Climate Action Plan

June 2011

WSU Regional Campuses

Spokane, Vancouver, TriCities

WASHINGTON STATE UNIVERSITY

World Class. Face to Face.

greenhouse gas inventory
green development
energy conservation
transportation
carbon offsets
student faculty research

Letter from President Floyd

I am pleased to be able to present the Washington State University Climate Action Plan, the result of a collaborative planning process that has brought student, faculty, and staff representatives from across our university together in pursuit of a common goal.

In forging a more sustainable future, a major research university must play many roles. First, we as an institution must act as a good steward of our environment. A good example is a powerful educational tool. Our university has become increasingly conscious of the message we send as we move toward more sustainable practices.

This fall we opened the first new residence hall we have built on our campus in nearly four decades. The project is anticipating a LEED Silver rating. Innovative "green" strategies are incorporated in its construction and operation, including geothermal heating and cooling, natural day lighting, natural habitat and vegetation, water efficient landscaping, use of regional materials, recycled materials and certified wood where possible. The opening of this structure comes one year after the opening of our first LEED certified building, the renovated Compton Union Building that serves as the center for student life on campus.

Constructed in 2003-2004 on our Pullman campus, the Grimes Way Steam Plant replaced an existing coal-fired power plant that had been in service since 1936. Changing fuels from coal to natural gas as a primary fuel demonstrated our focus on finding cleaner and more efficient ways to power our university. Both in 1988 and 2004, WSU received the Governor's Energy Team Award for Excellence in Energy Management.

Recently, the Department of Energy announced that a group of Washington State University researchers will working with Avista on a demonstration project that hopes to make the city of Pullman the region's first smart grid community. The Pullman project is part of a Department of Energy regional smart grid demonstration project throughout the Northwest that is designed to expand upon existing electric infrastructure and test new smart grid technology. Using smart grid technologies, the Pacific Northwest Smart Grid Demonstration Project will test new combinations of devices, software and advanced analytical tools that enhance the power grid's reliability and performance.

WSU has a history of excellence in the fields of electric power systems and energy systems. Researchers in the College of Engineering and Architecture are working to

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develop and incorporate new technologies aimed at improving the efficiency and reliability of electric power and energy systems. WSU Extension faculty members develop and provide education to the public on energy and environmental issues.

Through our research in renewable energy sources, sustainable agricultural practices and the effects of global climate change, WSU is helping chart the course to a more sustainable future. Through the education and research carried out in our Institute for Sustainable Design within the College of Engineering and Architecture and our Center for Sustaining Agriculture and Natural Resources within the College of Agricultural, Human, and Natural Resource Sciences, we are encouraging environmental leadership. We have created a virtual College of Sustainability and the Environment to enhance the university's outreach by taking its research and teaching expertise to the world.

We are proud of how far we have come at WSU and are fully aware that our initiatives must continue. This climate action plan will assist us in those efforts.

Climate Action Plan Goals

Washington State University (WSU) seeks to provide an exemplary teaching, research, and outreach environment that fosters the conservation of natural resources, supports and enhances social responsibility, addresses community and economic development, and follows environmental, social, and economic practices. The Climate Action Plan (CAP) will help WSU attain **three major goals:**

Goal 1 **Support and implement WSU's strategic plan goals and mission through WSU's Sustainability Initiative - Executive Policy # 24**

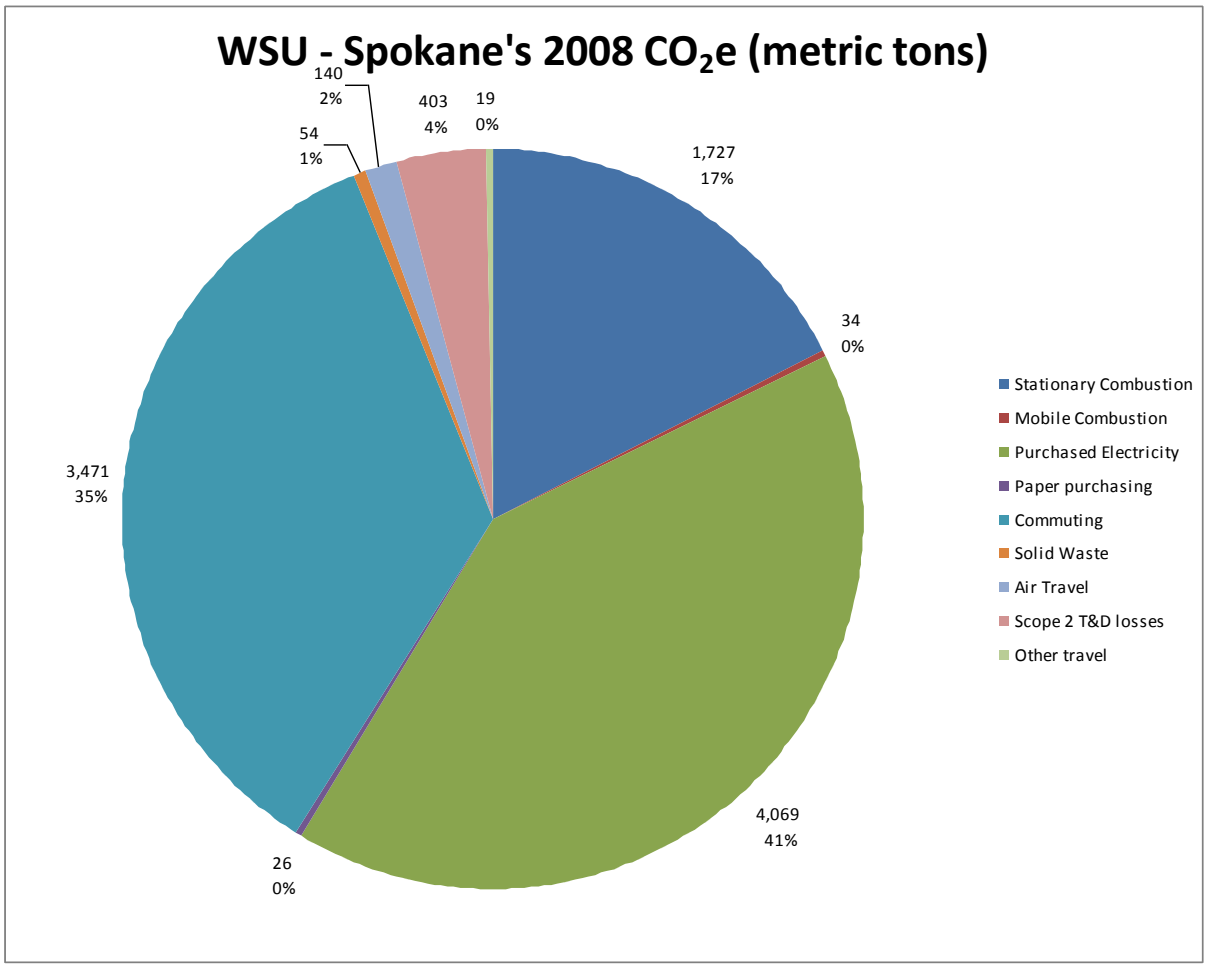
Goal 2 **Meet the American College and University Presidents' Climate Commitment (ACUPCC)**

Goal 3 **Meet Federal (EPA) and State (Ecology) greenhouse gas and climate change regulations**

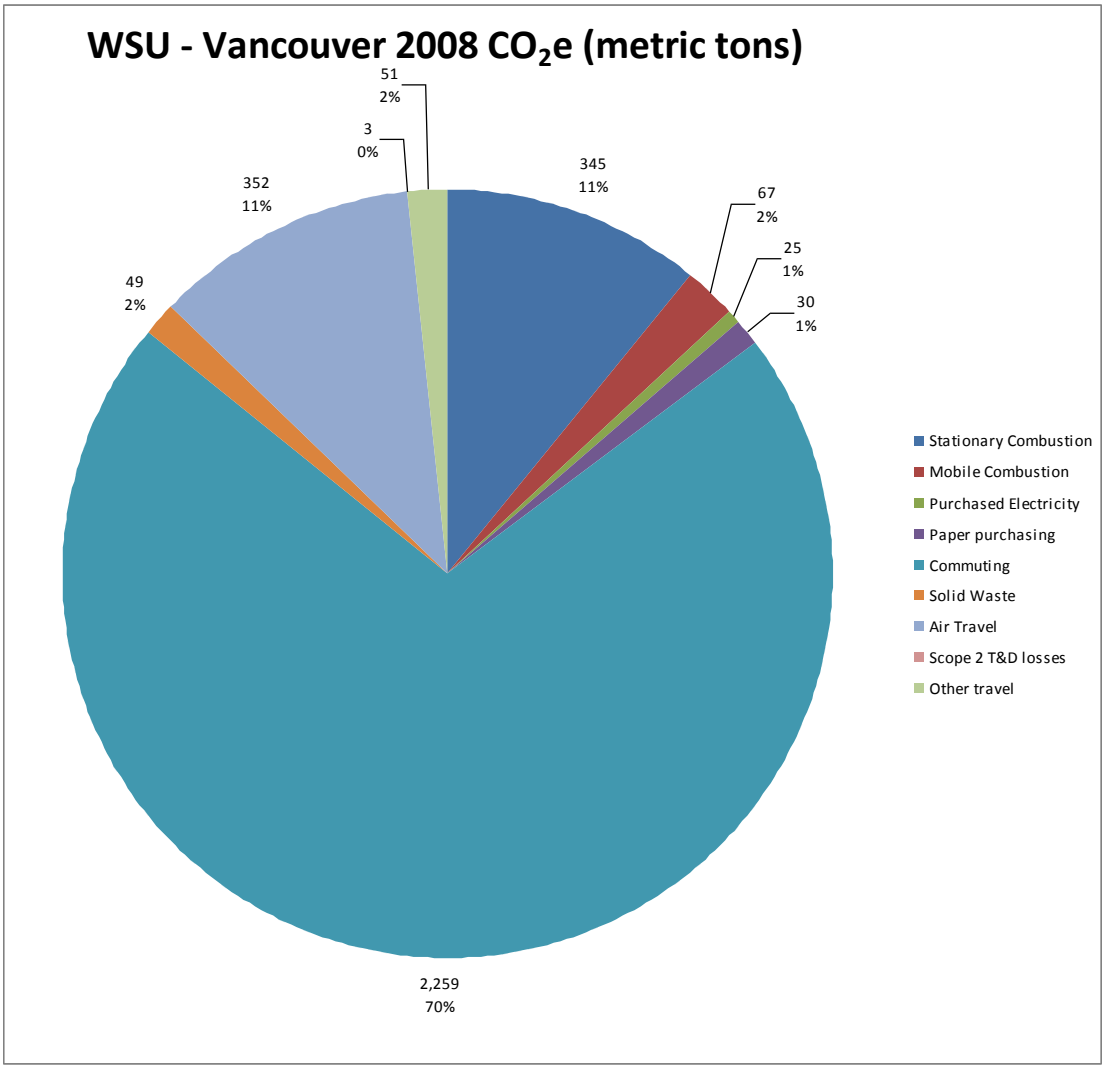
BE CRIMSON. GO GREEN.

greenhouse gas inventory

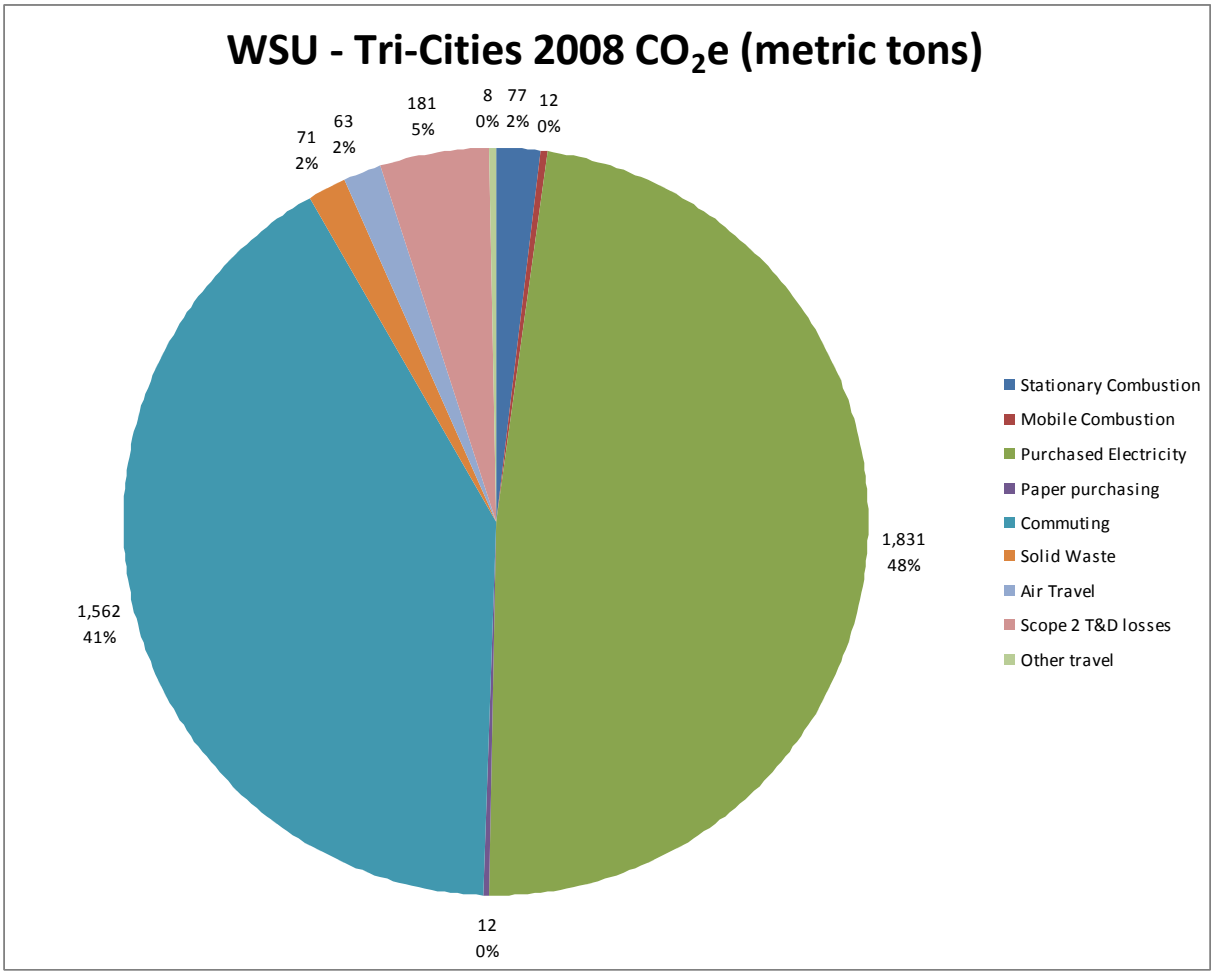
Greenhouse gasses include carbon dioxide (CO2), nitrous oxides, methane, and refrigerants. WSU's three regional campuses 2008 gas inventory totaled 16,941 equivalent metric tons of CO2, with 9,943 at Spokane, 3,181 at Vancouver, and 3,817 at TriCities.



greenhouse gas inventory



greenhouse gas inventory



Greenhouse Gas Inventories

Spokane 2008	mt eCO_2
Stationary Combustion	1,727
Mobile Combustion	34
Purchased Electricity	4,069
Paper purchasing	26
Commuting	3,471
Solid Waste	54
Air Travel	140
Scope 2 T&D losses	403
Other travel	19

Vancouver 2008	mt eCO_2
Stationary Combustion	345
Mobile Combustion	67
Purchased Electricity	25
Paper purchasing	30
Commuting	2,259
Solid Waste	49
Air Travel	352
Scope 2 T&D losses	3
Other travel	51

TriCities 2008	mt eCO_2
Stationary Combustion	77
Mobile Combustion	12
Purchased Electricity	1,831
Paper purchasing	12
Commuting	1,562
Solid Waste	71
Air Travel	63
Scope 2 T&D losses	181
Other travel	8

Greenhouse Gas Reduction Goals and Strategies

This Climate Action Plan (CAP) is a framework to guide WSU's faculty, students and staff in making short and long range decisions that will result in real, measurable reductions in greenhouse gas emissions. Progress will be tracked using a recognized greenhouse gas inventory tool. Benchmarks will include meeting the requirements passed into law by the Washington State legislature in April 2009. These benchmarks are reducing our greenhouse gas emissions by 15% of 2005 levels by 2020 and by 36% of 2005 levels by 2035.

While climate neutrality is not a requirement of the State legislation, as a signatory to the American College and University Presidents' Climate Commitment, WSU has pledged to work towards eventual net climate neutrality. Given the very long time frame covered by this CAP, the technological advances that will occur over this time frame and an uncertain budgetary future, WSU cannot, at this time, commit to a specific date to achieve net climate neutrality. We believe that innovative research occurring at WSU will accelerate achieving net climate neutrality at WSU and beyond.

To achieve our greenhouse gas reduction goals, WSU will implement four major strategies.

- **green development**
- **energy conservation**
- **transportation**
- **carbon offsets**

This CAP will be a living document. It will be continually modified to react to changing technologies, opportunities, innovations and a changing regional and world climate.

BE CRIMSON GO GREEN
WASHINGTON STATE UNIVERSITY WELLBEING

green development

Background

Each year the built environment consumes significant amounts of the nation's raw materials (40%), total energy produced (33%), and fresh water (17%). The challenge is to design intelligent, economically prudent buildings that use a minimum of nonrenewable energy, produce a minimum of pollution and wastes, and are generally environmentally benign; all the while increasing the comfort, health, and safety of the people who occupy them.

In 2005 the State of Washington legislature passed Senate Bill 5509 which stated all state funded buildings over 5,000 square feet of conditioned or occupied space, should meet at least the United States Green Building Council's Leadership in Energy and Environmental Design's Silver Standard. There are four levels of project Certification from lowest to highest are: Certified, Silver, Gold, and Platinum.

Washington State University campuses promote sustainability through innovative design and engineering principles for functionality, safety, and energy efficiency without losing respect for campus culture and heritage. A member of the U.S. Green Building council (USGBC) since 2006, WSU strives to follow the Leadership in Energy and Environmental Design (LEED) green building rating system in building projects on all campuses. The LEED rating system is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings.

The philosophy of building construction here at WSU has long been one of building sustainable facilities. Because of our nature we want our buildings to last 100 years or more. This is even more important in a time of dwindling resources and construction money.

green development

HIGH PERFORMANCE SUSTAINABLE DEVELOPMENT

Strategies

Several innovative "green" strategies are incorporated into WSU's new buildings including: radiant, and geothermal heating; centralized cooling; natural day lighting; sun shading devices to minimize heat load; site restoration with natural habitat and vegetation; water efficient landscaping; rain garden systems; stormwater collection and reuse for irrigation; high reflective roof systems to reduce heat island effect; reduction of light pollution; environmental educational signage systems; water-use reduction in buildings; construction waste management; and use of regional materials, recycled materials, and certified wood where possible.

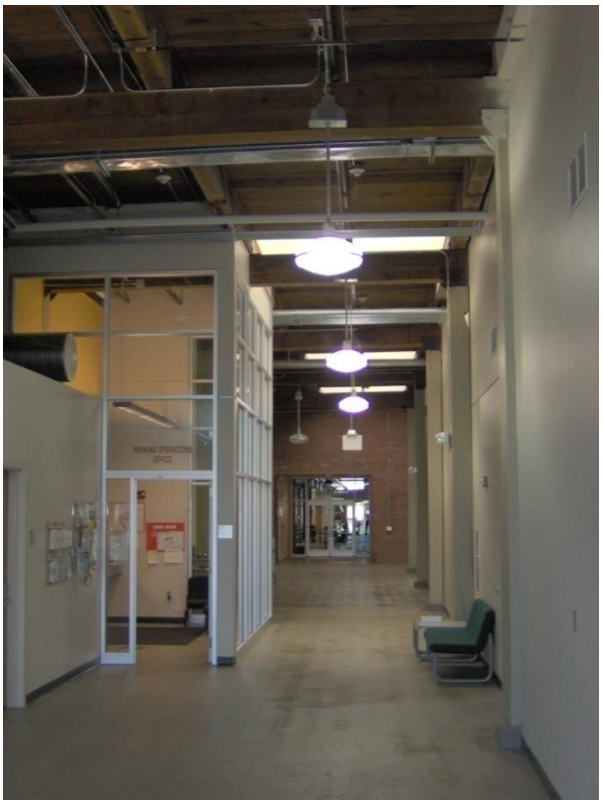
SPOKANE CAMPUS

Past

Seven and one-half acres of land were purchased in 1988 to establish the Riverpoint campus in Spokane in Eastern Washington. Since then the Riverpoint campus has grown to more than 48 acres. This site is just east of downtown Spokane. A majority of this site was used as a rail yard, freight terminals, switching tracks, and engine repair roundhouse. Other former land uses on or near the Riverpoint campus included a crematory, an asphalt plant, and a brewery. This was an industrial brownfield site that has been transformed into a beautiful college campus. Environmental cleanup activities were completed in 1991.

SOUTH CAMPUS FACILITY

The South Campus Facility is a single-story, high bay, brick masonry & heavy timber structure. It was originally used as a railroad distribution warehouse facility. The primary focus of this adaptive-reuse project was to address building safety and preservation issues. This included seismic upgrades, structural repairs, new electrical service/system, fire alarm/sprinkler upgrades, new toilet facilities, accessibility improvements, code compliant exit ways, HVAC system upgrades, new roofing system, repairs to roof parapets & masonry walls, and energy improvements. Offices, design studios, classrooms, research & support spaces have been created in the existing space to help meet the needs of growing WSU academic units in Spokane. WSU's student owned bookstore is also located in this facility. Approximately half of the 63,725 gross square foot facility was renovated during this project.



green development

Present

NURSING BUILDING

The location for the 87,500 square foot Nursing facility is south of the existing Health Sciences Building and adjacent to the west entrance into Spokane's Riverpoint campus. The Nursing building includes cutting-edge teaching and research facilities. The new facility will allow the College of Nursing to increase the number of undergraduate and graduate students. Locating Nursing adjacent to the existing Health Sciences Building and close to major regional hospital/medical complexes will help facilitate collaboration with other health science professionals. This building was completed in time for classes in the Fall of 2009.

VETERINARY CLINIC

The Veterinary Clinic is a remodel of an existing building that was previously used by BPS Plumbing Supply. The building was gutted to the structure. The interior is all new and new roofing and siding were installed on the exterior. The total square foot of the first floor is approximately 7,000 gross square feet. The half basement was not developed.

Future

BIOMEDICAL AND HEALTH SCIENCES BUILDING

The Riverpoint Biomedical and Health Sciences Building – Phase 1, is a project to advance health-sciences based research and education program growth on the Riverpoint Campus in Spokane, Washington. The campus is evolving as a health-sciences education and research center. The Phase 1 building will facilitate and significantly expand the existing WSU, University of Washington (UW), and Eastern Washington University (EWU) health-sciences collaboration with programs and services provided by the Spokane health care sector including regional hospitals, clinics, and research institutes. Given the current and projected health-sciences program growth within the region, this building will provide state-of-the-art biomedical research and health-sciences education facilities.

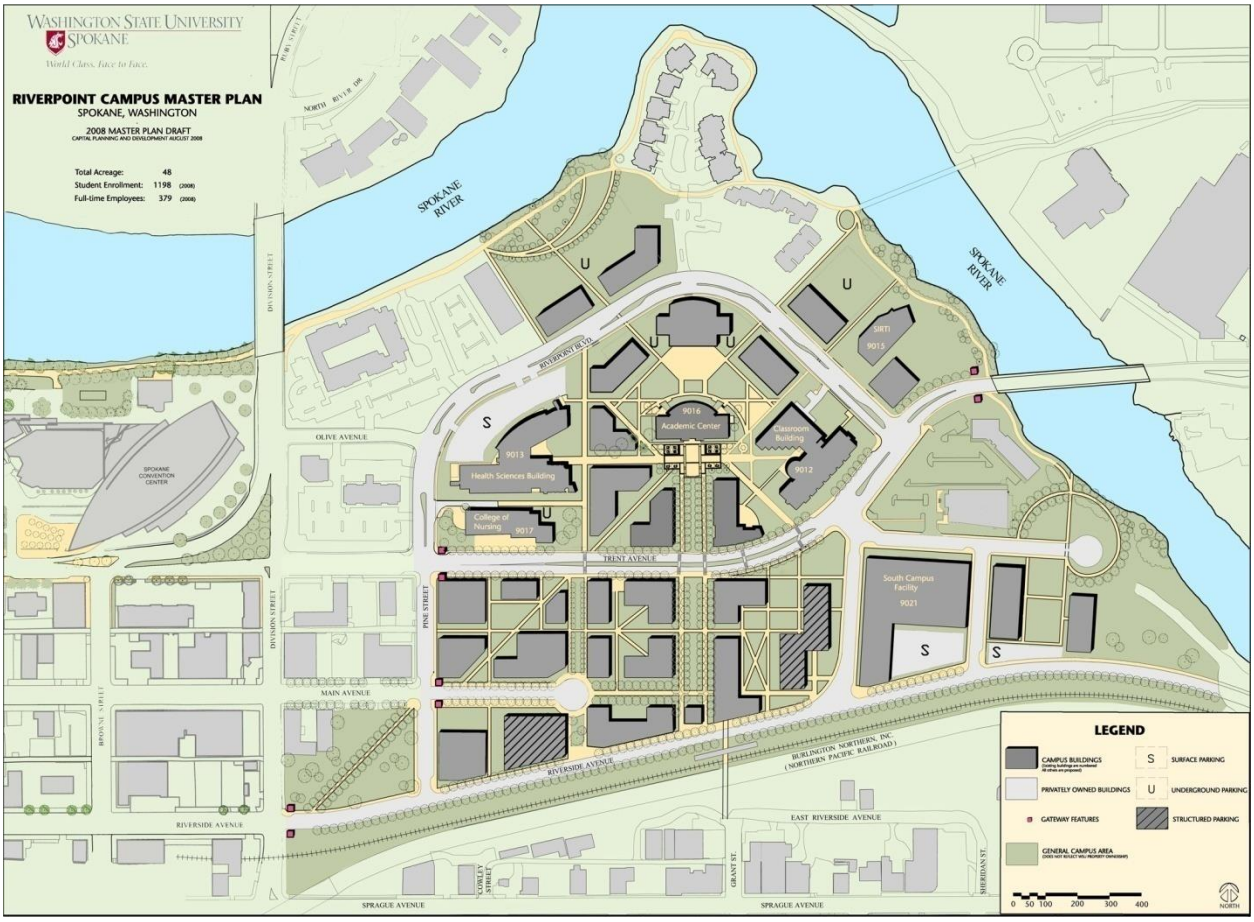
A programmatic and physical master planning process for the Riverpoint Campus, which concluded in June 2009, identified significant space needs to accommodate the growth and development of health-sciences research and education programs. High priority needs include research, teaching, and administrative spaces to support pharmaceutical sciences, medical education, and allied health programs. The Phase 1 building is anticipated to be approximately 120,000 gross square feet in size and include basic and clinical research laboratory space; core research and teaching facilities including a vivarium and gross anatomy laboratory; allied health programs; space for the growth of pharmaceutical sciences; and administrative support spaces including offices, conference rooms and medical education classrooms. Future phases of the building are anticipated over the next several years. The location of the facility will be immediately east of the recently completed Nursing Building and north of Spokane Falls Boulevard.

As we plan for the future, WSU will continue to provide innovative, sustainable design and construction principles that improve safety, functionality and energy efficiency that mirrors our respect for campus culture and heritage.

green development

Spokane Statistics (2010-2011)

- **Washington State University Student Enrollment: 1,211**
- **Eastern Washington University Student Enrollment: 2,300**
- **Total Building Square Footage: 564,027**
- **Total Spokane Campus Acreage: 48**



green development

VANCOUVER CAMPUS

Past

Construction began in August 1994 on the first three academic buildings on the WSU Vancouver campus located in southwest Washington. View corridors to Mt. St. Helens, in Washington, and Mt Hood, in Oregon, were established early in the master planning process. The WSU Vancouver campus is built for the pedestrian. Motorized vehicles are regulated to the perimeter road and parking lots ringing the campus.

Present

UNDERGRADUATE CLASSROOM BUILDING

The new Undergraduate Classroom Building, on the WSU Vancouver Campus, was a project prioritized by the 2005 Legislature to support WSU Vancouver's transition to a four year university. The 58,000 square foot new facility provides classrooms of various sizes, seminar rooms, computer lab spaces, informal student study spaces, faculty offices, and associated support spaces. The major programs located in the building are the Education Department and the New General Education Academy. The Undergraduate Classroom Building was completed in time for Fall 2009 classes, and was awarded LEED Gold Certification in 2010.

Future

APPLIED TECHNOLOGY CLASSROOM BUILDING

The 56,000 square foot facility on the Mt. St. Helens Corridor will provide specialized laboratories and classrooms for research and teaching in Computer Sciences and Electrical Engineering. This building recently funded by the Washington State Senate is the highest capital priority for the entire WSU System. This building is anticipating LEED Silver Certification. Construction is currently underway and project completion is anticipated in Fall 2011.

IRRIGATION SYSTEM

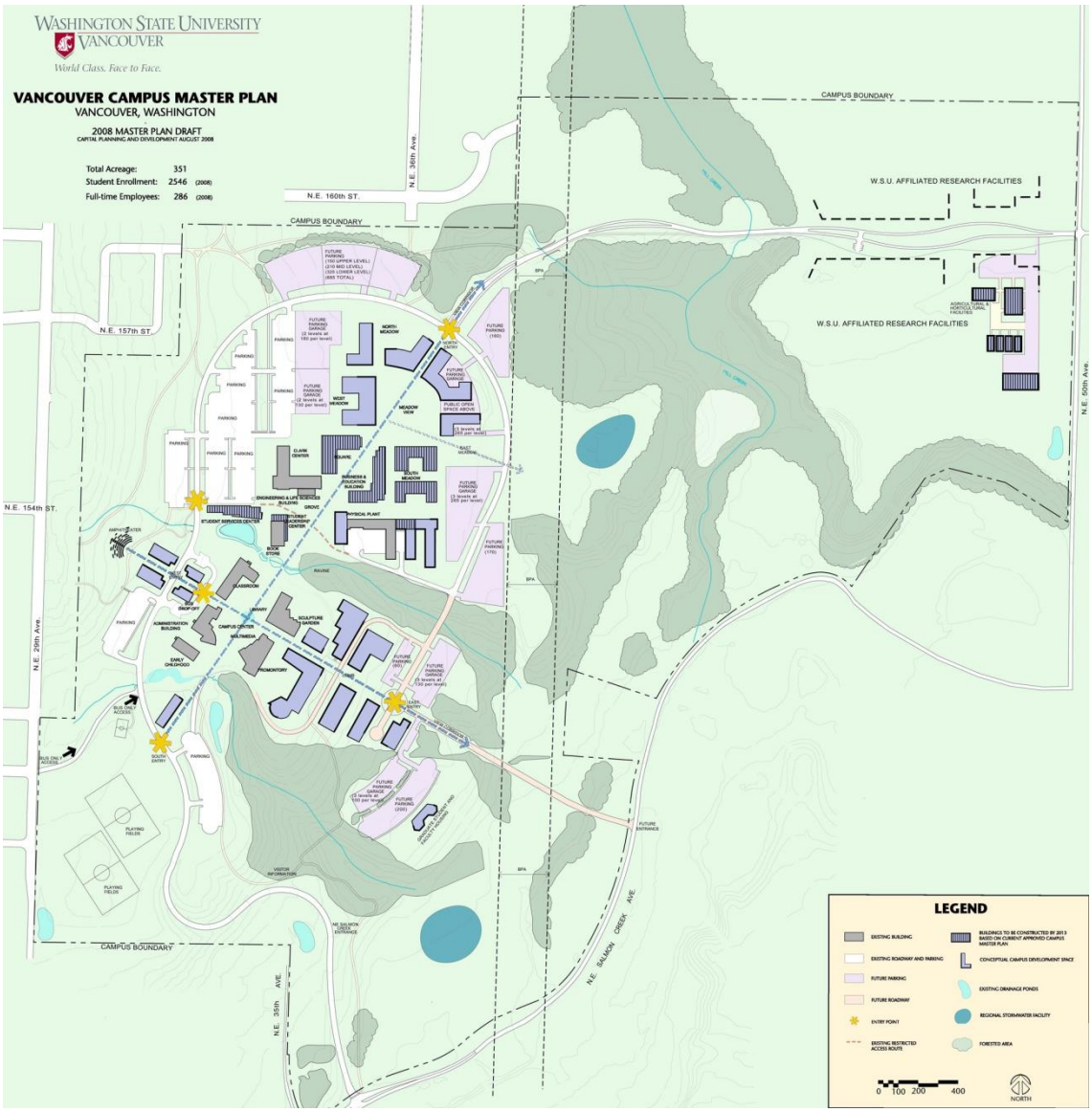
Construction of a new irrigation well at the south end of the upper campus, and a second well where water is believed to exist, is scheduled to commence in the summer of 2010. This project will result in a total of three irrigation wells and involve the installation of pump houses for all wells to meet the future irrigation water needs of the Vancouver campus. This system will be incorporated into WSUV's extensive centralized irrigation controls system.

As we plan for the future, WSU will continue to provide innovative, sustainable design and construction principles that improve safety, functionality and energy efficiency, that mirror our respect for campus culture and heritage.

green development

Vancouver Statistics (2010-2011)

- **Student Enrollment: 3,099**
- **Total Building Square Footage: 400,878**
- **Total Vancouver Campus Acreage: 351**



green development

TRI-CITIES CAMPUS

Past

Located in South-central Washington, and north of Richland, Pasco, and Kennewick, the WSU Tri-Cities campus is sited on over 200 acres on the west bank of the Columbia River. The first building at this campus was constructed in 1969. Known as the East Building it housed the Center for Graduate Study, a consortium made up of the University of Washington, WSU, and Oregon State University.

Present

BIOPRODUCTS, SCIENCES AND ENGINEERING LABORATORY

The Bioproducts, Sciences and Engineering Laboratory (BSEL) is a collaborative venture between WSU and Pacific Northwest National Laboratory (PNNL) at the Tri-Cities campus. The 57,000 square foot facility houses research and teaching laboratories, classrooms, faculty and staff offices for both WSU and PNNL programs, promoting science and engineering education and developing bioproducts technology. While not required to obtain LEED Certification this building was designed to meet that standard. Typical sustainable features includes parking reductions, highly reflective roof surfaces, water efficient landscaping, water use reduction with the use of low flow toilets and lavatories, polished concrete floors, recycled bathroom stalls, and low VOC emitting paints and adhesives.

Future

As we plan for the future, WSU will continue to provide innovative, sustainable design and construction principles that improve safety, functionality and energy efficiency that mirrors our respect for campus culture and heritage.

green development

Tri-Cities Statistics (2010-2011)

- **Student Enrollment: 1,536**
- **Total Building Square Footage: 287,802**
- **Total TriCities~~Pullman~~ Campus Acreage: 202**

energy conservation

Energy Conservation

WSU has a long history of pursuing energy and resource conservation opportunities which have reduced greenhouse gas emissions.

WSU Spokane

Past

Spokane has built a robust energy management system that controls heating and cooling in campus buildings, enabling the campus to schedule energy use specific to occupancy loads and environmental conditions.

Occupancy sensors have been installed in campus buildings that regulate lighting in classrooms and offices.

Present

Installation of a computerized irrigation software program that will manage the entire campus irrigation system is underway. This system will provide better control of water resources. Linking this system to a local weather station that will signal campus controllers to eliminate watering when it rains is being researched.

A pilot project to install solar powered lighting in the bus stops on campus will be initiated in January 2010. The campus is partnering with Spokane Transit Authority and Avista. The project will be evaluated for application to other city bus stops.

Future

Consideration is being given towards using the current energy performance contract at the university to re-fit the SIRTI Building with energy updates that will reduce energy consumption. This would include changing T-12 fluorescent lighting with T-8 fluorescent lighting, heat recovery processes, adding a second smaller high efficiency boiler, and HVAC control optimization.

Long term planning includes creating utilidors on campus that may initially provide redundancy for heating and cooling systems and ultimately lead to the construction of a central heating and cooling plant. The newly updated campus master plan has identified efficiencies for this measure.

energy conservation

WSU Vancouver

Past

Central Coolant Plant Upgrades

Vancouver has updated older air handling unit drives to newer high efficiency variable frequency drives for both supply and return air in the Classroom, Administration and Library Buildings. Additionally, the Facilities and Capital Planning departments have incorporated these specifications to ensure the same level of energy efficiency with other campus buildings.

A 2005 Capital infrastructure upgrade added one 750 ton chiller equipped with a variable frequency drive to the existing campus plant, consisting of three 350 ton chillers without VFD technology. It was anticipated that the new unit would handle campus loads and turn down ratios and allow for the reduction in use of the existing equipment.

Present

Vancouver is currently utilizing HVAC controls to use energy in buildings at the minimum need level based on building occupancy schedules.

The new 750 ton chiller is unable to handle turn down ratios and operate independently to meet campus needs currently. Another infrastructure upgrade is currently scheduled which involves a new 750 ton chiller that is anticipated to meet campus load needs, and provide the ability to not operate smaller 350 ton chillers ongoing with Undergraduate Building and new Applied Technology Center loads upcoming in 2011.

Existing CRT computer monitors are being transitioned to flat screen or LCD monitors as able to.

Coordination with Clark Public Utilities currently underway for chiller “soft-start” options for central plant needs thru 2011.

Future

As the Vancouver campus expands to incorporate eight new buildings by 2023, supplemental design standards, unique to regional campus requirements, will be incorporated by the Capital Planning and Development office.

Planning is in place to enhance the “soft start” options and add a variable frequency drive on an older chiller unit within the campus Central Plant.

Vancouver is moving toward the development of a preferred list for high energy drawing equipment.

An electrical upgrade to the campus is planned in conjunction with the ATC Building construction activities in 2010 in which a 1000 kW emergency generator will be added to the existing emergency generator and power distribution system.

energy conservation

WSU Tri-Cities

Past

Air handling system motors in the oldest portion of campus have been replaced with new, more efficient models and implemented an energy management system to control temperature in academic and research buildings campus-wide, enabling the campus to schedule energy use specific to occupancy loads and environmental conditions.

Occupancy sensors have been installed in the BSEL Building to regulate lighting in classrooms and offices.

Present

The Consolidated Information Center Building is undergoing re-roofing, insulation, and boiler renovation which will result in improved ability to control building temperatures and reduced consumption of natural gas for heating. Roofing and insulation failures have resulted in numerous incidents of increased HVAC demand to dry out carpeting and wallboard materials. The originally installed boilers have begun to fail due to age and scarcity of available replacement parts. New energy efficient boilers are scheduled for installation in 2010.

Future

Tri-Cities will use the energy performance contract at the university to evaluate the East and West buildings for re-fit feasibility with updates in HVAC and lighting systems that could reduce energy consumption. This would include changing T-12 fluorescent lighting with T-8 fluorescent lighting, and replacement of older boilers, chillers, and fan motors as well as installation of variable frequency drives.

transportation

Transportation

Commute Trip Reduction

The Commute Trip Reduction (CTR) Law seeks to identify and establish commute alternatives that could reduce employee single-occupant vehicle use. Reducing single occupant vehicle use in turn will:

- Improve air quality
- Reduce traffic congestion
- Reduce the consumption of petroleum fuel

The law was adopted by the state legislature and incorporated into the Washington Clean Air Act in 1991 as RCW 70.94.521-551. Major employers in all Washington counties with populations of over 150,000 are required to establish and implement CTR programs. (RCW 70.94.527)

The WSU Tri-Cities, and WSU Vancouver campuses are not required to establish CTR programs. However, University administrators at WSU Tri-Cities, and WSU Vancouver have decided to voluntarily participate in CTR goals. Follow this link for more information on the Commute Trip Reduction policy.

Ride Sharing

RideshareOnline.com This site offers a ride matching service for the entire state of Washington.

CarpoolWorld.com

Another source of ride share information can be found at the web site of CarpoolWorld.com. This site offers a ride matching service for the entire planet. There are often people looking to share the expense of a commute to school or work or even to Seattle for the weekend, and beyond. Carpoolworld.com is free for all personal use.

transportation

Telecommuting

http://www.wsu.edu/~forms/HTML/BPPM/60_Personnel/60.34_Telework_Agreements.htm

WSU Spokane

Present

The Spokane Campus is actively involved in the Spokane County Commute Trip reduction plan that seeks to reduce single occupancy vehicle commutes to campus. It also seeks to promote alternative modes of commute to campus such as carpooling, bus ridership, bicycling and walking.

The Spokane campus Parking and Transportation Office provides cash incentives toward future parking permits when individuals use alternate modes of transportation to travel to work.

WSU Spokane received a grant from Washington State Department of Transportation over the last biennium to install additional indoor and outdoor bike racks to campus.

The WSU Spokane campus coordinates a CTR program with Spokane County.

The WSU Spokane CTR program includes the following elements:

- Reduction in parking fees through daily participation
- Guaranteed ride home
- Spokane Transportation Authority (STA) vanpool program
- Carpool partners program

Parking Operations and Transportation Services at WSU Spokane works with Eastern Washington University, the Spokane Intercollegiate Research and Technology Institute (SIRTI,) and Spokane County to coordinate the Spokane County CTR Program as it applies to the WSU Spokane Riverpoint campus. **Volunteer employees** of WSU Spokane, Eastern Washington University (EWU), and SIRTI serve as the EWU/WSU Riverpoint Commute Trip Reduction (CTR) Committee. The EWU/WSU Riverpoint Commute Trip Reduction (CTR) Committee works to promote transportation alternatives through web pages, written materials, promotional drawings, promotional recycling services, annual craft fairs, and annual gatherings.

WSU Spokane campus Transportation Alternatives website:

http://www.spokane.wsu.edu/aboutWSUSpokane/Visiting/Parking/Alternatives.html

transportation

WSU Vancouver

Present

The campus Parking Services website has links to the City of Vancouver's Commute Trip Reduction website, and other alternative commute resources, including carpool matching.
http://www.vancouver.wsu.edu/adm/fo/psafety/parking.htm

Future

It is Vancouver's plan that all motor vehicle pool assets purchased in 2009 and beyond be considered for hybrid technology, electricity or other alternate fueling methods.

Consideration is being given to a campus rideshare/commuter survey to determine how students, faculty and staff commute to the Vancouver campus. Possible outcomes of this survey may include the implementation of incentives for people exercising carpool options and/or using hybrid technology or electric vehicles. Additionally, the campus intends on researching the benefits of installing electric vehicle charging stations to further promote the use of alternate fuel vehicles.

Vancouver will continue to explore alternative work schedules and technology solutions that may allow employees to work from home via personal computers.

Vancouver is considering the development of campus online, or web-based computing options to reduce or eliminate transportation emissions by allowing employees to work from home via personal computers. A series of offsite transportation improvements with Clark County are being considered to improve public roads leading to the Vancouver campus.

WSU Tri-Cities

Present

Tri-Cities promotes use of public transit and van pools through placement of Ben Franklin Transit (BFT) flyers, publication of BFT information in the Student Handbook, and links to BFT in the on-line version of the Student Handbook and main campus web site. BFT offers reduced rate monthly passes and special quarterly passes to our students.

The campus has replaced 25 percent of its motor pool fleet with hybrid sedans. These sedans achieve fuel mileage greater than 175% of previous vehicles.

transportation

Future

Tri-Cities plans to replace its motor pool fleet with hybrid or other high fuel mileage models as existing fleet vehicles reach the end of their service life.

Car and van pool participation will be promoted to reduce commute trips for employees, and BFT representatives will be included in future campus orientation and welcome sessions to raise awareness of public transit options for students.

carbon offsets

After implementation of the green development, energy conservation and transportation strategies to reduce direct greenhouse gas emissions WSU may still not be able to achieve its climate goals. To reach regulatory mandated goals and, ultimately, the goal of net climate neutrality the use of carbon offsets may be required.

A carbon offset is a way to mitigate direct emissions from a facility that cannot be eliminated. Offsets are typically achieved through financial support of off-site projects that reduce the emission of greenhouse gases. Offsets may be a less expensive way of reducing one's own greenhouse gas emissions.

Examples of typical carbon offsets that WSU may consider if necessary include:

- Renewable energy projects
- (e.g. wind farms on WSU properties or photovoltaic)
- Energy efficiency projects
- Destruction of industrial pollutants (e.g. CFC capture and destruction)
- Destruction of landfill methane
- Land use changes (e.g. reforestation or afforestation)
- Purchase of carbon offsets from recognized climate exchanges

If WSU purchases carbon offsets, they will be:

- Real and measurable
- Additional (emission reductions that would not have occurred otherwise)
- Permanent
- Verifiable

WSU Spokane

Past

Information Technology purchased Verdiem Software to monitor, measure and manage the electrical use of campus computers. The software places computers in a lower state of energy use during down times potentially saving 30% of energy use.

Present

Facilities Operations, and the Associated Student Body for WSU Spokane work together to successfully manage the campus recycling program. Two years ago, twenty five percent of an employee job description was changed to focus on recycling activity. Cardboard, plastic bottles and aluminum are collected and removed from the waste stream. Mixed paper is collected by Waste Management under the administration of the City of

carbon offsets

Spokane. ASWSU provides $1,000.00 per year to enhance the recycling program on campus.

The grounds maintenance staff collect grass and shrub trimmings that are transported to the Waste Management compost transfer station.

Future

Recycling receptacles will be purchased and placed on campus grounds to collect plastic and aluminum. ASWSU is designing an educational chart that will be installed above each recycling station on campus detailing accepted recycle materials.

WSU Vancouver

Present

The Facilities and Capital Planning departments are reviewing campus infrastructure enhancements for interior campus access to remote areas of campus, e.g., barn storage, to reduce use of off-campus roadways using vehicles powered by gasoline.

Future

An on campus composting facility is being planned to reuse grounds maintenance trimmings and generate natural landscape materials for recreational pedestrian pathways.

A campus recycling center has been proposed to allow for the direct carbon offsets from reduced/eliminated material pick up requirements resulting from the enhanced separation of mixed recyclable materials, cardboard, glass, etc.

Vancouver will be researching alternative energy options, e.g., solar, wind, other, to offset purchased electricity to power the campus infrastructure and meet future energy demands. Additionally, the campus plans to evaluate the feasibility of initiating a series of "green" policies and procedures for the procurement of equipment and supplies such as paper, travel and/or services.

WSU Tri-Cities

Present

Tri-Cities' student-led recycling program manages beverage containers and other plastics. Cardboard recycling is provided by a local commercial operator. Recycled materials represent an approximate 20 percent reduction in solid waste volume.

carbon offsets

Future

Mixed-stream recycling is being explored for its potential to divert up to 70 percent of current solid waste for recovery and re-use. The City of Richland is exploring cooperative efforts with Tri-Cities to implement mixed-stream recycling community-wide. Mixed stream materials from Spokane and Pullman are hauled through the area on their way to Portland for processing, thus making transport of the relatively small initial volumes generated by the proposed test program economically viable and energy efficient.

Websites

http://sustainability.wsu.edu/

http://www.cereo.wsu.edu/

http://www.css.wsu.edu/sustainability/

WSU Spokane

Past

Facilities Operations and the Associated Student Body have worked together to dedicate part of a position to recycling activity on campus and create a matching fund of $1,000.00 per year from each group to fund recycling initiatives.

Present

Students from the Interdisciplinary Design Institute provide input on sustainability in architecture, lighting, and interior design to campus building, design and master plan studies.

Future

The Associated Student Body is designing an educational poster to increase awareness of recycling and proper processing techniques for recyclable materials. Funding will be provided by students to purchase outdoor recycling stations for campus grounds.

WSU Vancouver

Past

Students have successfully implemented a solar energy project involving the incorporation of a pair of solar panels into the roof of the Engineering and Life Science Building. Power from this project has been used to provide electricity to illuminate the interior of the ELS Building.

Present

In coordination with Facilities, the Associated Students WSUV, has created a campus "Sustainable Taskforce" and is conducting "waste audits" to determine the level of awareness and implementation of campus recycling efforts. It is anticipated that this activity will continue as the new campus recycling center is developed. The task force has also worked with Facilities toward the development of an on campus composting facility to allow the campus to reuse materials to maintain and/or improve the landscaping.

Future

The Vancouver Facilities and Information Technology departments are working with the Associated Students WSUV to plan a future energy reduction campaign consisting of training and communications to have PC, lights and appliance turned off when not in use.

A project is underway to harness hydro-electric power from stormwater flowing into a campus creek to generate electricity to enhance pedestrian path lighting.

WSU Tri-Cities

Past

Students implemented a recycling program for beverage containers and other plastics in the East and West buildings. Their effort replaced the previous commercial service which proved to be un-workable for campus due to equipment and operational considerations.

Present

The Sustainability Club provides information and education to help students, faculty, and staff act in ways that build upon the Sustainability of the environment, ecosystem, and humanity in general. This is accomplished through volunteer activities and knowledgeable-based functions that strengthen Sustainability.

Future

The Sustainability Club will capitalize on advancing and managing recycling at WSU Tri-cities, creating a web-based network of information for appropriate transportation choices (such as, public transportation, carpooling, and human-powered transportation, i.e. walking, bicycling, skate-boarding, long-boarding, rollerblading, scootering, etc.) for students, faculty, and administration at WSU tri-cities, and ways to conserve energy and resources in the Tri-Cities community, in the attempt to be as economically efficient and environmentally Sustainable.

Financing and Tracking Progress

Financing

Funding the strategies that will allow WSU to meet its greenhouse gas reduction goals will be a significant challenge. Current funding sources such as the energy service performance contracting program will continue to be utilized. In addition, WSU will explore the viability of new funding sources to meet the CAP goals such as:

- Pursue short-term and long-term funding from the legislature
- ~~Develop a CAP revolving loan fund~~
- Enhanced ~~our~~ Utility Rebate program
- ~~Establish a Faculty/Staff green fee~~
- ~~Establish a~~A Student supported green ~~fee~~fund

Tracking Progress

To ensure that efforts to advance the CAP goals are effective and efficient, WSU is developing a centralized project tracking system. For each project this system will track:

- Project name
- CAP strategy the project supports
- Responsible person(s)
- Project budget
- Expected Emission Reductions
- Actual Emission Reductions

This tracking system will also be used in generating reports such as the required ACUPCC biennial reports.

The Climate Action Plan has been developed by the Sustainability and Environment Committee.

Production of this plan reflects Washington State University's commitment to sustainability and the environment. The plan can be viewed on the Campus Sustainability web site at

http://sustainability.wsu.edu/

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