainability standards.** Purchase durable and reusable goods and choose items that can be remanufactured, recycled, or composted in order to reduce disposal costs and waste. Factor in a product's estimated life span as well as its energy, maintenance, recycled content and disposal costs. Specify product and packaging take-back. Establish recycled paper standards for paper purchased throughout the campus.
- **Procure remanufactured goods and use refurbishing services.** It is generally much less expensive to buy remanufactured goods or to use refurbishing services than to buy new items. Remanufactured items should require no sacrifice in performance. Check with Purchasing for current contracts in place for remanufactured products.
- **Lease and rent when appropriate.** Consider an operating lease or rental rather than a purchase or capital lease. Lease and rental contracts give vendors the responsibility for the upkeep of goods such as computers and copiers, and for managing them at the end of their useful life. Businesses that lease equipment tend to deal with more durable items, salvage reusable parts, refurbish, recycle, or donate used equipment that can no longer be leased. Renting is a cost-effective option for short-term equipment needs.
- **Purchase goods containing fewer toxic ingredients.** Purchasing goods with fewer or no toxic chemicals reduces hazardous waste disposal, future liability concerns, and the risk of occupational exposure and spills. Low-toxicity products are increasingly available and cost-competitive.
- **Reduce paper use.** Utilize technology to send and store information electronically. E-mail document files instead of faxing hardcopies. Fill out forms online and print only as needed. Store documents electronically instead of storing hard copies. Establish incentives for departments to reduce their paper usage. Review Printing Services rate policy and restructure so the motivation isn't to sell more paper, but to conserve it.
- **Include sustainable requirements and practices in all contracts and bid documents.** Establish procurement guidelines and policies that require language in every solicitation for quote, price and/or services for sustainable products and/or practices. Tailor scoring criteria for bid documents to allow incentive points for sustainable products and/or services.
- **Provide resources for environmentally preferable purchasing, and provide information for socially responsible/ethical purchasing standards.** Purchasers should strive to ensure that the products meet International Labor Organization manufacturing standards and Fair Trade labeling standards.



## 4. Waste Management

Currently, our waste management practices are no model of sustainability. For example, UAF currently uses about 63,000 sheets of bleached white office paper *every day*—that’s a stack 21 feet tall, 365 days of the year. This not only means turning 7 trees per day into pulp, it also means treating it with chlorine bleach and other toxic chemicals, using enormous quantities of water, and using oil to transport the paper to Fairbanks. None of our paper is currently recycled. Likewise, if UAF uses drink containers at the national rate, we use about 4,200 aluminum cans, 2,500 plastic bottles, and 1,500 glass bottles *every day*. A fraction of the aluminum cans are recycled, but none of the plastic or glass bottles.

To change this, UAF must strive to become a **zero waste campus** by reducing and ultimately eliminating waste on campus. To reach this seemingly lofty goal, all waste must be reused, composted, recycled, or turned into energy. In this way, all “waste” products simply become the raw material for a subsequent use. Specifically, UAF will: decrease campus waste going to the landfill to the lowest possible per capita amount; increase the recycling recovery rate and the variety of materials which can be recycled; decrease the amount of hazardous waste produced; and increase the recycled content of materials purchased for use.

### *Vision for Waste Management*

Reduce and ultimately eliminate waste on campus with the ultimate goal of a net zero waste campus.

### *Recommended immediate actions*

- **Launch an awareness campaign based on “Reduce, Reuse, Recycle, and only then Landfill”.** Educate incoming students about the Zero Waste goal. They should think of reduce, reuse, and recycle as a series of filters, each one smaller than the next and each one removing a smaller portion of the waste until, ideally, nothing is left after the recycling step.
- **Ask art students to create sculptures** of our *hourly* consumption of aluminum cans (173), plastic PET bottles (104) and glass bottles (62) and one of our daily use of white office paper (126 reams).
- **Conduct a waste characterization study.** In order to know how to most effectively reduce and divert the waste stream, we must know what it contains and where it originates.
- **The first rule in waste management is “REDUCE.”** By purchasing fewer “goods” in the first place, we not only avoid the need to process the waste, we also avoid the mining, drilling, harvesting and/or processing needed to create the product, package it, and ship it to Fairbanks.
- **Strive to eliminate consumption of disposable bottles and bags.** Give discounts for using refillable mugs and cloth bags. Include reusable drink containers in materials for new students and sell them at cost in all cafeterias. Charge a fee for disposable drink containers and use proceeds to fund the recycling program and to subsidize reusable containers. Sell reusable bags at the bookstore and eliminate plastic bags on campus, or charge a significant fee for them. Use biodegradable to-go containers in all dining halls.
- **Dramatically cut the use of single-sided, double-spaced, wide margin, non-recycled, bleached paper.** Change all campus printers to print double sided and decrease default margins in word processors. All new printers must be capable of duplex (double sided) printing as the default.
- **Compost as much of our organic waste as possible.** See “Food” for more on this topic, although food is not the only organic waste that can be composted. Paper towels, wood shavings and sawdust can also be composted.
- **The second step is “REUSE”.** Encourage the use of “scrap” paper including for students taking quizzes and for homework. Similarly extend the use of other materials.
- **Recycling is the third priority in waste management.** Initiate a large-scale recycling program. Expand the current Facilities Services recycling program. Resume paper recycling. Establish several centralized recycling centers and bins. Use a baler to package and ship sorted materials that cannot be sold or recycled locally.
- **Adapt campus consumption to items that can be recycled.** Right now, aluminum can be recycled, while #1 plastic cannot, so adapt vending contracts to use aluminum cans
- **Work to increase recycling throughout Alaska.** Work with FNSB and major local businesses to create a borough-wide recycling program. Coordinate with other recycling programs in Alaska. Support and sponsor local specialized recycling efforts *e.g.* electronics recycling. Create a business incubator to foster local businesses that use recycled materials as feedstock.
- **Decrease the amount of hazardous waste produced on campus.** Hazardous wastes are shipped out for careful disposal, but more can be done. ALL departments should purchase hazardous materials exclusively through Environmental Health and Safety, to make it easier to track the materials to make sure that they are properly disposed.
- **Develop a “waste-to-energy” system** if sufficient burnable products remain.





## 5. Built Environment

Green building is the practice of increasing the efficiency with which buildings use resources—energy, water and materials—while reducing impacts on human health and the environment. They do this through siting, design, construction, operation, maintenance, and final removal that are sensitive to environmental and human needs. Such buildings also teach by design and by example.

Effective green building leads to: 1) reduced operating costs by increasing productivity and using less energy and water, 2) improved public and occupant health and productivity due to improved indoor air quality, and 3) reduced environmental impacts by, for example, using non-toxic materials and lessening storm water runoff and the heat island effect.

A great deal of work has gone into the development of the US Department of Energy's Leadership in Energy and Environmental Design (LEED) Green Building Rating System™. While we are not recommending LEED certification, this system does provide useful guidelines and a starting place for further discussion of sustainable building practices at UAF. Sustainable buildings are constructed with a minimum of waste and using as much recycled material as possible, have minimum energy usage, optimize indoor environmental quality, and have flexible interior plans to minimize subsequent retrofit costs.

### *Vision for the UAF Built Environment*

Create superior places to work, study and live that enhance the health of building occupants and are environmentally responsible. Minimize the use of resources while reducing impacts on human health and the environment

### *Recommended immediate actions*

- **Conserve Energy.** Optimize the energy performance of all buildings. Use renewable energy whenever possible, such as photovoltaic and passive solar. Install energy efficient appliances. Prohibit the purchase of CRT computer displays.
- **Renovate First.** Whenever practicable, renovate and extend the life of aging buildings rather than building new ones. This will save money and reduce resource use. Do an assessment of the need

for renovation of existing systems and structures in order to improve energy efficiency.

- **Develop Sustainable Sites.** Reduce pollution from construction by controlling soil erosion, runoff, and dust. Reduce pollution and land development impacts from automobile use. Ensure public transportation access, bicycle storage & changing rooms. Use water efficient landscaping: reduce use of potable water for landscaping; reduce irrigation; use native vegetation for landscaping. Use innovative wastewater technologies (gray water, harvested rainwater). Reduce indoor building water use through use of low flow toilets, showers, etc.
- **Use Sustainable Materials & Resources.** Provide space for storage & collection of recyclables. Whenever possible, retrofit buildings. Divert 50% or more of construction waste from disposal. Use materials that are: energy- and water-efficient to produce and use, minimally air or water polluting to manufacture, non-toxic and durable. Optimize use of rapidly renewable materials, materials with recycled content, and/or materials that are extracted, processed & manufactured regionally.
- **Maintain High Indoor Environmental Quality.** Monitor outdoor air intake. Increase ventilation. Use low-emitting adhesives, sealants, paints, coatings, carpeting, composite wood, etc. Control indoor chemical & pollutant sources. Install fine scale control of lighting & thermal systems.
- **Adopt universal design principles in buildings.** Universal design ensures universal accessibility to people of all abilities through the following principles, and the design minimizes hazards and the adverse consequences of accidental or unintended actions.
- **Educate the Community about Green Building.** Build skills and knowledge on green design, construction, and materials selection. Use the physical campus to educate the community on green building. Develop a curriculum related to green building. Post signs in high-traffic areas in notable buildings to raise awareness about green building practices already implemented at UAF. Make design and development processes more transparent to all UAF stakeholders.



## 6. Dining Services

Colleges and universities should commit to the sustainability of our food supply. Many people now lack the information to understand the consequences, both personal and public, of their food choices. Food and agriculture have a broad range of impacts in areas as diverse as labor issues, animal welfare, diet-related health concerns, fossil fuel-derived fertilizers and pesticides, water usage, soil health, energy, wildlife protection and local economies. We recommend that UAF do the following: increase awareness of the impacts of food production; supply healthier, fresher foods; reduce the energy-intensity of our campus food supply; reduce the waste and social impacts associated with our food system; and support the local and state economy by purchasing Alaska-grown foods.

### *Vision for Sustainable Food Services*

Reduce the environmental and social impact of UAF's food supply and dining services. Increase awareness of the impacts of food production, reduce the energy-intensity of our campus food supply, reduce food waste and support the local and state economy by purchasing Alaska-grown foods.

### *Recommended immediate actions*

- **Reduce waste.** Reduce the use of disposable containers. Use recycled products. Use washable or biodegradable dishware. Reduce foodwaste. Give excess food to the Food Bank or to soup kitchens.

Compost food waste, through Golden Heart Utilities or if economically feasible, on campus. Use waste cooking oil for heating or as feedstock for biodiesel. Avoid individually packaged consumables.

- **Increase awareness.** Educate the campus community about the environmental, social and health challenges associated with food production, and about the benefits of local/regional farms, organic growing methods and Fair Trade. Sponsor food education programs via posters and table tents to create respect for food, reduce the adverse health effects of a poor diet, and reduce food waste.
- **Reduce the energy intensity of our food supply.** Reduce the fossil fuel energy used in food production. Reduce the fossil fuel energy used in transporting our food. Sponsor a "Low Carbon Diet Day" each semester. Reduce the use of beef by 25%.
- **Supply healthier, fresher foods and reduce other environmental impacts** Offer foods that are grown as locally as possible. Establish an organic garden for research, demonstration and production. Eliminate trans-fat from UAF dining services products. Offer organic foods as an alternative.
- **Reduce social impacts.** Include Fair Trade products whenever possible.
- **Develop and enforce catering guidelines.** These should include sections on food, waste, advertising, energy, and transportation.



## 7. Education & Curriculum Summary

Successful university sustainability programs fully integrate educational activities and curricula toward more sustainable practices and constructive relationships with communities. UAF can become a comprehensively sustainable university by incorporating sustainability into curricula and programs. Sustainability studies at all levels should be highlighted and supported. Experiential learning in areas relevant to sustainability simultaneously benefit students and the community. Another key leverage can be used by teaching sustainability principles and practices in education programs, and to teachers and K-12 students. UAF should become an integral part of state-wide, national and global networks for sustainability education.

### *Vision for Education & Curriculum*

Make UAF a global leader in education, research, and dissemination of information on sustainability.

### *Recommended immediate actions*

#### **Raise student awareness through curricular change.**

Consider sustainability as a new Core Curriculum requirement; or include more courses on related topics (*e.g.*, social sustainability, ecology) as options in Perspectives on the Human Condition, and Natural Sciences Core requirements. Review existing curricular resources and disseminate that information to students.

- **Support new course development and existing course revision.** Provide support to develop appropriate courses and modules that may fulfill Core Curriculum, major or minor requirements. Seek extramural funding for course and program development. Encourage the inclusion of sustainability concepts and materials in relevant existing courses.
- **Support innovative program development.** Inventory programs, courses, and campus organizations concerned with sustainability. Foster student exchanges and co-curricular activities with other colleges and universities committed to sustainability. Promote use of existing data bases of syllabi and instructional materials, such as those at AASHE and the Campus Ecology Program of the NWF. Coordinate, support, publicize, and find synergies among academic programs and

departments that currently offer coursework relevant to sustainability issues.

- **Recruitment.** Recruit students and staff who are interested in and can contribute to sustainability goals. Recognize that a majority of students consider sustainability when choosing a college or university.
- **Support interdisciplinary graduate education emphasizing sustainability.** Provide faculty and students with the means to pursue and support sustainability research.
- **Raise awareness of current efforts and needs.** Survey faculty, department chairs, deans and directors. Make presentation at fall new student orientation. Put sustainability “button” on homepage of UAF website. Solicit student input on campus sustainability practices.
- **Provide student advising and support for sustainability studies.** Direct students’ attention toward the importance of sustainability concepts and practices to their personal goals. Provide student and faculty awards and fellowships for sustainability studies.
- **Coordinate existing efforts.** Inventory all majors, minors and programs offering and/or requiring internships or civic engagement projects.
- **Expand and promote experiential opportunities, community engagement and careers.** Integrate the activities of relevant campus organizations, centers, institutes and programs into the curriculum through experiential learning and student internships. Encourage local and state organizations, agencies and businesses to look to UAF students as a source for “sustainability conscious” personnel.
- **Inform K-12 curricula in Alaska, and educate K-12 teachers.** Integrate sustainability education into all School of Education programs. Offer sustainability consultations in local schools.
- **Participate in local, national and global networks for sustainability education.** Promote participation in established associations. Develop relationships for student exchanges and for co-curricular activities. Publicize goals and achievements in appropriate media and scholarly venues.





## 8. Social Sustainability

### *Recommended immediate actions*

Form a committee to consider this in-depth as we did not have adequate time or expertise to give this topic the attention it deserves.

Even as broad agreement has emerged among scholars and practitioners on the importance of sustainability, identifying key areas of concern and the appropriate policies to address them continue to generate controversy. Much of this controversy comes from the complex and interdependent nature of the huge set of problems that need to be addressed in a sustainable fashion; and the fact that solutions require substantial behavioral changes as well as new policies, institutions and practices.

The concepts and documents that guided this committee and that have become the common points of departure for most sustainability planning and management efforts in colleges and universities around the world—the Brundtland Commission Report and Agenda 21—clearly state that environmental, economic, cultural and social practices all impact each other in ways that are both fundamental and difficult to predict.

Originally, this transition team included social sustainability in its areas of concern. UAF faces challenges in becoming a more socially sustainable campus, i.e. a place where faculty, staff, students, administrators and the supporting communities can be secure, productive and valued; a place that promotes a stable but dynamic sense of community and that values difference and diversity as well.

However, it quickly became apparent that to address these concerns would require a significant additional effort and an expertise not readily available to the team. We, therefore, strongly urge the Chancellor to consider the establishment of a separate team or committee on social sustainability that could tackle the following issues (among others).

- Fair compensation for students, staff, and faculty for the purposes of effective recruitment and retention
- Genuine equal employment opportunity and fair compensation regardless of gender, race, age, religion, etc.
- Enhanced efforts to promote gender, ethnic and racial equality
- Adequate and affordable healthcare (including dental, eyeglasses and mental health programs) for all students, staff, adjuncts, and faculty
- Enhanced consideration for the requirements of disabled members of the UAF community including the incorporation of ADA standards in all construction and renovation, and retrofitting classrooms and other facilities to better accommodate the hearing and visually impaired.
- Enhanced respect and support for cultural diversity
- Increased attention to accommodating the professional and personal needs of spouses and family members in recruitment and retention of faculty and staff
- Affordable housing and childcare on campus
- State of on-campus housing stock for faculty and students
- Student wages have not changed since 2003 and are on a par with Walmart, Sam's Club and McDonalds.
- Over half of all undergraduates at UAF have student loans, which average over \$28,000 when they graduate. Direct more students to grants and other nonloan funding sources. Educate students about terms of student loans and long term consequences of student loan debt. Move students away from unsubsidized loans.



## 9. Processes and Institutions

To prevent merely cosmetic actions in the name of making UAF more sustainable, institutional changes are needed. The institutional changes are proposed to make sustainability a fundamental and integral part of key decision-making processes. Only a minimal expansion of the existing organizational structures and processes of governance, policy-making and implementation will be needed. It is equally important that changes take place from the “bottom up”: that students and staff understand and support changes towards sustainability. Changes to established institutions and processes should facilitate a participatory approach to making and implementing sustainability policy and practices, and should ensure sufficient administrative capacity and commitment to carry out and fine-tune sustainability standards.

### *Vision for Sustainable Processes & Institutions*

Establish a permanent, staffed sustainability office within the Chancellor’s Office with a supporting sustainability committee chosen from the UAF community. Create new and revise existing administrative and governance institutions and processes to make environmental sustainability a fundamental consideration in decision-making.

### *Recommended immediate actions*

- **Consult with campus governance bodies.** The Faculty Senate, Staff Council and ASUAF are key players in determining ways to make UAF a more sustainable organization. Consult with them to take sustainability into account in budgeting and program assessment.
- **Incorporate sustainability considerations into budgeting.** Develop methods for considering medium- and long-term sustainability impacts in annual budgeting at the campus-wide, college/school/institute, and program/department levels.
- **Create a Chancellor’s Committee on Sustainability Policy and Practices.** This will be a permanent advisory body for providing authoritative analysis and recommendations. The committee should have effective representation of faculty, staff, students, and community. It will garner input from relevant academic areas, and from relevant technical expertise on campus and in the community.
- **Establish functional groups (task forces) as needed.** Charge them with clear goals regarding the implementation of new sustainability policies, practices and standards. Create them with sunset provisions and reporting dates.
- **Encourage Faculty Senate and Staff Council to establish committees on sustainability.** Promote the existing efforts by student groups.
- **Increase extracurricular student involvement.** Work with ASUAF and the student recycling program to establish a set of programs and practices aimed at making sustainability a central part of daily activities.
- **Confer with Chancellors of UAA and UAS.** Promote inter-MAU activities that increase the sustainability of the UA system as a whole. Encourage effective communications with the UA Office of University Relations and with the UA Regents on sustainability policies and practices.



## 10. Appendix 1—American College & University Presidents Climate Commitment

We, the undersigned presidents and chancellors of colleges and universities, are deeply concerned about the unprecedented scale and speed of global warming and its potential for large-scale, adverse health, social, economic and ecological effects. We recognize the scientific consensus that global warming is real and is largely being caused by humans. We further recognize the need to reduce the global emission of greenhouse gases by 80% by mid-century at the latest, in order to avert the worst impacts of global warming and to reestablish the more stable climatic conditions that have made human progress over the last 10,000 years possible.

While we understand that there might be short-term challenges associated with this effort, we believe that there will be great short-, medium-, and long-term economic, health, social and environmental benefits, including achieving energy independence for the U.S. as quickly as possible.

We believe colleges and universities must exercise leadership in their communities and throughout society by modeling ways to minimize global warming emissions, and by providing the knowledge and the educated graduates to achieve climate neutrality. Campuses that address the climate challenge by reducing global warming emissions and by integrating sustainability into their curriculum will better serve their students and meet their social mandate to help create a thriving, ethical and civil society. These colleges and universities will be providing students with the knowledge and skills needed to address the critical, systemic challenges faced by the world in this new century and enable them to benefit from the economic opportunities that will arise as a result of solutions they develop.

We further believe that colleges and universities that exert leadership in addressing climate change will stabilize and reduce their long-term energy costs, attract excellent students and faculty, attract new sources of funding, and increase the support of alumni and local communities.

**Accordingly, we commit our institutions to taking the following steps in pursuit of climate neutrality:**

1. Initiate the development of a comprehensive plan to achieve climate neutrality as soon as possible.
  - a. Within two months of signing this document, create institutional structures to guide the development and implementation of the plan.
  - b. Within one year of signing this document, complete a comprehensive inventory of all greenhouse gas emissions (including emissions from electricity, heating, commuting, and air travel) and update the inventory every other year thereafter.
  - c. Within two years of signing this document, develop an institutional action plan for becoming climate neutral, which will include:

- i. A target date for achieving climate neutrality as soon as possible.
    - ii. Interim targets for goals and actions that will lead to climate neutrality.
    - iii. Actions to make climate neutrality and sustainability a part of the curriculum and other educational experience for all students.
    - iv. Actions to expand research or other efforts necessary to achieve climate neutrality.
    - v. Mechanisms for tracking progress on goals and actions.
  2. Initiate two or more of the following tangible actions to reduce greenhouse gases while the more comprehensive plan is being developed.
    - a. Establish a policy that all new campus construction will be built to at least the U.S. Green Building Council's LEED Silver standard or equivalent.
    - b. Adopt an energy-efficient appliance purchasing policy requiring purchase of ENERGY STAR certified products in all areas for which such ratings exist.
    - c. Establish a policy of offsetting all greenhouse gas emissions generated by air travel paid for by our institution.
    - d. Encourage use of and provide access to public transportation for all faculty, staff, students and visitors at our institution
    - e. Within one year of signing this document, begin purchasing or producing at least 15% of our institution's electricity consumption from renewable sources.
    - f. Establish a policy or a committee that supports climate and sustainability shareholder proposals at companies where our institution's endowment is invested.
    - g. Participate in the Waste Minimization component of the national RecycleMania competition, and adopt 3 or more associated measures to reduce waste.
  3. Make the action plan, inventory, and periodic progress reports publicly available by providing them to the Association for the Advancement of Sustainability in Higher Education (AASHE) for posting and dissemination.
- In recognition of the need to build support for this effort among college and university administrations across America, we will encourage other presidents to join this effort and become signatories to this commitment.
- Signed,

*The Signatories of the American College & University Presidents Climate Commitment  
(over 500 to date)*



## 11. Appendix 2—Talloires Declaration

(pronounced Tal-Whar) [http://www.ulsf.org/programs\\_talloires.html](http://www.ulsf.org/programs_talloires.html)

We, the presidents, rectors, and vice chancellors of universities from all regions of the world are deeply concerned about the unprecedented scale and speed of environmental pollution and degradation, and the depletion of natural resources.

Local, regional, and global air and water pollution; accumulation and distribution of toxic wastes; destruction and depletion of forests, soil, and water; depletion of the ozone layer and emission of "green house" gases threaten the survival of humans and thousands of other living species, the integrity of the earth and its biodiversity, the security of nations, and the heritage of future generations. These environmental changes are caused by inequitable and unsustainable production and consumption patterns that aggravate poverty in many regions of the world.

We believe that urgent actions are needed to address these fundamental problems and reverse the trends. Stabilization of human population, adoption of environmentally sound industrial and agricultural technologies, reforestation, and ecological restoration are crucial elements in creating an equitable and sustainable future for all humankind in harmony with nature.

Universities have a major role in the education, research, policy formation, and information exchange necessary to make these goals possible. Thus, university leaders must initiate and support mobilization of internal and external resources so that their institutions respond to this urgent challenge.

**We, therefore, agree to take the following actions:**

- 1. Increase Awareness of Environmentally Sustainable Development**  
Use every opportunity to raise public, government, industry, foundation, and university awareness by openly addressing the urgent need to move toward an environmentally sustainable future.
- 2. Create an Institutional Culture of Sustainability**  
Encourage all universities to engage in education, research, policy formation, and information exchange on population, environment, and development to move toward global sustainability.
- 3. Educate for Environmentally Responsible Citizenship**  
Establish programs to produce expertise in environmental management, sustainable economic development, population, and related fields to ensure that all university graduates are environmentally literate and have the awareness and understanding to be ecologically responsible citizens.
- 4. Foster Environmental Literacy For All.**  
Create programs to develop the capability of university faculty to teach environmental literacy to all undergraduate, graduate, and professional students.
- 5. Practice Institutional Ecology**  
Set an example of environmental responsibility by establishing institutional ecology policies and practices of resource conservation, recycling, waste reduction, and environmentally sound operations.
- 6. Involve All Stakeholders**  
Encourage involvement of government, foundations, and industry in supporting interdisciplinary research, education, policy formation, and information exchange in environmentally sustainable development. Expand work with community and nongovernmental organizations to assist in finding solutions to environmental problems.
- 7. Collaborate for Interdisciplinary Approaches**  
Convene university faculty and administrators with environmental practitioners to develop interdisciplinary approaches to curricula, research initiatives, operations, and outreach activities that support an environmentally sustainable future.
- 8. Enhance Capacity of Primary and Secondary Schools**  
Establish partnerships with primary and secondary schools to help develop the capacity for interdisciplinary teaching about population, environment, and sustainable development.
- 9. Broaden Service and Outreach Nationally and Internationally**  
Work with national and international organizations to promote a worldwide university effort toward a sustainable future.
- 10. Maintain the Movement**  
Establish a Secretariat and a steering committee to continue this momentum, and to inform and support each other's efforts in carrying out this declaration.



## *12. Sustainable Campus Transition Committee Members*

Chair: Susan Todd, Assoc. Professor, Natural Resources Management, SNRAS [susan.todd@uaf.edu](mailto:susan.todd@uaf.edu)

Authors of the chapters included in this document:

Ed Foster, Director of Operations & Maintenance, Facilities Services, [efoster@fs.uaf.edu](mailto:efoster@fs.uaf.edu)

Ron Johnson, Professor, Professor, Mechanical Engineering, [ffraj@uaf.edu](mailto:ffraj@uaf.edu)

Tomas Marsik Post-Doctoral Research Fellow, Electrical Engineering, [fttm1@uaf.edu](mailto:fttm1@uaf.edu)

Gary Newman, Systems Analyst, Fisheries & Ocean Sciences, [gary@sfos.uaf.edu](mailto:gary@sfos.uaf.edu)

Channon Price, Assoc. Professor, Physics, [ffcpp@uaf.edu](mailto:ffcpp@uaf.edu)

Jonathan Rosenberg, Assoc. Professor, Political Science, [ffjr@uaf.edu](mailto:ffjr@uaf.edu)

Eli Sonafrank, NRM student, member SCTF, and Director of Recycling, [fsaes1@uaf.edu](mailto:fsaes1@uaf.edu)

Members of the Committee whose schedules prevented them from taking an active role in writing:

Tom DeLong, Alaska Biological Research and Board Member of GVEA, advocate of GVEA SNAP program

Craig Fleener Former Executive Director at Council of Athabascan Tribal Governments  
[chizhur@hotmail.com](mailto:chizhur@hotmail.com)

Chelsey Kuester Community Development Director, Fairbanks Downtown association

Mike Musick Outreach Consultant, Cold Climate Housing Research Center

Rick Stiener UAA Professor, Marine Conservation Specialist UAA, Anchorage  
[afrgs@uaa.alaska.edu](mailto:afrgs@uaa.alaska.edu)

Richard Wies UAF Prof, Electrical & Computer Engineering [ffrww@uaf.edu](mailto:ffrww@uaf.edu)

