



UNIVERSITY *of* WASHINGTON



A Climate of Change:

Lessons in Sustainability for Higher Education

Letter of Introduction

To our community and supporters,

Sustainability is in our nature at the University of Washington. It is woven into the fabric of our mission to advance curriculum, teaching and research. With an eye toward sustainability, we are tackling our world's most complex and critical problems.

As chair of the University's Environmental Stewardship Committee, we have made tremendous strides in developing a framework to integrate our Climate Action Plan and sustainability goals within our facility operations and educational mission.

To reinforce this, President Young issued an executive order on Environmental Stewardship & Sustainability which ensures that sustainability stays at the core of what we teach our students and how we support faculty and research. It also guides us toward minimizing our carbon footprint within our physical buildings and stewardship of our land and assets.

I am proud to introduce our leaders who share their thoughts and encouragement for continuing on our journey for a sustainable future. As Dean of the Evans School of Public Affairs, it is clear to me that achieving our stewardship goals will only happen if we combine our perspectives, disciplines and expertise. We can't afford to operate and think in silos. Sustainability is inherently pushing us to become more innovative and efficient. At UW, our vision is to make sustainability a living and breathing reality on our campus grounds and classrooms, and we want to provide opportunities for students to be at the forefront of living sustainably. This is our responsibility as a higher education institution.

We make collaboration our recipe for success where students are communicating and working with faculty and staff side by side to address the pressing environmental issues we are facing today. UW students are a driving force for social change. From the first sit-in that spawned recycling in the 1970's, to a more recent advocacy for signing our Climate Action Plan, students have been and will continue to be a voice.

So, it is with real pleasure that I introduce our leaders who will share a point of view about sustainability and our role within this Climate of Change.

Warm regards,



Sandra Archibald

Dean, Evans School of Public Affairs

Chair, Environmental Stewardship Committee

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Turning the University Inside Out

After an election season in which the topic of the environment was all but ignored, President Obama's pledge to action in his inaugural and State of the Union addresses has kindled long-simmering debates on how our nation should move forward in addressing our sustainability challenges. What are the most viable options for clean energy? Should we focus resources on mitigation or adaptation? What are the economic and social equity impacts of taking action on the environment? While there is no clear single direction in which all of the answers to these and other questions will be found, any path to sustainability must run through our colleges and universities.

Increasingly, the sustainability challenges we face today require connected, integrative solutions based on highly collaborative problem-solving research that spans disciplines and reaches across geographic boundaries. Long established as incubators for discovery, universities are particularly well-suited for this kind of research. From developing clean energy sources and technologies, to Smart Grid and other initiatives, America's research universities, often in collaboration with one another as well as partners in both the public and private sectors, are at the forefront of innovation in sustainability research.

“By making sustainability a priority in our daily operations and practices, we demonstrate in an authentic way our commitment to making a better world for us all.”

There's no question that the advances we will see in the future – alternative energy sources, new materials that will enable us to harvest energy from those sources, policies that will govern the use of new innovations and adaptations – will emerge from work being done at universities today. Yet while we look forward to those breakthroughs, a great deal of non-research related activity happens on campuses that underscores the unique role colleges and universities play in advancing sustainability and from which we can take both inspiration and valuable lessons right now.



Michael K. Young

President, University of Washington

Michael K. Young is President of the University of Washington. Prior to this, he served as President at the University of Utah. Before assuming the presidency at Utah, he was Dean at the George Washington University Law School. He was also a professor at Columbia University for more than 20 years. President Young has held numerous government positions. He was a law clerk to the late Justice William H. Rehnquist of the United States Supreme Court and he served in the Department of State under President George W. Bush.

Over the last several years, the Ivory Tower has undergone significant greening. Pretty much everything connected to campus life has been put under the sustainability microscope. At the University of Washington (UW), for example, our buildings have gardens on their roofs and carry certifications such as LEED Silver, Gold, and Platinum. We are biking to school and work, and recycling and composting when we get there. Our students are using sensors to measure their energy use in their residence halls, and we are reclaiming water to use

in landscaping. Our custodial teams use green cleaning products, and our gardeners brew special “teas” to use instead of pesticides.

Some of the reasoning behind the decision to go green is purely financial. As a case in point, we have saved \$12.83 million in utility costs over the past year at the UW as a result of the myriad energy efficiency projects we have implemented. But it really goes much deeper than money alone.

“Every year we send out about 15,000 graduates who have lived and breathed this lifestyle; it is not unrealistic to expect that they will carry this way of living with them.”

For colleges and universities – especially public ones – engaging with our communities is fundamental to our mission. We all have a responsibility to turn our universities inside out – that is, to take the wealth of ideas percolating on our campuses into our community, whether that community is across the street or across the globe. By making sustainability a priority in our daily operations and practices, we demonstrate in an authentic way our commitment to making a better world for us all. At the same time, it de-mystifies the work being done at universities, connecting discernible, concrete practices with an issue as complex as climate change.

By the way we live on our campus, we also teach our students every day what it takes to live sustainably. And it’s a lesson they really take to heart. Our students voted

themselves on a set of fees that goes into a Campus Sustainability Fund from which they finance their own sustainability projects, including, do-it-yourself bike fix-it stations, green walls, and a bioswale to filter pollutants from storm-water runoff in a parking lot. Every year we send out about 15,000 graduates who have lived and breathed this lifestyle; it is not unrealistic to expect that they will carry this way of living with them into the real world.

In a similar vein, another unique strength of universities is our graduates who understand the innovations of today so well that they will continue developing the innovations of tomorrow. We see this process taking root every day on our UW campus where our students have undertaken such ambitious projects as building a 3D printer that can transform waste plastic into composting toilets and rain-catchment systems and developing an electric vehicle drive train that converts any car from gas to electric power. Speaking personally, I cannot wait to see what they come up with next.

The energy and commitment of our students are powerful testaments to the exceptional efficacy of colleges and universities to lead the way to sustainability. We provide laboratories for future advances, as well as for what works now. By leveraging this experience, we can change the world – ensuring a healthier, greener, more sustainable planet for ourselves and for generations to come.

A Leader in Sustainability

The University of Washington is consistently recognized as a leader in sustainability:

- Named to the Princeton Review’s yearly Green Honor Roll
- Honored by the Sierra Club on their annual “Cool Schools” list
- Received a Gold rating by the national Sustainability Tracking, Assessment & Rating System (STARS)

How to Tackle the Most Critical Environmental Issues of 2013



Lisa J. Graumlich

Dean, UW College of the Environment

Dr. Lisa J. Graumlich is the inaugural Dean of the College of the Environment at the University of Washington. As Dean, she leads a College with unparalleled depth and breadth in environmental systems: from the forests to the seas and from the depths of the earth to the edges of the solar system. As a scholar, Graumlich pioneered the use of tree-ring data to understand long-term trends in climate, focusing on the mountains of western North America.

I got my first sense of environmental science as a child growing up in Toledo, Ohio. Located on the shores of Lake Erie, Toledo has a number of beaches. But we never spent any time near the sand – because Lake Erie was the largest dying body of water in the world, and the beach was toxic.

That said, my family was happy they weren't in Cleveland, where the Cuyahoga River spontaneously combusted.

The water quality has improved substantially in Lake Erie and the Cuyahoga, thanks to what some people

call the “3 S’s” – the problems were simple; there was a “sinner”; and there was an easily identifiable solution.

But unlike these 20th century environmental problems that we faced back in Ohio during my childhood, the sustainability issues we confront today are incredibly large and complicated.

Indeed, the environmental challenges of 2013 are hardly simple or one dimensional; the “sinners” are many (all of us, in some cases); and the solutions are often highly complex.

When you think about saving Puget Sound in the 21st century, for example, it's not like you can find a single answer that will automatically extend its precious life.

“We approach environmental problems from a multi-dimensional point of view, and we try to think about the full complexity of these issues, pulling connections and expertise from a variety of sources.”

To be perfectly honest, these issues are just too big for one person or one lab to solve. The days of the one person, the “hero,” who will save us all through research or advocacy are long over.

Instead, we must rely on teams of excellent scientists doing cutting-edge research. They provide the base from which we can assess trade-offs while looking for solutions that embrace the full complexity of the environmental systems we live and work in today.

More specifically, large-scale challenges like climate change or ocean acidification require visionary thinking and collaborative scientific work that spans a variety of fields and disciplines.

And that's one of the reasons why the College of the Environment at the University of Washington was founded.

We approach environmental problems from a multi-dimensional point of view, and we try to think about the full complexity of these issues, pulling connections and expertise from a variety of sources.

We also give students opportunities to engage in research individually, and on interdisciplinary teams, working side-by-side with faculty and other professionals to address significant real-world research and application problems.

“We continue to rely and build upon the same kind of deep, fundamental science that have always served as the foundation of our various disciplines.”

Finally, we create the capacity for students to learn from each other. Making sure they can partner across disciplines and skill sets while they’re at the College of the Environment will help them succeed as young professionals at a host of different organizations and institutions upon graduation.

This interdisciplinary approach – which could include an earth sciences faculty member, engineer, business student, and a historian all working together – is very different from the way things worked in the past.

We continue to rely and build upon the same kind of deep, fundamental science that have always served as the foundation of our various disciplines, from oceanography to atmospheric sciences. Now we build multi-disciplinary structures on those foundations that allow us to explore challenges of incredible scale and complexity.

And, in addition to fostering peer-to-peer and faculty-to-student learning, these teams require their members to reframe their questions in order to find hugely important solutions.

The learning also requires an ability to do the science – both in the research lab and in the experiential field.

In recent years, our students have been able to work off-campus in teams in an effort to solve significant environmental problems.

One of our young atmospheric scientists, for example, helped the city of Bellevue, near Seattle, create a carbon management plan. A fisheries student collaborated with the Seattle Restaurant Association on a guide for sustainable fish sources. And a number of students are involved with a group that is developing processes to convert fast-growing trees into biofuels.

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In the end, whenever I’m asked how we educate and nurture the sustainability leaders of tomorrow, I usually respond by talking about the importance of multi-disciplinary teams. Joining together in cutting-edge research or real-world projects is the only way we can effectively and efficiently tackle the critical challenges facing our planet in the 21st century.

The Millennials' New Planetary Passion

I am 57 and right in the middle of the baby boom generation. One of the most memorable moments of my childhood took place in 1969, when we landed a man on the moon. While this was a marvelous, celebratory moment in terms of scientific advancement, the way it was cast sums up my generation's previous view of the environment. Back then, it was about conquering nature; not exploring it, or living with it. Boomers – and their parents – thought humans were at the center of the universe; and we believed that we could be in charge and in control of the world, or worlds, around us. We thought it was cool that you could make food that had an infinite shelf life, we took pride in manicured lawns that were devoid of weeds, and we reveled in the gas-guzzling RV camper road trips into the wilderness.

The current Millennials I see on college campuses have a very different relationship with nature. First of all, unlike the Baby Boomers, they actually experience nature. And secondly, this new generation is deeply concerned – and even alarmed – about the fact that nature is disappearing so rapidly. This makes sense, because students today are watching and witnessing animals become extinct, oceans rise, and ice packs melt – right before their very eyes.

“I am so impressed with the passion and intelligence that our Millennial students are bringing to bear on sustainability issues. It is a true demonstration of head and heart working together.”

But there's another factor at work here, too. Millennials have lived virtually their entire lives in a digital world that provides immediacy – mostly in the form of information access. But this immediacy also means that Millennials understand and expect fairly instant consequences – both good and bad – as a result of the world's actions and activities. Social media has certainly helped this



Ana Mari Cauce

Provost & Executive VP, University of Washington

Ana Mari Cauce, Provost and Executive Vice President, joined the University of Washington faculty in 1986 as an Assistant Professor after earning degrees in English and Psychology from the University of Miami, and a Ph.D. in Psychology, with a concentration in Child Clinical and Community Psychology, from Yale University. As Provost, she is the University's Chief Academic Officer, responsible for overseeing the education, research, and service missions. She is also responsible for resource allocation. And she works closely with the President on strategic planning and long-term decision-making.

lightning fast pace to take hold as an important part of the Millennial DNA.

One of the positives here is that Millennials react much more quickly to perceived problems like environmental degradation or sustainability. They are accountable. They get on it. And they stay on it.

But, just as significant as this Always On attitude and approach, the Internet has imbued this new generation with a

sense of transparency, engagement and collaboration.

“As university administrators, we have had to understand, adapt and embrace the Millennial activism when it comes to sustainability.”

I see this sustainability collaboration at the University of Washington, where I teach and work.

In 2010, for example, students collected 5,000 signatures in favor of levying a self-tax for sustainability. These green fees, deducted as a portion of student activity funds, help support on-campus sustainability projects that students select and administer. Our students have also set up a governance structure to make sure this green fund is always run by, and for, future generations of students.

Funding the Future

Created by students and supported by a student activities fee, the Campus Sustainability Fund distributes money to student-led sustainability projects.

The Fund’s coordinators help their fellow students turn sustainability ideas into proposals for funding, and foster relationships with campus units that can empower students in their initiatives.

The program provides a valuable leadership experience for students while funding projects that help expand the University’s sustainability efforts.

I’ve also seen students in biology classes start a farm on campus. This hands-on learning endeavor has grown into a thriving and collaborative student-run enterprise that now sells produce to our food services division.

And our students are working side by side with faculty in our laboratories, doing important research that helps us track climate change, develop smart grid technology so that we can use energy more efficiently, and develop new, more sustainable energy sources from the sun, the wind, and water.

“One of the positives here is that Millennials react much more quickly to perceived problems like environmental degradation or sustainability. They are accountable. They get on it. And they stay on it.”

As university administrators, we have had to understand, adapt and embrace the Millennial activism when it comes to sustainability. And that’s why we work hard every year to enhance our environmental consciousness and ecosystem on campus. We want to make sure that the important new green behavioral changes can take root and sprout.

I am so impressed with the passion and intelligence that our Millennial students are bringing to bear on sustainability issues. It is a true demonstration of head and heart working together. It’s also a real example of learning that will have meaning, both on and off campus.

The Millennials want their children to be able to experience a natural world. They see a problem – or many problems – with the environment, and they are sincerely seeking solutions that will last. That’s an opportunity and blessing for all of us who want to replenish and preserve the planet.

Going For the Green: Sustainability Benefits in Higher Education



V'Ella A. Warren

Senior Vice President, University of Washington

V'Ella Warren is the Senior Vice President and Treasurer, Board of Regents at the University of Washington. Prior to joining the UW in 1987, she worked in commercial banking and manufacturing. Warren was the Vice President of the Asset Liability Planning for Seafirst Bank (1980–1985) and People's Bank (1985–1987). She worked in Indonesia for Union Carbide (Manager, Management Development) and Springs Mills (Vice President, Personnel) in the mid-70's, before moving into the finance arena.

Sustainability delivers a host of significant business and financial benefits to higher education. In addition to offering tremendous educational and environmental advantages to a college or university, it also makes sound economic sense — especially with resources tightly constrained for the foreseeable future.

At the University of Washington (UW), we've implemented many conservation projects over the years that have embraced smarter processes and technologies for irrigating our grounds and powering our infrastructure.

Last year, we saved \$12 million as a result of our water and energy conservation efforts. We also saved \$1.2 million in 2012 by diverting waste from landfills — and recycling and composting. That's hard money it would have taken to dump trash. These savings from sustainability can have an impact on the affordability of our education. If it comes down to spending \$12 million more on utility bills versus student scholarships, for instance, the choice is pretty clear-cut. And, if saving \$12 million on energy and water outlays can help us keep tuition costs in line, that's good business sense.

Sustainability can affect college affordability in another way, too.

“At the University of Washington (UW), we've implemented many conservation projects over the years that have embraced smarter processes and technologies for irrigating our grounds and powering our infrastructure.”

When we cost out the development and construction of our facilities, for example, we recognize that sustainable building features — like gel in the walls that either holds in heat or pushes it out, depending on the temperature — will ultimately save energy and money. This means that we can hold down costs over time.

Our sustainability programs transcend hard-cost savings.

Being committed to sustainability has helped us attract research dollars and a high-quality faculty that is bringing in those research dollars. One reason research sponsors are willing to invest in the UW is because they see an environmental leader with rock-solid societal values.

A good example is the way we were recently invited to participate in a regional smart-grid project funded by the U.S. Department of Energy (DOE). Bringing together our facilities services organization and engineering school as partners, the project helped us to recruit a

nationally acknowledged smart-grid expert as part of our faculty. In addition to assisting us with attracting the best engineers and smartest researchers, the smart-grid project enables our students to participate in a groundbreaking sustainability experiment that includes monitoring our building energy use through metering.

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Sustainability offers a wonderful training ground for good student decision-making. The UW has a student-run and student-financed sustainability fund, and each year students decide what sustainability projects they will support on campus, weighing the investment trade-offs in the process.

The UW Farm, which sells organic produce to the UW dining rooms, is financed in part by the student sustainability fund. So, not only do students get hands-on learning and business experience here, they also get the opportunity to deliver a healthy menu and diet for their on-campus peers through sales of their produce to the University – a virtuous circle all the way around.

Another powerful financial impact stemming from our sustainability efforts is the admissions advantage this gives us when it comes time to competing for the best and brightest students.

Many smart, passionate and caring students – the regional and national leaders of tomorrow – come to the UW because of our 21st century environmental programs and curriculum. Our green reputation is also a magnet. And, in terms of brick and mortar, our LEED

buildings and residence halls are a major draw as well.

Millennial students are deeply engaged in sustainability today – in much the same way as the Baby Boomers were focused on the Vietnam War. But the difference is that the students of the 1960’s and 70’s were at odds with their colleges and universities, while those of 2013 are in sync with the many green faculty, staff and administrators they encounter on campus.

“Another powerful financial impact stemming from our sustainability efforts is the admissions advantage this gives us when it comes time to competing for the best and brightest students.”

If there’s an argument, it’s how – not whether – to generate the best possible sustainable outcomes.

Looking at the whole picture, the bottom line is that sustainability helps higher education save money, contribute to educational affordability, attract research dollars, and recruit top-tier faculty and students who will add considerable long-term value to society. That’s a terrific return on an eminently reasonable investment.

Campus and Community: The New Sustainable Inclusivity

Universities are not isolated ivory towers; they are attached to surrounding communities. So, one of the most important questions is how do on-campus sustainability efforts ripple out, well beyond the quadrangle, to the non-collegiate neighborhood at large?

The answer, in a word, starts with humility. From the very beginning, the university must openly acknowledge that it doesn't have all the answers on its own. This is critical for success when dealing with complex issues centering on sustainability and climate change. And so is the notion that there is no right path or direction.

Indeed, everything in the "green" world is iterative, and ongoing conversations between the university and community are critical. Both parties must come to the table and share best practices, pragmatic solutions, and a host of substantive alternatives. At the end of the day, we believe that a sense of discovery must pervade this sustainability dialogue.

"The university, with its unique teaching and learning environment, can serve as a test bed or influencing agent for new "green" ideas..."

Carbon reduction is a good example. We're doing a good job on our campus, but we realized that one entity can't solve this problem alone, and so we opened up avenues for the community to get involved in much of what we do.

It's a very porous and productive relationship - a real partnership. On the one hand, we have the energy, enthusiasm and passion of our students, combined with a serious academic underpinning; and, on the other hand, we have the "real-world" experience and experiences of the community's developers, activists and public officials.

Transportation is another strong case study. The University of Washington's UPass program, which gives faculty, staff and students access to a complete package of low-cost transportation options - from buses and commuter train service to discounted vanpooling - is



Charles Kennedy

Associate Vice President, UW Facilities Services

Charles Kennedy, Associate Vice President of Facilities Services, joined the University of Washington in 2006. He previously led facilities organizations at the University of California and Georgia Institute of Technology, as well as local government and the private sector. In his nearly two decades of higher education experience, Kennedy has had a transformative impact on organizations, leading process improvements using TQM, Six Sigma, Balanced Scorecard and Shingo Lean principles.

helping to reduce carbon emissions from automobiles. But the program wouldn't be nearly as effective without Seattle's robust transit systems.

There's no one leader when it comes to collaborative sustainability partnerships like this.

That said, the university, with its unique teaching and learning environment, can serve as a test bed or influencing agent for new "green" ideas that will ultimately benefit the surrounding community. Our on-campus research efforts also make us



Paul Jenny

Vice Provost, UW Office of Planning & Budgeting

As Vice Provost of the Office of Planning & Budgeting, Paul Jenny is responsible for the development and management of resource allocation plans for the University of Washington and oversees the preparation of the University's operating and capital budgets. Prior to his appointment at the UW, Paul served as the Associate Vice Chancellor of Budget and Resource Planning at the University of California – Berkeley and as Associate Director, Budget and Institutional Research for the University of Alaska system.

a public laboratory that can help incubate crucial sustainability breakthroughs that will help clean the sky, land and air for future generations.

The University of Washington, for example, was selected as part of a team that is conducting a regional smart energy grid demonstration project. The \$178 million project, funded by the U.S. Department of Energy and managed by Battelle, includes a demonstration test site on our campus. The overall goal of the project is to reduce energy costs for consumers; make the

energy grid stronger and more reliable; and increase accessibility to clean-low-cost renewable energy sources for homes and businesses.

For their part, community members can help the university by supporting its overall educational mission in the realm of sustainability.

On a larger scale, community leaders can play a tremendously constructive role by taking university-tested “green” ideas and implementing them in a host of neighborhoods. Once they’ve been proven successful at the local level, these ideas can be embraced and adopted at the state, regional, national and even global levels with far greater confidence.

The UW is also committed to exploring its own neighborhood and partnering with the city and community to expand on a successful neighborhood to further shared ‘green’ interests.

Just west of the campus, the university district has long been an eclectic blend of local retailers, student housing, single family residences, and the increasing location of UW administrative and student support functions. It is also the largest Seattle urban core neighborhood that has not gone through significant redevelopment. Rather than everyone going their own way, the City of Seattle, the local community and the University of Washington joined forces to first develop a comprehensive strategic plan that focuses on ensuring that the neighborhood is economically and environmentally sustainable. Following the release of this report in early spring 2013, the University is coordinating and investing with the city in a neighborhood wide environmental impact statement to provide a framework to guide development consistent with our strategic planning goals.

Looking forward, in a perfect world, the end result of this all-important campus-community teamwork will be a cleaner and more sustainable planet for the 21st century - something we’re all hoping for and working toward each and every day.

Living the New On-Campus Sustainability Experience



Richard Chapman

Associate Vice President, UW Capital Projects

Richard K. Chapman is Associate Vice President for Capital Projects at the University of Washington. His focus is on building and maintaining performance-oriented project management organizations in diverse business locations. Chapman received his Bachelor of Science degree in electrical engineering in 1974 from the California State Polytechnic University and has over 30 years of U.S. and international experience managing all operational aspects of higher education projects.

A major part of our new on-campus sustainability initiatives focuses on green residence halls, dining facilities and classrooms – the places where our students spend most of their time on campus.

Nurturing this clean and cutting-edge environment requires major creativity and a tremendous commitment to the future. And, from our perspective, the most important thing we can do, when it comes to sustainability, is to focus on creating and sustaining delivering a healthy living and work environment for students, faculty and staff.

That means – among other things – making sure the food system respects the planet; providing the right amount of natural daylight in our buildings; saving as much energy as possible in our operations; and deploying innovative technology, products and processes in order to enhance and enrich a sustainable on-campus life for thousands of people.

“The most important thing we can do... is to focus on creating and sustaining delivering a healthy living and work environment for students, faculty and staff.”

There are a number of prerequisites that have to be in place before this green vision can become a reality, however.

First, there needs to be commitment, sponsorship and engagement from the President’s office and his senior staff; the campus community must also support sustainability and help drive sustainable initiatives.

Second, there needs to be an investment in resources, and these investments must show a return – whether it’s a reduction in landfill waste, an increase in composting or recycling, or continued increases in local food and beverage purchasing with lower costs of products. For example, several years ago we established in our urban environment the UW Farm, a student run and operated endeavor that sells produce grown right here on campus to our Housing & Food Services unit. What could be more sustainable than students growing the food their colleagues consume?

Third, there has to be collaboration from outside suppliers, distributors and contractors.

Fourth, you have to be able to show the impact of sustainable change from month to month and year to year by benchmarking and participating in rigorously analytical surveys.

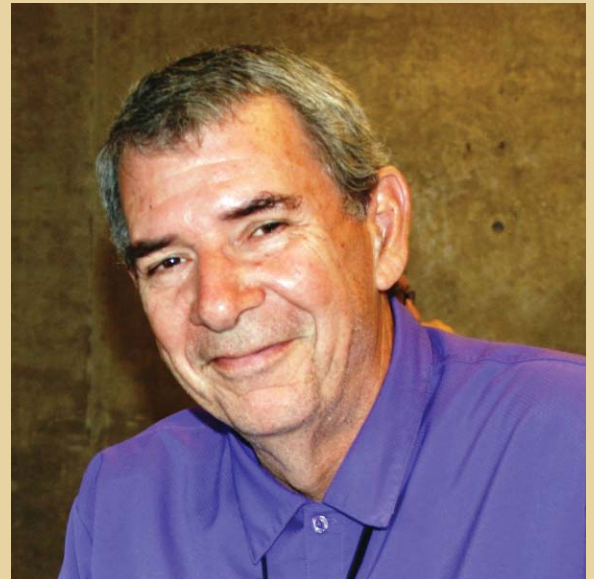
Fifth, it’s essential that students see the value of your sustainability efforts. They have to be engaged, and it

has to be easy for them to participate. So, for example, a waste recovery area on campus has to be conveniently located and clearly marked. Unfortunately, though, so much of what we do in terms of sustainability is invisible. It's hard, for instance, for a student to truly appreciate everything that goes into a LEED-quality building or a sustainable eating facility. The Student Union Building, also known as the "HUB," makes it easy to compost your food waste with well marked and placed compost bins.

"[The University] can serve as a test bed or influencing agent for new "green" ideas that will ultimately benefit the surrounding community."

Creating a green campus experience requires a really good business sense. When we construct a new or renovate an existing building, we often walk a financial tightrope. We borrow money to pay for projects of this nature, so at each stage we have to ask ourselves if there's going to be a payout. Take a new residential hall as a case in point. We can build it and gain LEED silver certification; but for \$1 million more we can obtain a gold certification. Is it worth it? Is that \$1 million better spent elsewhere on campus? These are the questions and conundrums we frequently wrestle with in the process of deepening sustainability at our university. One of our new residence halls, named Poplar Hall, is one of the most recent LEED Certified buildings that include an energy monitoring dashboard and a floor exclusively dedicated to sustainable living.

The exciting part of it all, though, is that we get to truly innovate. Our participation in a regional smart grid project funded by the Department of Energy is a good example of 21st century technology on campus. We're also piloting technologies that will advance the sustainable building code for the City of Seattle. And one of the fascinating state-of-the-art construction products that we're now using in some of our new facilities is a non-toxic, vegetable-based encapsulated gel. The gel absorbs thermal energy by melting at temperatures above 74 degrees, which helps to keep the building cooler without using energy.



Micheal Meyering

Sustainability Manager, UW Housing & Food Services

Michael Meyering is Business and Sustainability Manager, UW Dining, at the University of Washington. Selected for the 2010 Husky Green Award, Micheal has essentially built from scratch a nationally recognized campus-wide composting program that is a model for other universities. For Micheal, the concept of "zero-waste" is not an idle catch phrase but a reachable goal. Micheal has a BS in Nutritional Science & Foods plus a year of grad school in Nutrition both from the UW.

Looking ahead, one of our biggest challenges on campus is institutionalizing sustainability. We'd like students to be even more involved with our food and beverage purchasing, for example, so that they understand our local sourcing. But we're confident that this can happen, because the majority of our students think sustainably and are aware of the environmental implications if we don't work together to build a green campus on a daily basis.

What It Takes: How to Green the Ivory Towers of Higher Education



Ruth Johnston

Associate Vice Provost, UW Organizational Excellence

Dr. Ruth Johnston leads 1500 employees in developing strategy, metrics, leadership and staff, along with marketing and communication of university administrative services. She is also responsible for the UW Environmental Stewardship and Sustainability office and for the UW's Business Diversity Program. She has a B.A. in Social Sciences/Counseling Psychology, an M.A. in Human Relations, and a Ph.D. in Organization Development and Higher Education.

In this collection of articles, we've offered a variety of views on the role of higher education in global sustainability efforts.

The series was launched with a piece from Michael Young, President of the UW.

Young believes that, when it comes to sustainability, universities must turn themselves inside out – taking more of the discoveries and innovations from their scholars, researchers and students and bringing them to the broader global community.

We also featured articles on “The New Sustainability Curriculum for the 21st Century,” “The Millennials’ New Planetary

Passion,” and “Sustainability As a Business / Financial / Economic Decision.”

Now, to conclude our series, I've asked four of the most thoughtful and important players in sustainability at the University of Washington to discuss what it takes to truly green the ivory towers of higher education.

Sandra Archibald, Dean of the Evans School for Public Affairs and Chair of the UW's Environmental Stewardship Committee, has seen the growth in support for these efforts rise dramatically since she assumed the Chair position in 2004.

“I think each of us plays an important role in communicating sustainability, from classrooms and academic journals to the Web and social media.”

Archibald initially worked with students, faculty and staff who cared so deeply about the environment and sustainability that this committee was formed. As successes were realized and the Climate Action Plan was submitted in 2009, the UW as a whole took notice and the President and Provost elevated the decision-making ability of the committee. In the last four years, this work has engaged all campuses, medical centers, and intercollegiate sports. Overall, we've seen increased participation from the entire community.

“When I think about public institutions of higher education, and how they contribute to sustainability, I realize that they're curiosity places that uncover problems and discover solutions,” says Archibald. “And, even though sustainability is a very complex topic, I believe that universities approach this subject with wonderful multi-generational learning and lots of civil and constructive conversation.

Lisa Graumlich, Dean of the College of the Environment at the UW, believes that without collaboration across campus, there's no way to effectively harness sustainability talent, or generate sustainability progress, at any university.

That means engaging and linking the academy via programs; individual faculty across the disciplines; students in the classroom; the staff through the buildings/labs they work in; and academic and administrative leadership as they help form policy.

“Part of what makes the University of Washington unique, and what keeps us at the forefront of this work,” says Graumlich, “is the rich interface between the educational opportunities we provide in the classroom, our leadership in sustainability science and research, and our forward-thinking campus operations.”

“The key is that sustainability must be integrated with the core values of the institution.”

A critical offshoot of this, adds Graumlich, is an institution-wide commitment to sharing open and clear communication about sustainability issues.

“I think each of us plays an important role in communicating sustainability, from classrooms and academic journals to the Web and social media,” she says. “Our communicators – whether they’re scientists or staff – make incredible contributions, all the way from central units to individual schools and colleges.”

Active leadership is a must, though.

And, as V’Ella Warren – Senior Vice President of Facilities and Finance at the UW, and Treasurer of its Board of Regents – points out, this invaluable support must come from the President, Provost, Board of Regents and the community. If they’re not totally behind sustainability efforts, higher education simply can’t help drive a robust environmental agenda on campus or off campus.

“The key, explains Warren, “is that sustainability must be integrated with the core values of the institution. This will make it part of the university’s DNA, not just another unfunded mandate. And, once sustainability is part of the DNA, it becomes a matter of ‘how,’ and not ‘why.’ That’s how you become a major factor in higher education’s sustainability conversation.”

None of this happens overnight.

Ana Mari Cauce, Provost and Executive Vice President at the UW, understands the need and desire on the part of universities to show immediate results in the sustainability area, especially given the imperatives of addressing and arresting climate change.

But, she cautions, “it’s important to stress taking the long view of things. When you look at a short-term framework – a year or a biennium – some of these efforts may seem less than cost-effective, or maybe even self-indulgent to some people. When you view a time-frame of a decade or more, however, many of these efforts not only help save the environment, but can also save money.”

“...higher education’s depth and breadth in the field of sustainability can change the world...”

As I look both backward and forward, it’s important to recognize the pivotal role of the UW’s Environmental Stewardship & Sustainability office. The foresight of V’Ella Warren to create a central hub for communication and coordination across the academy helps faculty, staff and students truly engage with sustainability efforts and activities. And this melding of talent, passion and expertise is transforming how we work together across the UW.

Looking out over the horizon, it’s clear that higher education’s depth and breadth in the field of sustainability can change the world by making it cleaner and greener for the many generations to come. It’s up to all of us at colleges and universities to take advantage of this opportunity.

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Sustainability: it's in our nature.

