

Western

Imagine Western: The Future of Our Campus

Western Leaders' Forum
January 19, 2012

The University of Western Ontario



Imagine Western: The Future of Our Campus

Agenda

Welcome

Campus Master Plan 101

Dialogue

Sustainability at Western

Dialogue

Reflections and Next Steps

Campus Master Plan 101

Mike McLean, Architect, LEED AP

Manager, Planning, Design and Project
Administration, Facilities Management

The Campus Master Plan

What is it?

A Campus Master Plan is a vision for the future development that ensures that the physical environment, both built and natural, serves the needs of the University community, enables the institution to realize its goals, and provides an effective place to work and study.

Visions from the Past...

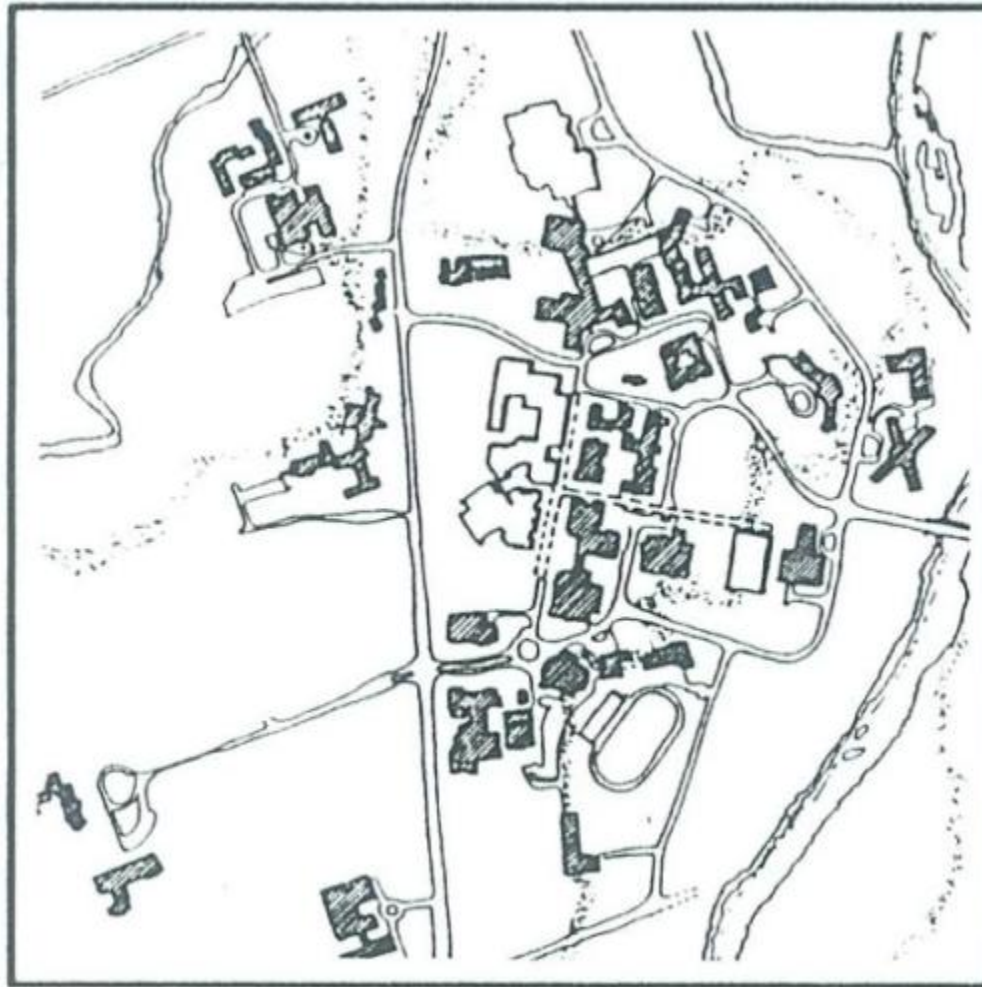


Figure 5: 1968 Master Plan

The Campus of the 1930's



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A Vision for the Future...



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...the Reality of the 1980's



Aerial View 1985

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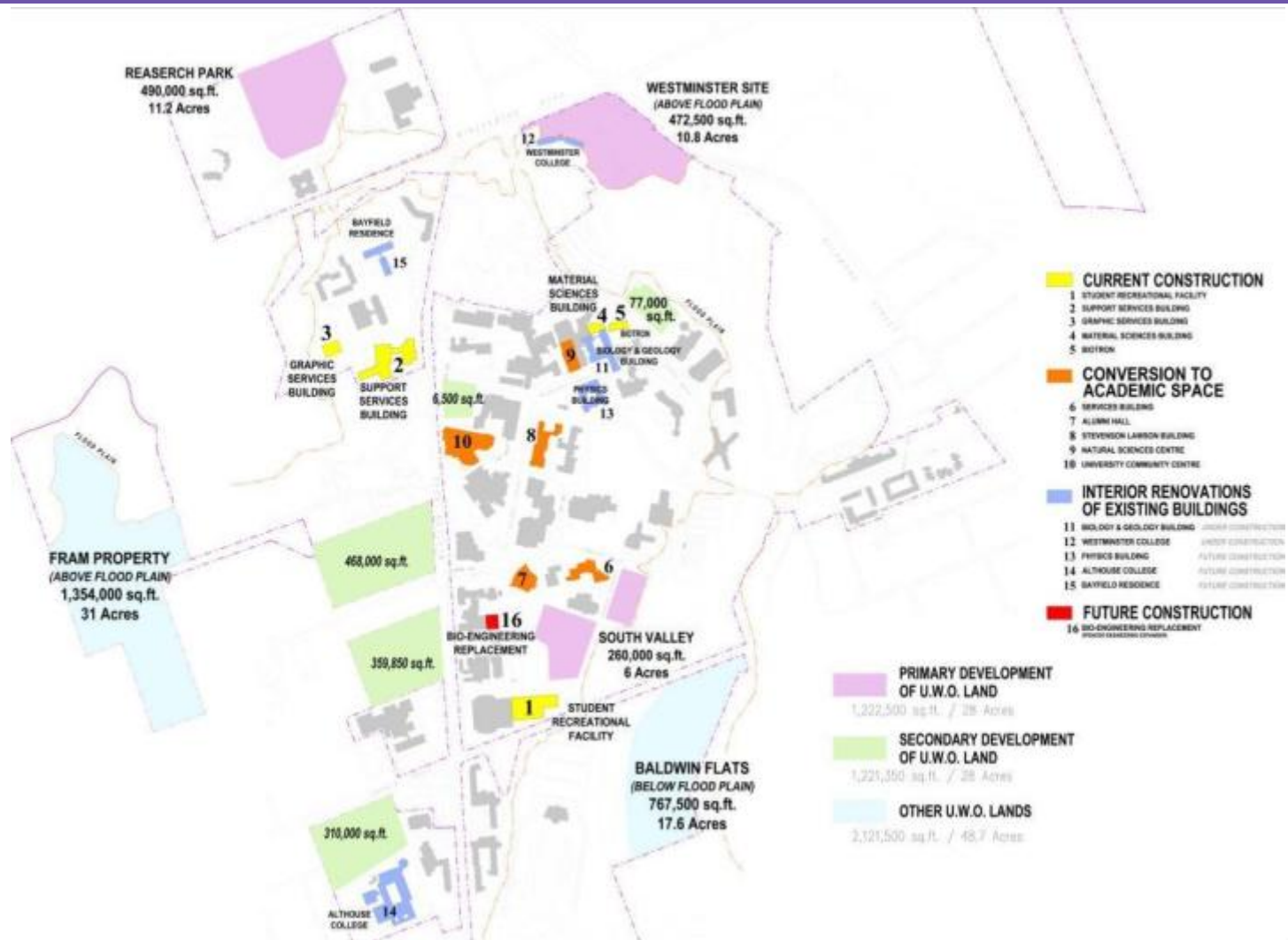
The 2007 Campus Master Plan



Aerial View 2007

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The 2007 Campus Master Plan



2007 Master Planning Principles

- Respond to changes in academic mission and technology innovations
- Preserve existing natural features and maintain & enhance landscaped open spaces
- Provide direction for University growth and change (sustainability)
- Preserve and enhance architectural integrity
- *Preserve academic interaction while decompressing the campus (**supporting interdisciplinarity and creating communal space**)*
- Enhance University/City relationships

2007 Space Planning Principles

- Future growth – flat undergraduate, increasing graduate student population and research space
- Central space to support and enhance the student experience
- *Assess space needs to target programs/areas with the greatest need (**support interdisciplinarity**)*
- *Enhance interaction and collaboration among students, faculty and staff (**create communal space**)*

Interdisciplinarity and Common Space

Recommendations for Provision of Common Space - 2007

- Common space should be incorporated into new academic buildings and into significantly renovated academic space

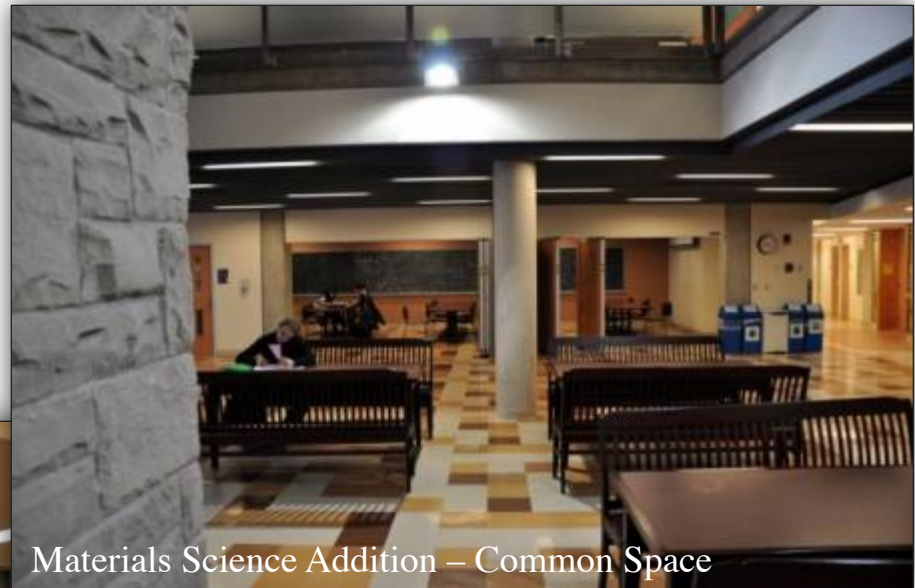
Recommendations for Future Classrooms – 2009

- Classrooms appropriate for undergraduates and graduate students should be created in the centre of campus

Academics at the Core



Materials Science Addition - Classroom



Materials Science Addition – Common Space

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Academics at the Core



UCC Classrooms (former pool)



UCC Common Space (former Gym)



UCC Common Space (former Gym)

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Academics at the Core



Stevenson Hall



Stevenson Hall



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Academics at the Core



Lawson Hall



Lawson Hall

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Academics at the Core



Davenport Theatre

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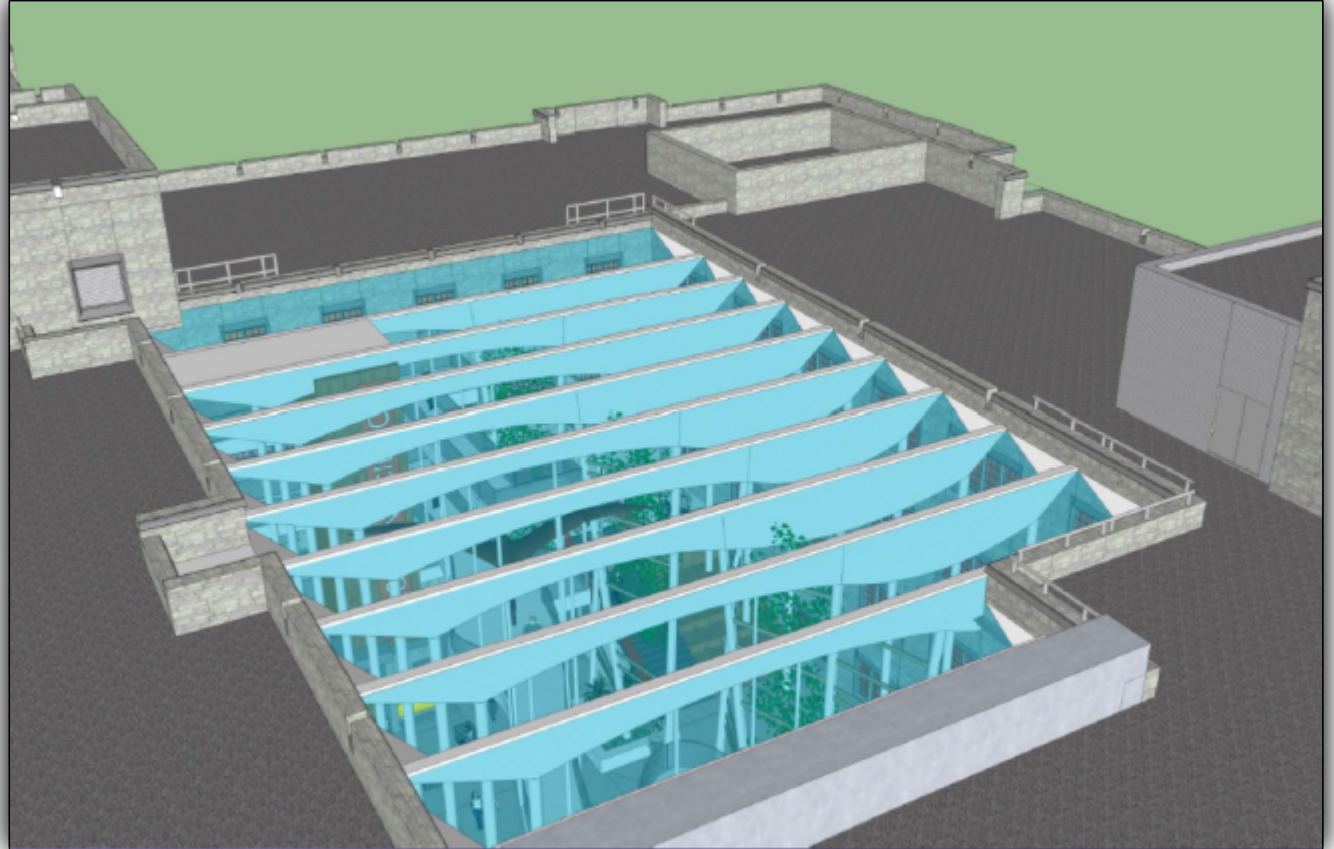
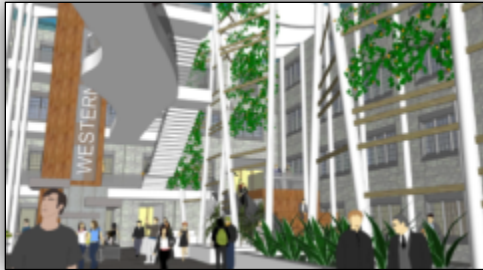


Academics at the Core



Physics & Astronomy

Academics at the Core

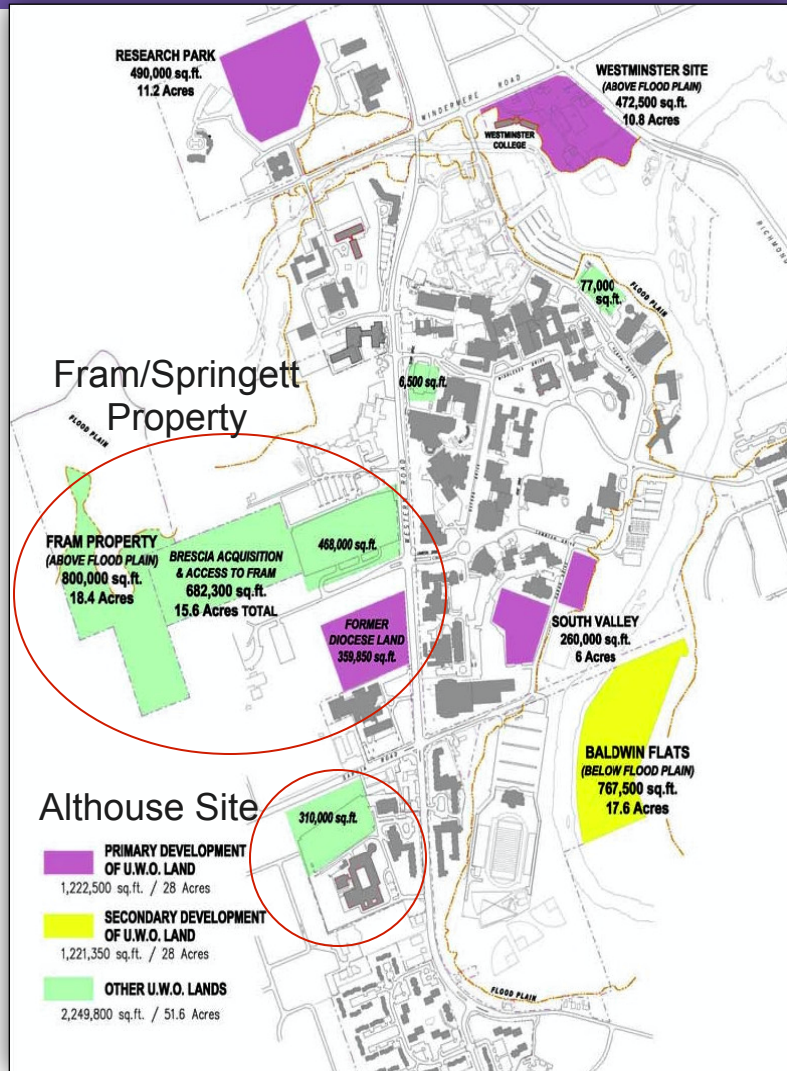


Biology & Geology Courtyard

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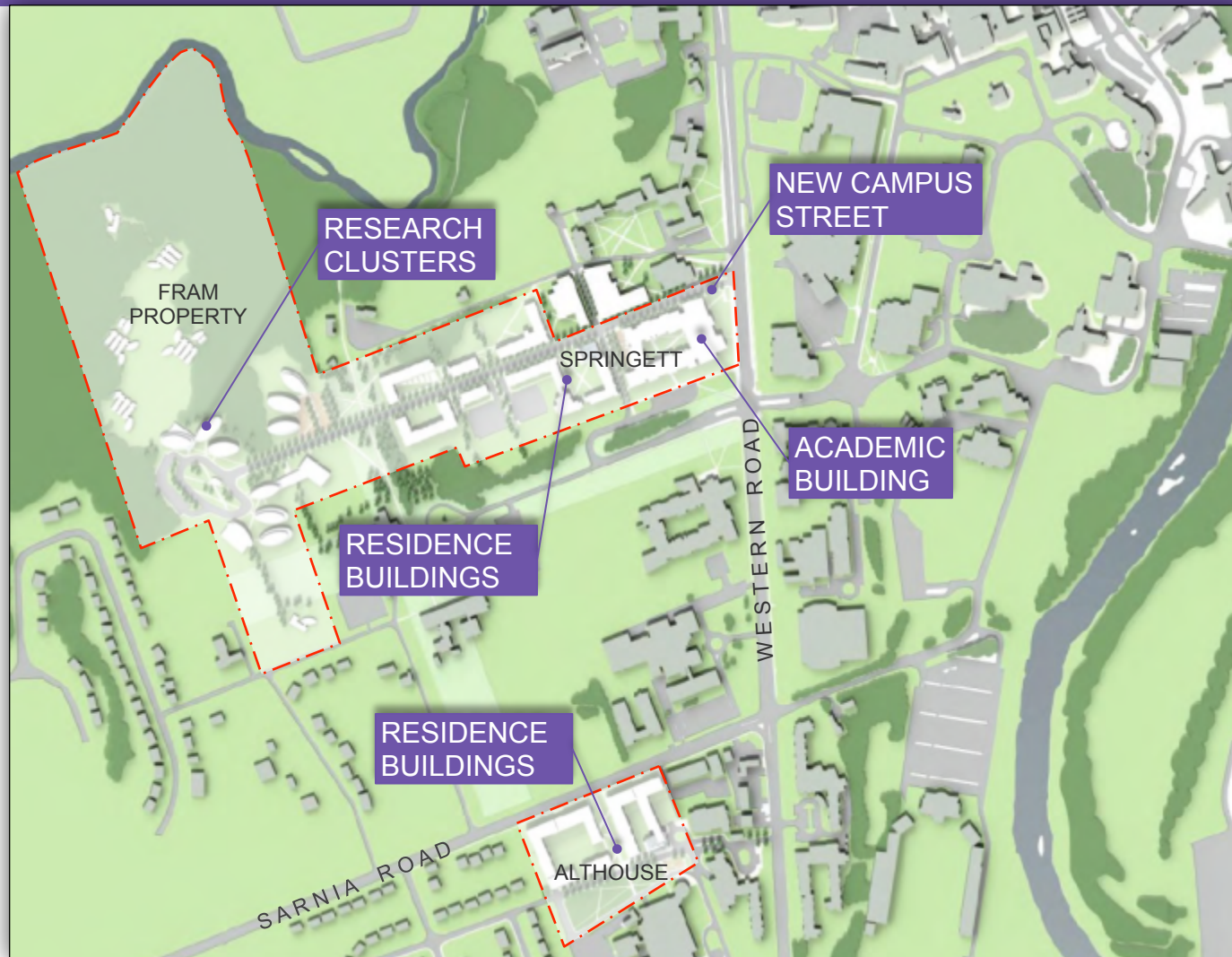


Master Plan Update – Why Now?



- Change in strategic directions:
 - increased undergraduate enrolment;
 - internationalization

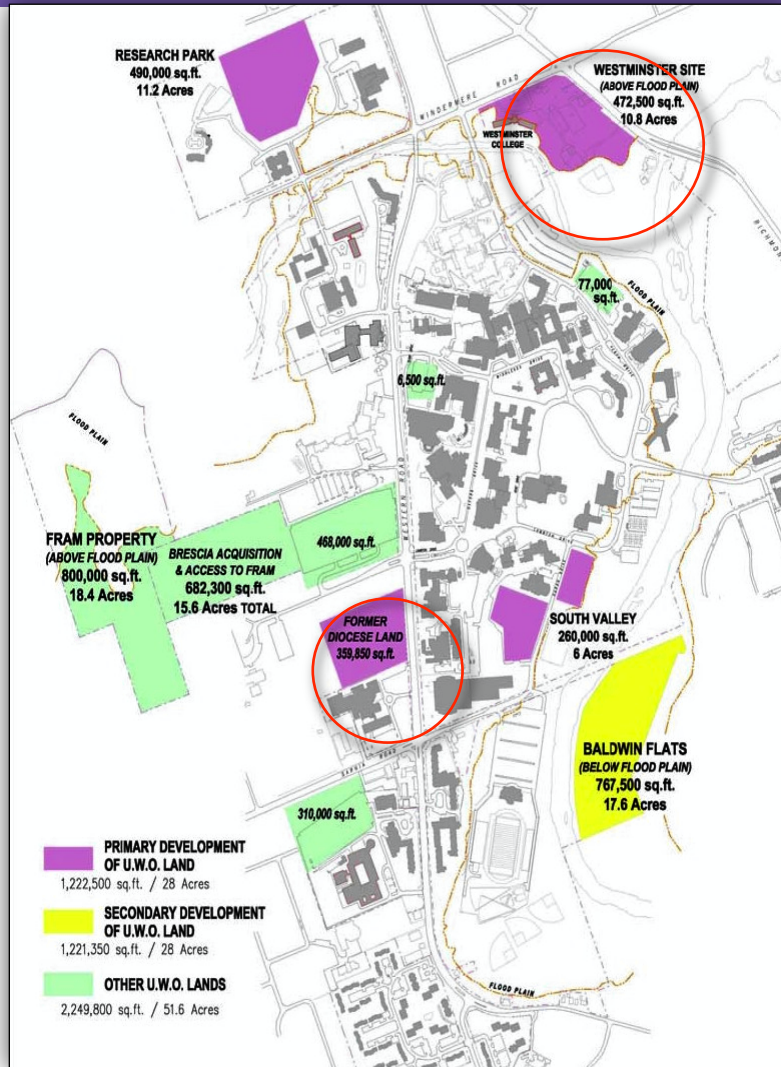
Master Plan Update – Why Now?



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Master Plan Update – Why Now?

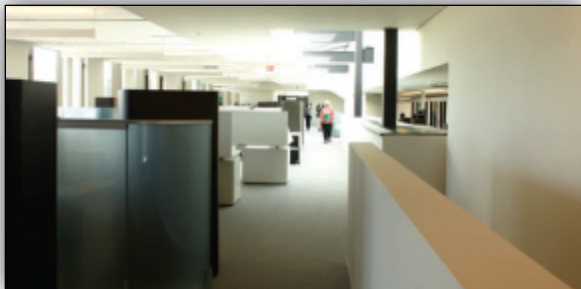
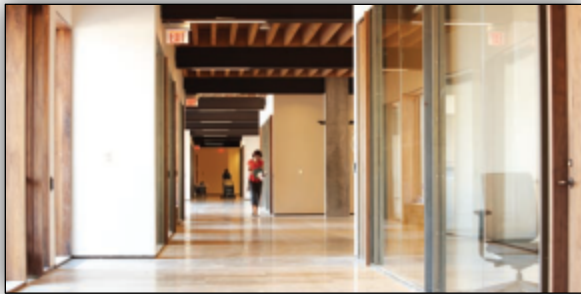


- Expansion to other areas

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Master Plan Update – Why Now?



The New
Richard Ivey
School of Business



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Master Plan Update – Why Now?



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Master Plan Update – Why Now?



Advanced Manufacturing Park

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Master Plan Update – Why Now?

- Incorporate recent studies
- Overall parking/transportation strategy
- Overall landscape/open space strategy
- Environmental Stewardship

The Process

- Request for Proposals: January, 2012
- Creation of a campus planning reference group who will provide the necessary commentary and direction
- Communication and updates throughout the process
- Timeline: through Fall, 2012

Sustainability at Western

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President's Advisory Committee on Environment and Sustainability (PACES)

- co-chairs: VP Academic and VP Resources & Operations
- established with adoption of Environment and Sustainability Policy, June 2010
- 15-members - spans Western community (including graduate and undergraduate students)

President's Advisory Committee on Environment and Sustainability (PACES)

Mandate:

- establish specific goals for sustainability
- develop communication tools
- advise on policy
- report annually to the University Community
- June 2012 - a Sustainability Vision, with associated Goals and Objectives

Sustainability at Western

Presenters:

Beverley Ayeni, BESc and MBA
Energy and Environment Manager,
Facilities Management

Lindsay Telfer
Sustainability Solutions Group

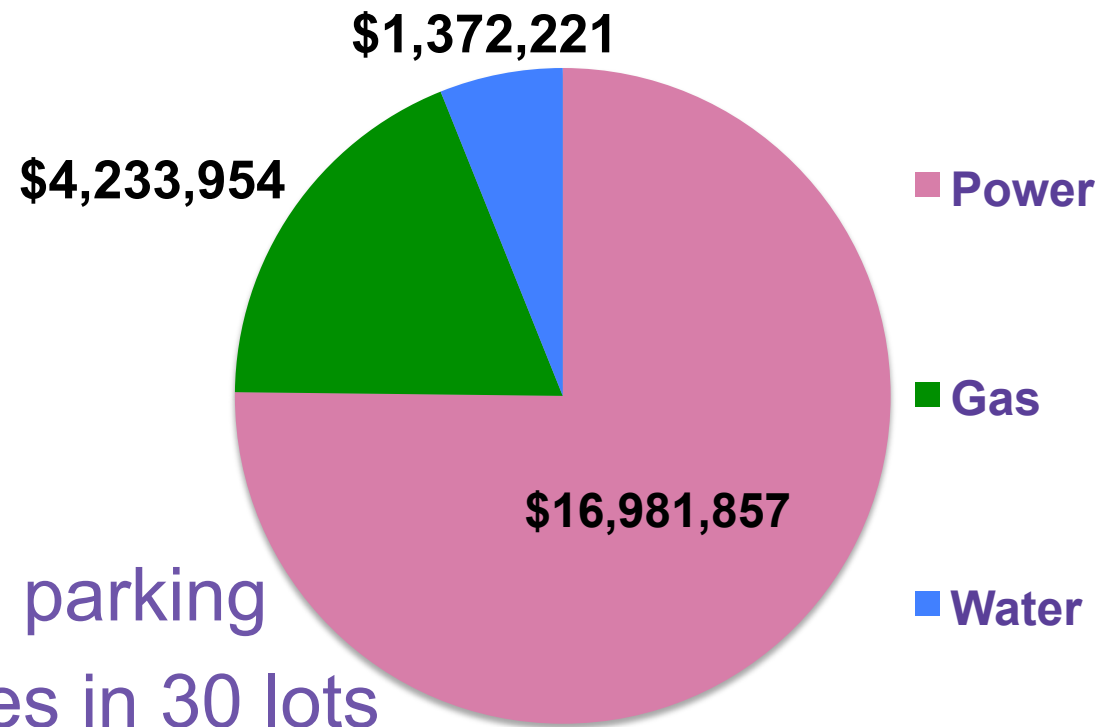
Sustainability at Western

Overview:

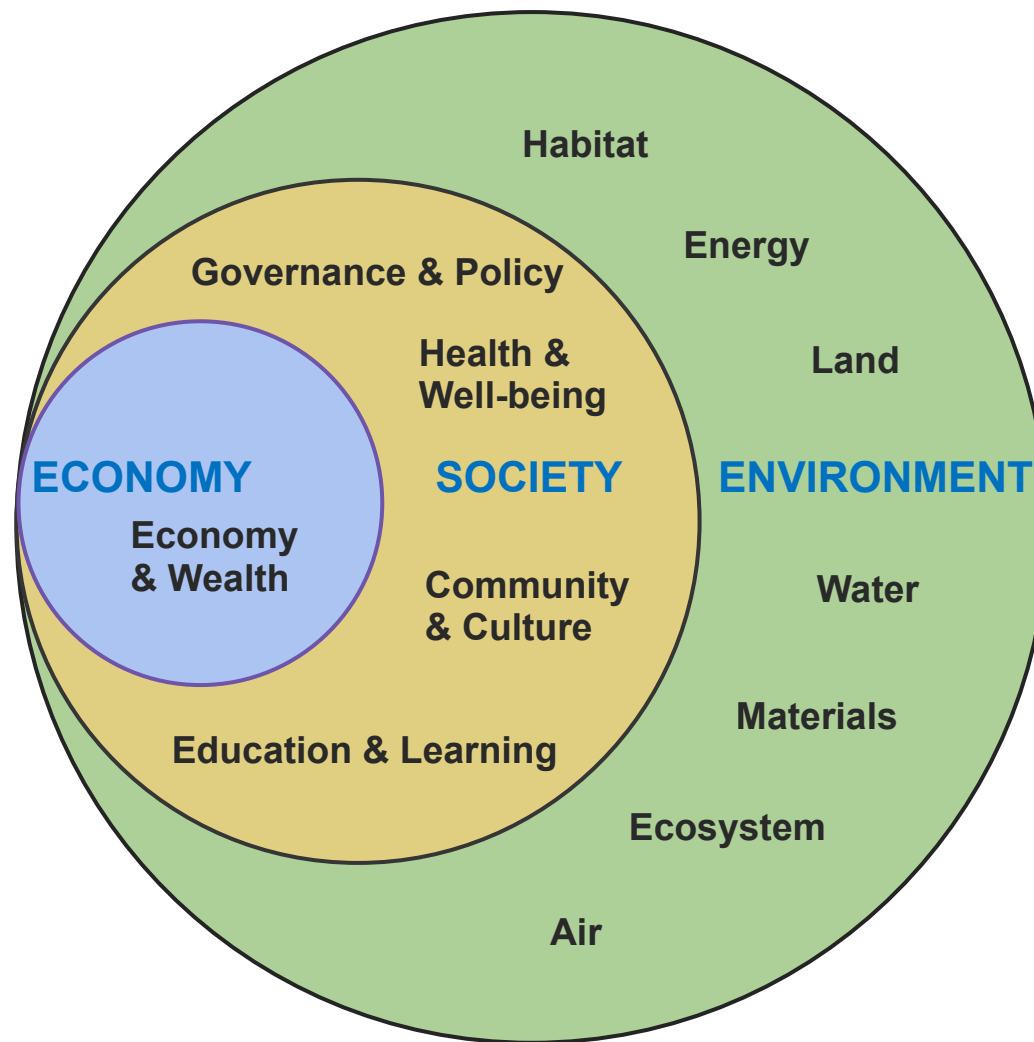
- Western Today
- Sustainability Definition
- Western Initiatives
 - LEED
 - Recycling
 - Hospitality
 - Energy

Western Today

- Annual utility bill: **\$22.5 million**
- 8 million ft² +
- 87+ buildings
- 16kms of roadway
- 15kms of sidewalks
- 1187 acres of land
- 2,000 spots for bike parking
- 6,300 parking spaces in 30 lots



Sustainability



Western Initiatives: LEED

- Leadership in **E**nergy and **E**nvironmental **D**esign
- Rating system for the **design, construction** and **operation** of high performance green buildings
- Ensures sustainable building design including: **energy** and **water efficiency** measures, **natural material selection**, and **air quality**
- Western has mandated that it will achieve **silver certification** or greater for renovations and new building projects

Western Initiatives: LEED

How many **LEED certified** buildings does Western have?

- a) 3
- b) 7
- c) 1
- d) I've never heard of LEED

Western Initiatives: LEED

1 LEED GOLD certified building: **The Claudette MacKay-Lassonde Pavilion (CMLP)**

6 buildings registered for LEED certification:

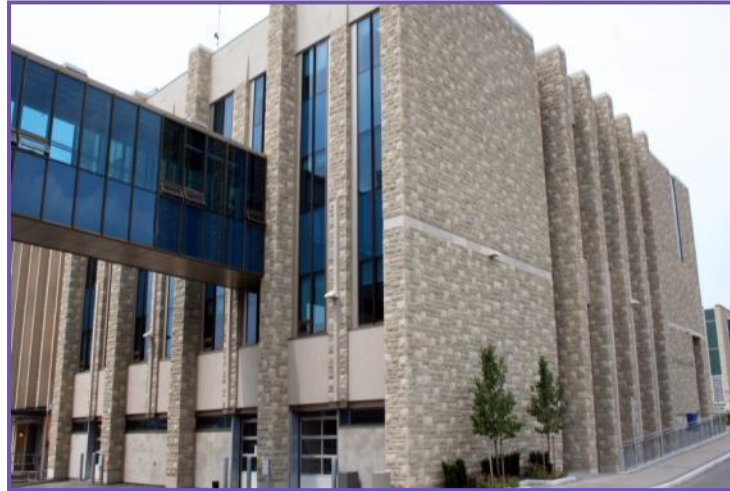
- McIntosh Gallery
- Stevenson Hall/Lawson Hall
- Richard IVEY School of Business
- Physics and Astronomy Building
- Medical Education Centre
- New Residence
- **Sign up for a tour!! www.uwo.ca/fm/greentours**



Western Initiatives: CMLP - LEED



Wind Turbine



Solar Panels



Green Roof

Western Initiatives: LEED

LEEDing the way

A tour of the Claudette MacKay-Lassonde Pavilion

Western Initiatives: Recycling

- Western produces approx. 2,000 tonnes of garbage annually:
 - 15% are coffee cups
 - Use a reusable mug
 - 20% are items that are recyclable (paper, bottles, cans)
 - Think before you throw it away
 - Be diligent



Western Initiatives: Recycling

- 240 tonnes of organics are collected annually
- Battery collection program
 - 1000kgs diverted in 2010
 - Battery bins located on every floor in every building
- Ink Jet Recycling
- Outdoor Recycling Bins (Summer 2012)



Western Initiatives: Hospitality

Mission Statement:

– *Hospitality Services is committed to creating, producing and enhancing a sustainable culture for the life legacy of the Western community*

- “No-Idling” policy
- Elimination of Styrofoam
- Bring your own mug...save 10 cents!

Western Initiatives: Water

- Installed more efficient shower heads and faucets in residences and recreation centre **saving:**
 - 45,522 m³ of water and \$66,000 annually
 - 140,853 m³ of natural gas and \$59,000 annually
- Installing water filling stations on campus:
 - 15 installed to date; 9 residences summer 2012
 - Touchless, and quick-fill
 - Provides filtered water



Western Initiatives: Electricity

- Last 5 years – replaced T12 lights with 50,000 more-efficient T8 lights (approx. 30% more efficient)
- Lighting control systems installed in UCC have saved 41,226kWh and \$4,122
 - Don't use more light than needed
 - Use task lighting
 - Make the most of natural light
 - Switch off lights in empty rooms
 - Turn the lights off when you leave the room!

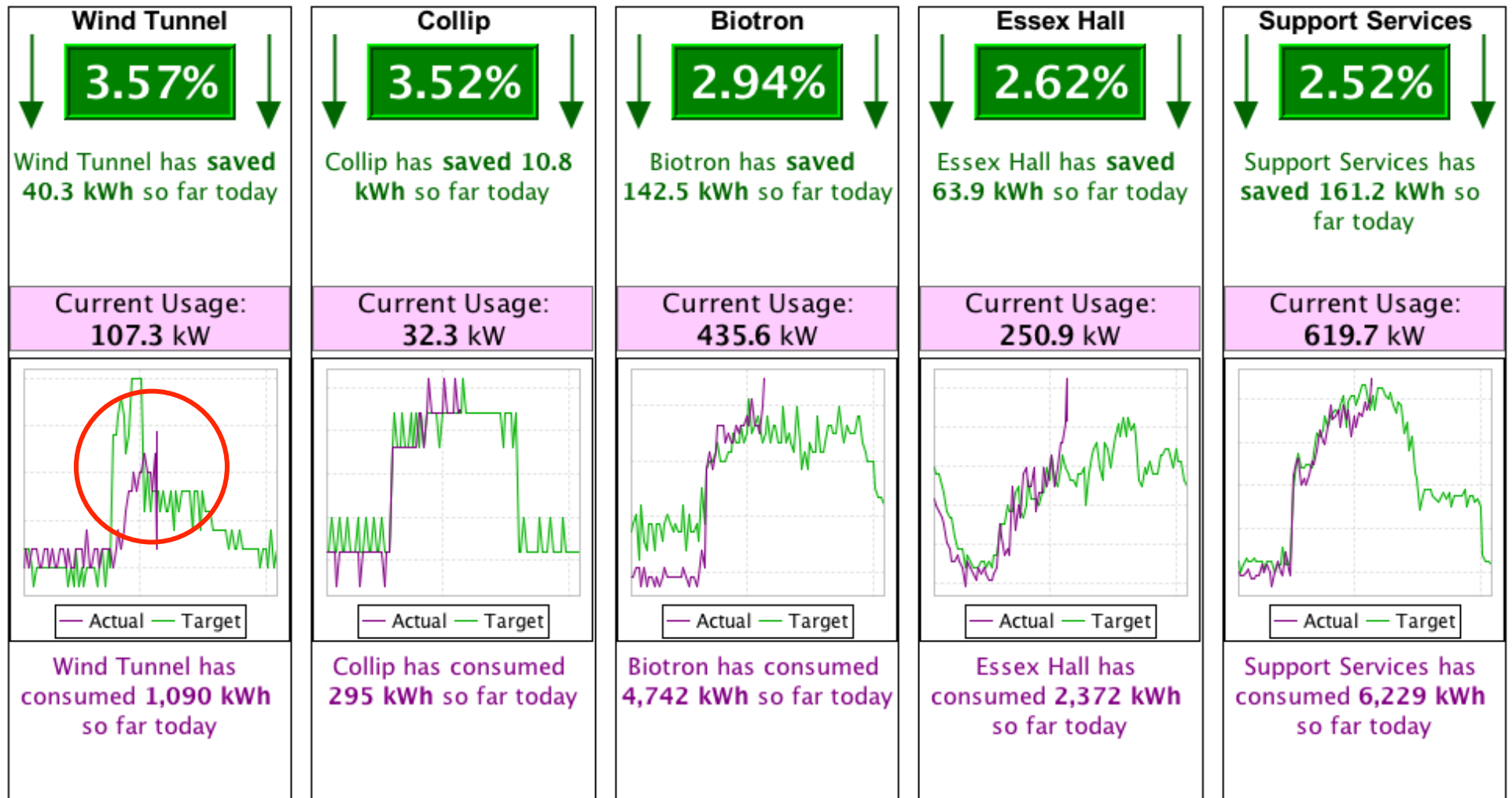


You can save up to 15% just by turning off lights in rooms and corridors that aren't being used

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Western Initiatives: Electricity Dashboard



Western Initiatives: Electricity Dashboard

Select Node: Wind Tunnel

Select Benchmark: Last Year

Wind Tunnel
107.5 kW

Today

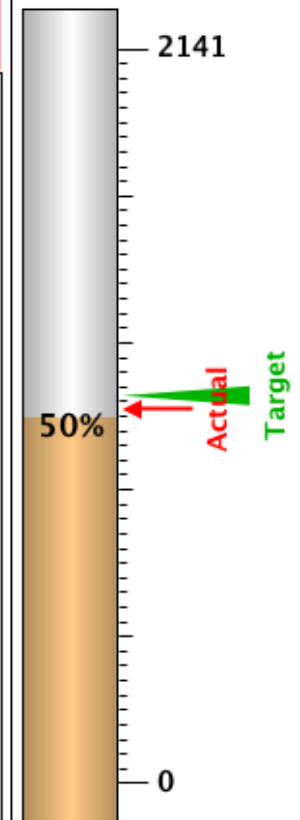
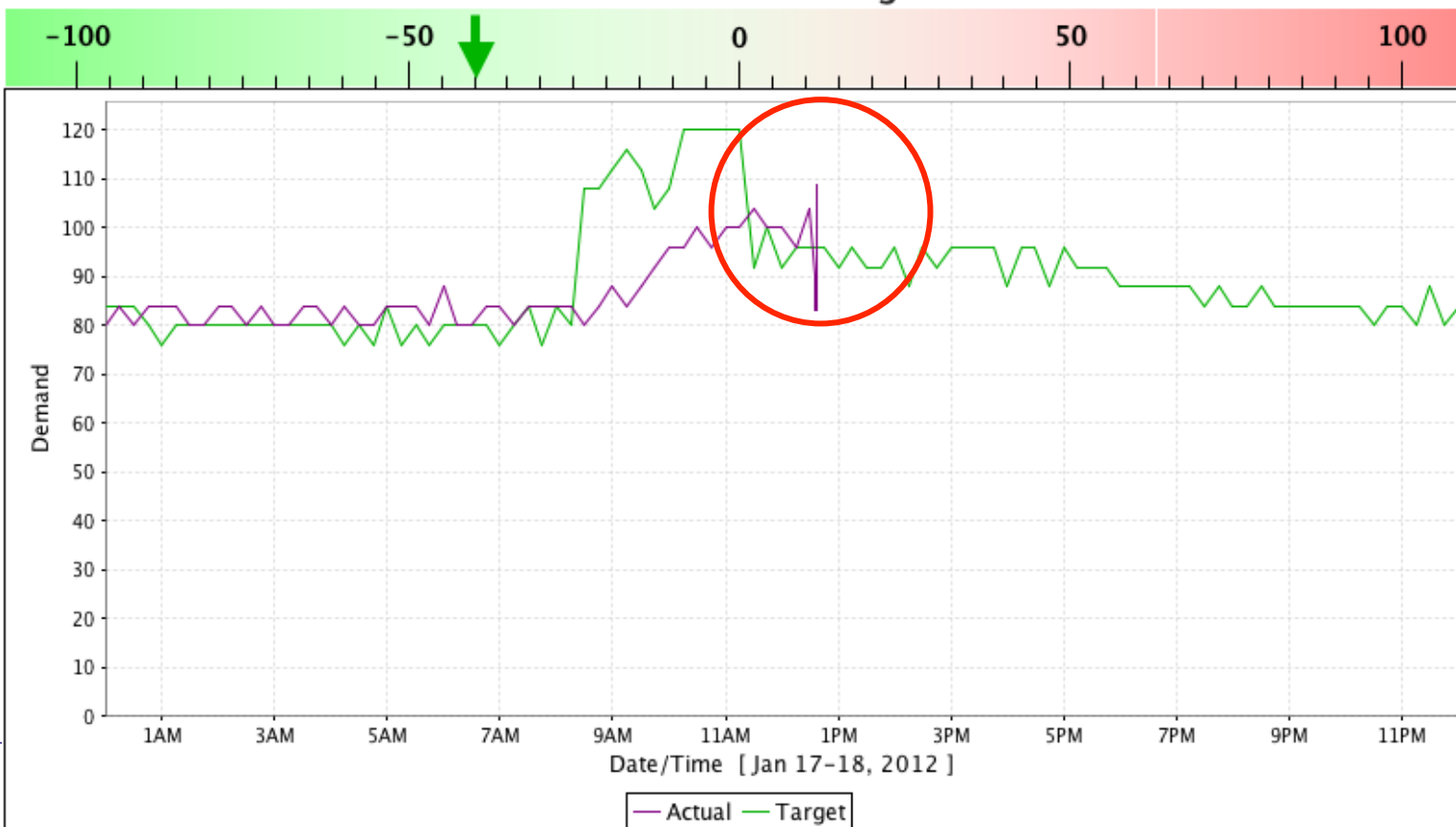
This Week

This Month



39.7 kWh below target

Total Consumption Budget (kWh)



Western Initiatives: Electricity Dashboard



University of Western Ontario: Energy Management Tool

Campus Overview

Performance

Building Details

Energy Targets

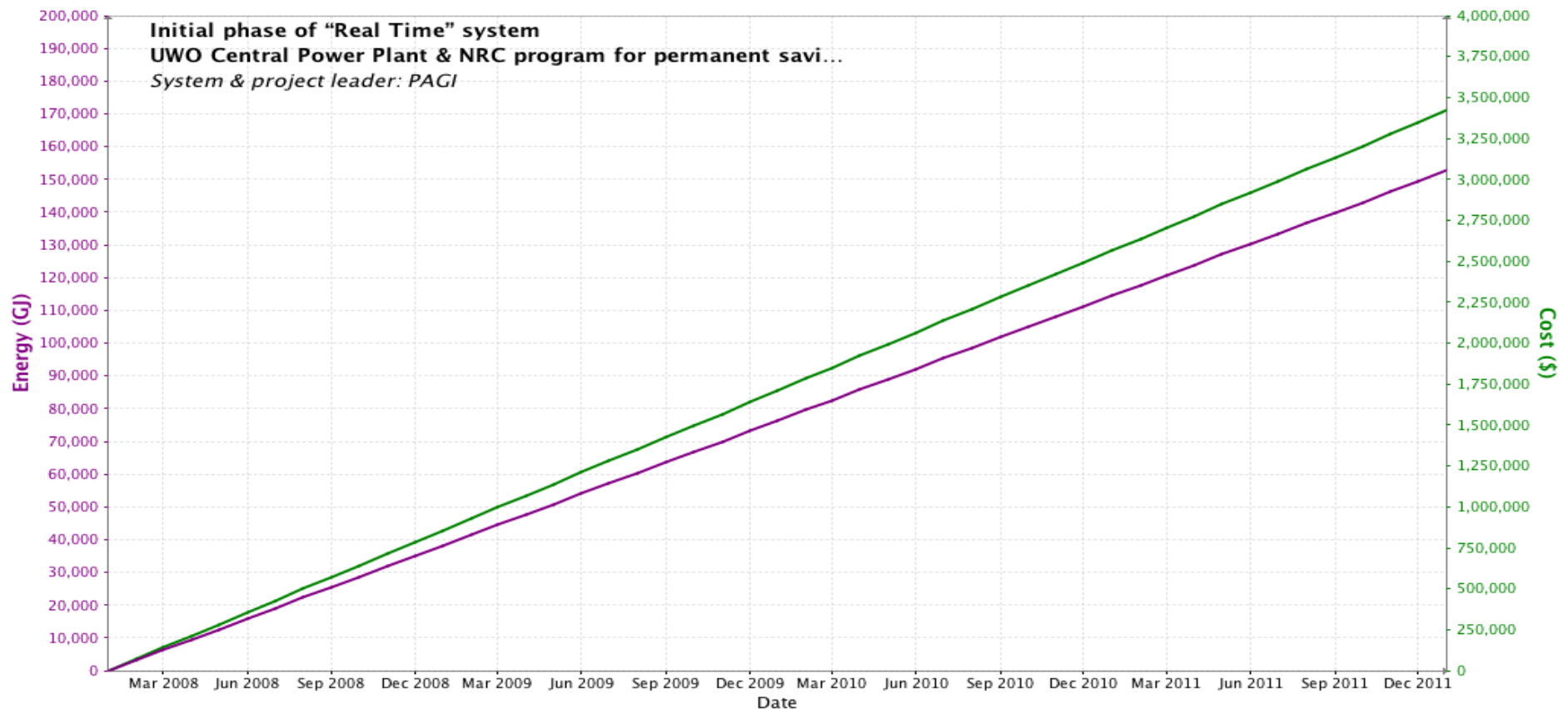
Monthly Consumptions

NRC Savings

Utility Operating Cost Avoidance Through Energy Savings

Total Avoided Energy Since January 2008: **154,257.22 GJ**

Total Avoided Energy Cost Since January 2008: **\$3,456,356.40**



IMAGINE 2022 | Our path to sustainability

Lindsay Telfer, Associate Member
Sustainability Solutions Group

IMAGINE 2022 | Our path to sustainability

Overview:

- Introduce the **IMAGINE 2022** project
- Highlight **best practices** from other campuses
- Share strategies to **integrate sustainability**
- Hear **your vision** for Western sustainability

Imagine 2022 – Project Timeline



Energy Conservation

- Eastern Kentucky University- 50% reduction in energy use since 2005
- UBC – 2008 Energy service audit of 288 buildings - energy and water savings of \$4.2million per year
- MIT, 2005-2010 - invested over \$4 million in energy conservation measures saving over \$3M annually

Colorado State University Solar Project

One of the largest solar plants on a US campus.



UBC Sustainable Food Systems



- UBC procures ONLY 100% fairly traded, organic, shade-grown coffee.
- Electric Vehicles for campus catering.
- Engaged over 900 students on food-related research
- UBC Farm

Sustainability Action Funds

- “How do we inspire innovation and involvement by staff, students and faculty around sustainability?”
- On many campuses including Queens, Concordia, UBC
- Funded by specific donors, energy savings, tuition add-ons, etc.

ETH Zurich - Switzerland

- Has an 80% non-vehicular transportation rate on its campus.
- Free or discounted public transit fares
- Subsidies for carpooling with car sharing program for staff and students
- Self-service bicycles available for free for three hours on campus

Sustainable Concordia's Ambassador Program

- A member of Concordia's staff or faculty who strives to promote and encourage sustainable actions and attitudes at Concordia.
- Provides concrete steps to contribute to sustainability on campus.

Western's Green Awards



Applications for 2012 begin late January

More information?

<http://sustainability.uwo.ca>

greenawards@uwo.ca



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Sustainability at Western Challenges and Opportunities

- ❖ Community engagement and coordination
- ❖ Communicating and celebrating accomplishments
- ❖ Coordinating sustainability initiatives
- ❖ Identifying the top sustainability priorities for Western moving forward

A Western Vision for Sustainability

- People at Western want to see:
 - Green Space
 - A Bike-Friendly Campus
 - A Zero-Waste Campus
 - An engaged and active community
 - A healthy campus
- What do you want to see?

Thank You!

IMAGINE 2022 | Our path to sustainability

www.imagine.uwo.ca

imagine@uwo.ca

Lindsay Telfer
Sustainability Solutions Group
www.sustainabilitysolutions.ca

February 22nd & 23rd, 2012

ignite

2012 WESTERN STAFF &
LEADERS' CONFERENCE

Registration Opens February 1st, 9:00am

www.uwo.ca/humanresources/conference

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The Western Awards of Excellence

Thurs. Feb. 16th, 2012
2:30pm, Great Hall

Reception to follow ceremony

Registration and details will be available at:

<http://www.uwo.ca/pvp/recognition/>



6th Annual Faculty of Health Sciences Distinguished Lecture

Topic: Mental Health

Speaker: Margaret Trudeau

Thursday, March 29, 5:00 -6:00 p.m.

Alumni Hall

All welcome – please spread the word!

Next Leaders' Forum

April 12, 2012

– Leadership for a Vibrant Future