The Arboretum
University of Guelph

Operational Plan
2006 – 2011

UPDATED AS OF AUGUST, 2011
Acknowledgements

The author would like to thank all those who have had input into the development of the Operational Plan and who have commented upon its various drafts:

Members of the Operational Plan Committee

<table>
<thead>
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<th>Position</th>
<th>Institution/Role</th>
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<tbody>
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Front cover images:
Left: *White pine (Pinus strobus)*
Right: *Mac '62 sugar maples (Acer saccharum) in the OAC '56 Park in the Garden*
# Operational Plan: 2006 – 2011

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1. Introduction

In December 2004 the University of Guelph Board of Governors approved a master plan for The Arboretum.

The Arboretum Master Plan (AMP) considers physical infrastructure, Arboretum programs, access and movement, and the use and management of the land base. It takes a broad overview and is concerned with establishing a vision, planning principles, form, location for facilities and landscape elements. It provides a framework for future development within the context of needs and financial resources.

The AMP forms the template on which the present Operational Plan has been developed. The Operational Plan guides the implementation of detailed objectives for education, research and outreach that were identified by the Arboretum Master Plan Steering Committee during the consultation process. This Operational Plan also contains a strategic and financial framework for the physical development and future operations of The Arboretum.

The Operational Plan is designed to be read as an integrated document. There are a number of cross-linkages throughout as a result of the close reference to the AMP.

Arboretum Mission Statement

The Arboretum, an integral part of the University of Guelph, has a mandate to promote education, research and outreach.

Timeframe / Responsibility

Ongoing: Strategic actions may commence at any time through the life of the Plan though may require regular activity, monitoring or review. Priorities for aspects of these strategic actions may be necessary, with these priority tasks identified as part of the annual planning process.

Short Term: High Priority or required to be completed as part of a sequence of tasks – or as a discrete action within 1-2 years.
September 2006 to August 2007
September 2007 to August 2008

Medium Term: Medium Priority, commence on completion of high priorities – within 2-3 years. Elements of actions may be commenced earlier.
September 2007 to August 2008
September 2008 to August 2009

Long Term: Actions are expected to commence during the fourth or fifth year of the Plan. The timeframe may be dependent on completion of other actions or the actions may be lower in priority.
September 2009 to August 2010
September 2010 to August 2011

Responsibility: The University position or Arboretum Group that has the major responsibility for carrying out the Action is listed after each timeframe.

2. Strategic Objectives

The Arboretum Master Plan developed eight (8) objectives that direct The Arboretum as an “outdoor learning resource,” a “living laboratory” and a community resource to:

1. Provide information resources for teaching, learning, research and outreach.
2. Promote and further develop the facilities and programs that are available.
3. Promote the unique plant collections available for teaching, research and outreach.
4. Participate in teaching, research and outreach, including course and program development both within and outside the University.

5. Provide critical support for the University’s strategic research directions.

6. Assume a leadership role in the management of natural heritage lands as models of restoration and sustainability.

7. Partner with other institutions and associations to expand the influence and reputation of The Arboretum.

8. Promote volunteer programs and community involvement in The Arboretum.

Each of these objectives is presented with the strategies and actions developed to enable The Arboretum to achieve the objectives and thereby the vision of the master plan. Key outcomes and potential performance measures have been developed for each objective to enable ongoing assessment of progress of the strategies and actions. These may be modified when the Operational Plan, as stated in the Arboretum Master Plan, is regularly updated.

2.1 Arboretum Master Plan (AMP) Key Issues

During the Arboretum Master Plan process eight (8) Key Issues were identified:

1. Concerns about the long-term protection of Arboretum lands and other assets for research, education and community use within the context of the University and the City.

2. The nature and focus of The Arboretum’s future role within the University and the City, including its stature in the international community.

3. The need for sustainable funding to develop, maintain and manage Arboretum assets and programs in the long range.

4. A lack of awareness of the resources available at The Arboretum to support research, education and other needs.

5. Capacity limitations to provide for human and physical resources to meet both existing and future program needs.

6. The need for partnerships with academic units, researchers, industry, government, the community and others to achieve long-term objectives.

7. An aging infrastructure that requires immediate attention.

8. Concerns about impacts from surrounding land-use changes and the need for improved integration with existing and proposed natural and built urban systems.

The Operational Plan shows the linkage between each strategic objective and specific key issues under the heading, AMP Key Issues Addressed.
Objective 1

Provide information resources for teaching, learning, research and outreach.

Key Outcomes

- Innovative, relevant and high quality information resources
- Information resources that relate to education, research and outreach as referred to in The Arboretum Mission Statement
- Signage that is informative, interpretive and seasonally relevant
- Enhanced experiences and learning for all visitors
- Promotion of research opportunities to academic departments
- Enhanced website content

AMP Key Issues Addressed

1. Concerns about the long-term protection of Arboretum lands and other assets for research, education and community use within the context of the University and the City.

2. The nature and focus of The Arboretum’s future role within the University and the City, including its stature in the international Community.

3. The need for sustainable funding to develop, maintain and manage Arboretum assets and programs in the long range.

4. A lack of awareness of the resources available at The Arboretum to support research, education and other needs.

6. The need for partnerships with academic units, researchers, industry, government, the community and others to achieve long-term objectives.

7. An aging infrastructure that requires immediate attention.

Performance Measures

- An Interpretation Strategy
- An increase in use of the site by researchers
- Visitor evaluations of information resources, collected, analyzed and published each year

Information sign highlighting one of the Endangered trees in the World of Trees collection: Photo C. Earle
Objective 1

Provide information resources for teaching, learning, research and outreach.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Action</th>
<th>Timeframe / Responsibility</th>
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<tbody>
<tr>
<td>O.1.1 Revise staffing structure to meet AMP objectives</td>
<td>1. Implement a staffing structure which will provide collegial leadership and responsibility for teaching, learning, research and outreach (see p 33)</td>
<td>Ongoing / Director; Dean</td>
</tr>
<tr>
<td>O.1.2 Provide high quality resources to enhance the learning experiences offered by the plant collections and natural areas (see O.3.4.4)</td>
<td>1. Continue to develop educational resources and materials related to Arboretum collections, demonstration projects and natural areas for registered participants in education programs 2. Further develop educational resources and materials related to Arboretum collections, demonstration projects and natural areas that provide the visitor with enriched learning opportunities while on site. Include these on the website 3. Prepare and implement an interpretation strategy that includes philosophy and design principles for all information systems 4. Investigate the development of CD/DVD materials 5. Investigate the development of booklets and books</td>
<td>Ongoing / Ed. Coordinator</td>
</tr>
<tr>
<td>O.1.3 Produce materials that will promote research resources</td>
<td>1. Arboretum resources available for research will be promoted through academic advisors and program coordinators. Promotion will be via printed materials, on-site information sessions and website (see O.3.3.6)</td>
<td>Short / Director; Research Coordinator</td>
</tr>
<tr>
<td>O.1.4 Further develop and install enhanced signage for orientation purposes</td>
<td>1. Develop an Arboretum signage policy 2. Regulatory and directional signage for plant collections, building signs and direction giving icons 2. Evaluate and replace, if necessary, introductory signs in plant collections</td>
<td>Short / AMG* Ongoing / AMG</td>
</tr>
<tr>
<td>O.1.5 Develop an effective interpretation signs policy and approach</td>
<td>1. Investigate the design of interpretive signs that will attract visitors' attention and reveal meanings and relationships, and which can be changed seasonally, and install them</td>
<td>Medium / Ed. Coordinator</td>
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<tr>
<td>O.1.6 Evaluation of Plant Collection Information Brochures</td>
<td>1. Evaluate the current 22 information brochures that, in general, introduce the visitor to the objectives and content of plant collections</td>
<td>Ongoing / AMG</td>
</tr>
<tr>
<td>O.1.7 Maintenance of an Arboretum Website</td>
<td>1. Routine evaluation of the Arboretum website: <a href="http://www.uoguelph.ca/arboretum">www.uoguelph.ca/arboretum</a> 2. Continue to investigate internet resources, such as social networks, Web 2.0 and interactive components that can be used to promote The Arboretum</td>
<td>Ongoing / AMG</td>
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</tbody>
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* AMG = Arboretum Management Group (see page 33)
Objective 2

Promote and further develop the facilities and programs.

Key Outcomes

- Facilities that are effective in meeting the expectations of visitors, participants and clients.

- Education programs and activities that enrich the University and City communities learning experiences.

- Education programs and activities that increase people’s awareness of the mandate of The Arboretum and the importance of woody plants.

- Improved opportunities for University of Guelph students to access facilities and participate in Arboretum programs.

- Strengthen the connection, both physical and emotional, between City residents and The Arboretum.

AMP Key Issues Addressed

2. The nature and focus of The Arboretum’s future role within the University and the City, including its stature in the international community.

3. The need for sustainable funding to develop, maintain and manage Arboretum assets and programs in the long range.

5. Capacity limitations to provide for human and physical resources to meet both existing and future program needs.

7. An aging infrastructure that requires immediate attention.

8. Concerns about impacts from surrounding land-use changes and the need for improved integration with existing and proposed natural and built urban systems.

Potential Performance Measures

- Level of increased income from facility rentals.

- Productivity and quality of propagated plant material.

- Feedback from program participants.

- Increase usage by students and by the public.
## Objective 2

**Promote and further develop the facilities and programs that are available.**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Action</th>
<th>Timeframe / Responsibility</th>
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<tbody>
<tr>
<td>O.2.1 Renovate existing Arboretum buildings to enhance their effectiveness</td>
<td>1. <strong>OAC Centennial Arboretum Centre</strong>&lt;br&gt;Construct a Gazebo adjacent to the West Lawn to expand use and increase rental income&lt;br&gt;Upgrade the Centre when benefaction or external investment permits, to increase the rental income</td>
<td>Short / AMG</td>
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<td>2. <strong>R.J. Hilton Centre / Greenhouse Facilities</strong>&lt;br&gt;Conduct an assessment of the facilities of the Hilton Centre to fit a future role in administration, research and site maintenance. Moving most of the administrative office to the renovated Hilton Centre would achieve two goals: a) Improve communication between “on the grounds” service staff and management staff; b) provide increased space in the OAC Centennial Arboretum Centre for rental and special-event use.&lt;br&gt;The greenhouse facilities provides space and systems needed for the propagation of plant material for collection maintenance and development as well as plant material for educational programs and the plant sale. The Arboretum Master Plan identified the existing greenhouse facilities as obsolete. Evaluation of need and cost-effective alternatives on the main campus is a necessary step towards developing a long-term operational plan for reinvestment in the Hilton Centre.</td>
<td>Medium / AMG</td>
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<td>3. <strong>J.C. Taylor Nature Centre</strong>&lt;br&gt;Change the educational focus of the J.C. Taylor Nature Centre from a classic “nature centre” to: i) the location of The Arboretum’s environmental education workshops ii) display area and location for programs related to the adjacent Gosling Wildlife Gardens&lt;br&gt;Renovate and change the name of the J.C. Taylor Nature Centre to reflect its new educational uses. For example, the building could be named the J.C. Taylor Education Centre or J.C. Taylor Centre</td>
<td>Short / Director</td>
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<td>4. <strong>Hales-McKay Memorial Shelter</strong>&lt;br&gt;The location of this building (adjacent to the OAC Centennial Arboretum Centre and in the geographic centre) makes it an ideal location for visitor information and orientation. Replace the roofing of this building</td>
<td>Long / AMG</td>
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<td>5. <strong>Grant House / Harrison House</strong>&lt;br&gt;This heritage house would serve as a base for allied organizations and special amenities. The funding, operation and management of this centre would be external or community-based. This self-financed facility could be the site of offices, meeting rooms, a gift shop and a tea room, and provide financial support to The Arboretum&lt;br&gt;The grounds could be developed for gardens that demonstrate the use of heritage plants. Another idea suggested during the planning process was to provide a spiritual or meditative garden. The building would provide a focus for horticulture and gardeners and serve as a regional cultural centre&lt;br&gt;As Harrison House is adjacent to the R.J. Hilton Centre it is easily linked to facilities and activities at the R.J. Hilton Centre such as the greenhouse, propagation facilities and educational activities</td>
<td>Long / AMG</td>
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**Objective 2**

*Promote and further develop the facilities and programs that are available (continued).*

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<thead>
<tr>
<th>Strategy</th>
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| O.2.2 Renovate existing public and service roads | 1. Evaluate the existing service road system  
2. Develop the existing exit at College Avenue into the major entrance to The Arboretum site  
3. Locate an entrance/welcoming sign at the new College Avenue entrance  
4. Following resolution of how to finance on-site parking, expand the OAC Centennial Arboretum Centre parking lot | Short / Phys Res.; Arb Manager.  
Medium / Director  
Medium / Phys Res; Arb Manager |
| O.2.3 Evaluate the policies related to existing Arboretum programs | 1. Investigate other examples of educational policies, practices and content | Short / Ed. Coordinator |
| O.2.4 Evaluate the existing educational programs | 1. Further develop educational opportunities  
2. Investigate opportunities for expansion of the Children’s Theatre. Further the existing partnerships with local businesses and elementary schools  
3. Evaluate the objectives of existing Arboretum workshops  
4. Investigate the potential for increased student group tours during “Frosh Week” and at other times of the academic calendar  
5. Investigate the feasibility of offering teacher and other professional training in the area of environmental education and natural history | Ongoing / Ed Coordinator  
Ongoing / Ed Coordinator  
Short / Ed. Coordinator  
Short / Ed. Coordinator  
Medium / Ed. Coordinator |
| O.2.5 Develop the site to be more accommodating to non-vehicular using visitors | 1. Assess the feasibility of Developing a trail link from The Arboretum to the Eramosa River Valley and Trail System will be explored. The trail would provide a safe route for students and the public to enter The Arboretum from the northeast.  
2. Explore with the residents of the Village by the Arboretum the development of a pedestrian path between the Village by the Arboretum and The Arboretum.  
3. Develop a pedestrian “Promenade” through the central core of The Arboretum. The removal of private vehicles would improve the quality of The Arboretum environment and provide a combination walkway and bikeway that extends the experience of Reynolds Walk into the site. The tree-lined “Promenade” would become one of the major unifying features of The Arboretum and provide a visual link to The Arboretum from central campus  
4. Develop an improved sense of entry from the campus into The Arboretum. At the beginning of the proposed “Promenade” an entry space or plaza would make a direct connection between Alumni House the OAC Centennial Arboretum Centre. The proposed “alumni plaza” would serve as a fitting terminus to Reynolds Walk and as an entry to The Arboretum | Short / Phys Res.; Director  
Medium / Phys Res; Director; A A&D  
Long / Phys Res; AMG; A A&D  
Long / Phys Res; AMG; A A&D |
Sketching Workshop in the Gosling Wildlife Gardens.
Photos by C. Earley
Objective 3

Promote the unique plant collections available for teaching, learning, research and outreach.

Key Outcomes

- Themes and stories that bring the plant collections, gardens and displays to life
- Use of The Arboretum by faculty for teaching and research
- Public use of the plant collection

AMP Key Issues Addressed

2. The nature and focus of The Arboretum’s future role within the University and the City, including its stature in the international community.

3. The need for sustainable funding to develop, maintain and manage Arboretum assets and programs in the long range.

4. A lack of awareness of the resources available at The Arboretum to support research, education and other needs.

5. Capacity limitations to provide for human and physical resources to meet both existing and future program needs.

Potential Performance Measures

- Level of visitor satisfaction
- Benchmark with other institutions
- Number of faculty using the site for teaching
- Number of researchers using the site for research
- Increase in visitation
### Objective 3

Promote the unique plant collections available for teaching, learning, research and outreach.

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| O.3.1 Collection Development | 1. Further develop the provenance for all plant collections and displays and implement planting programs  
2. Review and implement contemporary plant curatorial practices, records, management and archival systems  
3. Review plant collection policies, guidelines and management plans and make necessary changes | Ongoing / AMG  
Medium – Ongoing / Asst Arb Manager  
Medium / Asst Arb Manager |
| O.3.2 Teaching             | 1. Develop a Faculty Advisory Committee to review, advise and promote the use of plant collections by faculty for teaching  
2. Develop Collection Information Packages that outline collection objectives and list collection plants. Include "testaments" from existing and past faculty users of plant collections. Make the Collection Information Packages available to all faculty  
3. Request time during faculty meetings to promote the teaching and learning potential of Arboretum plant collections | Short / Director  
Medium / Ed. Coordinator  
Medium / Director |
| O.3.3 Research             | 1. Publish and promote research outcomes  
2. Review objectives for the Gene Bank collection; assess plantings  
3. Establish a group of faculty who have an interest in research in The Arboretum. This group (Arboretum Research Associates) would help promote research in The Arboretum, and oversee the Research Endowment Fund (see O.4.2.2, C.P 5.3.1)  
4. Establish a research initiation and review structure, and funding model to address The Arboretum's research role  
5. Develop and implement research strategies with a focus on a) woody plants; b) interpretation; c) cultural and heritage landscapes  
6. Promote Arboretum resources with academic advisors and program coordinators (see O.1.3.1) | Ongoing / Res. Coordinator  
Short / Arb Manager;  
Short / Res Coordinator;  
Medium / Res Coordinator  
Medium / Res Coordinator, Asst Arb Manager, Ed Coordinator  
Medium / Res Coordinator, Director |
| O.3.4 Outreach             | 1. Review and develop marketing and promotional materials, on site and perimeter promotional signage  
2. Develop processes, activities and events to promote The Arboretum to University and broader community groups  
3. Review and develop information and interpretive material for collections  
4. Develop collection-related activities and events  
5. Develop processes that facilitate public access to collection objectives, plant lists, and locations of plants within collections (see O.1.2) | Ongoing / AMG  
Ongoing / AMG  
Ongoing / Ed Coordinator  
Medium / Ed Coordinator  
Medium / AMG |

See also Objective 5, page 14
See also Objective 6, page 17
Objective 4: Participate in teaching, research and outreach, including course and program development both within and outside the University.

Key Outcomes

- Expanded teaching role for The Arboretum
- Development of Arboretum Research Associates
- Arboretum-based research activities
- Enriching the lives of the University and broader communities by providing a site for community celebration, contemplation and peace

AMP Key Issues Addressed

2. The nature and focus of The Arboretum’s future role within the University and the City, including its stature in the international community.

3. The need for sustainable funding to develop, maintain and manage Arboretum assets and programs in the long range.

4. A lack of awareness of the resources available at The Arboretum to support research, education and other needs.

6. The need for partnerships with academic units, researchers, industry, government, the community and others to achieve long-term objectives.

Potential Performance Measures

- Level of University community participation in the teaching role of The Arboretum
- Number of research publications
- Numbers of learners
- Numbers of visitors
### Objective 4

**Participate in teaching, research and outreach, including course and program development both within and outside the University.**

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| O.4.1 Teaching | 1. Continue Arboretum faculty teaching, e.g. UNIV *2050DE (Environmental Prospective and Human Choices I); UNIV *3250DE (Environmental Prospective and Human Choices II); ENVB *3000 (Nature Interpretation); ENVB *3000DE (Nature Interpretation) and encourage faculty to showcase The Arboretum in new courses e.g., UNIV1200  
2. Investigate the potential for field study courses at The Arboretum that are offered through the “Ontario Universities Program”  
3. Investigate student internship opportunities in the areas of horticulture, arboriculture, landscape architecture, interpretation, organic agriculture and natural sciences  
4. Coordinate with the AVP(Academic) to investigate an academic perspective for The Arboretum, i.e., Arboretum based credit courses  
5. Investigate ways in which The Arboretum can be actively incorporated into a teaching role by coordinating with Departmental Curriculum Committees  
6. Develop opportunities for Elementary and Secondary Schools, and Post Secondary institutions to use The Arboretum | Ongoing / Director  
Short / Ed Coordinator  
Short / Ed Coordinator  
Medium / Director  
Medium / Director  
Medium / Director, Ed Coordinator, Arb Manager |
| O.4.2 Research | 1. Continue Arboretum research projects such as the Ontario Tree Atlas Project and the Elm Recovery Project, and initiate new projects  
2. Establish a group of faculty who have an interest in research in The Arboretum. This group (Arboretum Research Associates) would help promote research in The Arboretum, and oversee the proposed Research Endowment Fund (see C.P. 5.3.1)  
3. Explore opportunities for a “new collaborative start” with research institutes such as the Biodiversity Institute, and Royal Botanical Gardens (see O.7.1.1)  
4. Implement a Visiting Scholar program | Ongoing / Res Coordinator, Director, Asst Arb Manager  
Short / Res Coordinator  
Short / Res Coordinator  
Long / Director, Arb Ass, AMG |
| O.4.3 Outreach | 1. Provide a green space and learning site for the University and broader communities to participate in self-directed learning and recreational activities | Ongoing / AMG |

See also Objective 7, page 19
Objective 5

Provide critical support for the University’s strategic research directions.

Key Outcomes

- Research policies related to strategic research directions
- Research will drive funding at The Arboretum. As a research centre The Arboretum should receive overhead revenues.
- The Arboretum seek matching funds
- The objectives of The Arboretum will be met through increased research

AMP Key Issues Addressed

2. The nature and focus of The Arboretum’s future role within the University and the City, including its stature in the international community.

4. A lack of awareness of the resources available at The Arboretum to support research, education and other needs.

6. The need for partnerships with academic units, researchers, industry, government, the community and others to achieve long-term objectives.

Potential Performance Measures

- Active research
- Research focus for publications, e.g., “Fact Sheets”
- Increase in funding for research
- On-site signage highlighting research activities
## Objective 5

Provide critical support for the University’s strategic research directions.

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<tr>
<td><strong>O.5.1 Develop a research program related to specific Strategic Research objectives outlined in the University of Guelph Strategic Research Plan (UGSRP)</strong></td>
<td>1. Prepare research policies through input from The Arboretum Research Associates that are consistent with the “Research Excellence” objective of the UGSRP</td>
<td><strong>Medium</strong> / Res Coordinator</td>
</tr>
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</table>

| **O.5.2 Develop a research program that relates to specific themes for research and research training described in the UGSRP** | 1. Facilitate research that fits within the “environment, ecology and biodiversity” theme | **Ongoing** / Res Coordinator |
| | 2. Facilitate research that fits within the “agriculture and food” theme, specifically the area of “economic and environmental sustainability” | **Medium** / Res Coordinator |
| | 3. Facilitate research that fits within the “health and well-being” theme, specifically the area of “health” with respect to the value of non-urban spaces | **Medium** / Res Coordinator |

See Also Objective 3
Objective 6

Assume a leadership role in the management of natural heritage lands as models of biodiversity, restoration and sustainability.

Key Outcomes

- Natural Area Landscape Management Plan
- Report on the transferring of the Dairy Bush and Brown’s Woods to Arboretum management
- Educational programs with a restoration ecology themes

AMP Key Issues Addressed

1. Concerns about the long-term protection of Arboretum lands and other assets for research, education and community use within the context of the University and the City.

2. The nature and focus of The Arboretum’s future role within the University and the City, including its stature in the international community.

3. The need for sustainable funding to develop, maintain and manage Arboretum assets and programs in the long range.

8. Concerns about impacts from surrounding land-use changes and the need for improved integration with existing and proposed natural and built urban systems.

Potential Performance Measures

- Increase in flora and fauna database
- Quality of restoration plantings in The Arboretum
**Objective 6**

Assume a leadership role in the management of natural heritage lands as models of biodiversity, restoration and sustainability.

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<th>Strategy</th>
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</table>
| O.6.1 Review and implement the policies related to Arboretum natural areas leading to the development of a revised landscape management plan | 1. Continue floral and faunal surveys of Arboretum natural areas  
2. Promote the historic and on-going restoration of The Arboretum site through plantings of plantations, wildlife corridors, shelterbelts and windbreaks  
3. Review and implement policies for the Gene Bank collection with respect to the potential sale and distribution of seed material [see O.6.1.4]  
4. Investigate the potential production of native plant material from the Gene Bank seed orchard for use in restoration projects [see O.6.1.3]  
5. Investigate and report upon the benefits, costs and logistics of transferring the management of other University lands with environmental significance, namely a) Dairy Bush; b) Brown’s Woods | Ongoing / Interp Biologist  
Ongoing / Arb Asst Manager  
Medium / AMG  
Medium / AMG  
Long / Director; Phys Res |
| O.6.2 Link the management of natural heritage lands to educational programs | 1. Review existing educational programs to ensure that, where appropriate, they incorporate biodiversity, restoration and sustainability themes  
2. Investigate, develop and implement educational activities that relate to biodiversity, restoration and sustainability | Short / Ed Coordinator;  
Medium / Ed Coordinator |

See also Objective 3
Objective 7

Partner with other institutions and associations to expand the influence and reputation of The Arboretum.

Key Outcomes

- Partnerships and communication with other institutions
- Strategic interactions with other institutions and organizations

AMP Key Issues Addressed

2. The nature and focus of The Arboretum’s future role within the University and the City, including its stature in the international community.

3. The need for sustainable funding to develop, maintain and manage Arboretum assets and programs in the long range.

4. A lack of awareness of the resources available at The Arboretum to support research, education and other needs.

6. The need for partnerships with academic units, researchers, industry, government, the community and others to achieve long-term objectives.

8. Concerns about impacts from surrounding land-use changes and the need for improved integration with existing and proposed natural and built urban systems.

Ontario Tree Atlas Project (OTAP)

The Arboretum partnered with the following organizations for the Ontario Tree Atlas Project

- Genetic Heritage Program, Ontario Forest Research Institute
- Environmental Youth Corp Program
- Forest Gene Conservation Association

Potential Performance Measures

- Number of active partnerships and outcomes from them
Objective 7

Partner with other institutions and associations to expand the influence and reputation of The Arboretum.

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<tr>
<td>O.7.1 Review and strengthen existing partnerships</td>
<td>1. Assess benefits of existing partnerships and if appropriate, strengthen them, e.g. Botanical Gardens Conservation International, Canadian Botanical Conservation Network, Landscape Ontario, Forest Gene Conservation Association (see O.4.2.3)</td>
<td>Short / Director</td>
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<tr>
<td>O.7.2 Strengthen links with institutions having objectives and visions are aligned with those of The Arboretum</td>
<td>1. Dialogue with the American Public Gardens Association (APGA), formerly the American Association of Arboreta and Botanical Gardens (AABGA) 2. Dialogue with Museums and Science Centres 3. Build relationships with Ontario botanical gardens (e.g., Royal Botanical Gardens, Toronto Botanical Gardens, City of Stratford) and Arboreta (e.g., Ridgetown Campus Arboretum, Humber Arboretum) 4. Investigate the potential to work with other groups e.g., Ontario Horticultural Association, Master Gardeners, Ontario Nature, Field Botanists of Ontario</td>
<td>Short / Director; Arb Manager</td>
</tr>
<tr>
<td>O.7.3 Investigate potential liaisons with local volunteer organizations</td>
<td>1. Contact local volunteer organization representatives e.g., Volunteer Centre of Guelph &amp; Wellington (Arboretum is a member); Student Volunteer Connections to build relationships between Arboretum volunteers and volunteers of other organizations</td>
<td>Short / Res &amp; Services Asst Coordinator</td>
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Rotary Club of Guelph members participating in the “Spring Clean-up Day” in the Roy Hammond Rotary Tree Grove. Photo by A. Watson
Objective 8

Promote volunteer programs and community involvement in The Arboretum

Key Outcomes

- Increased profile for The Arboretum within the City and broader communities
- Even greater volunteer support to enhance Arboretum activities
- Increased fundraising activities
- An enhanced volunteer experience for community members and students

AMP Key Issues Addressed

3. The need for sustainable funding to develop, maintain and manage Arboretum assets and programs in the long term.

4. A lack of awareness of the resources available at The Arboretum to support research, education and other needs.

5. Capacity limitations to provide for human and physical resources to meet both existing and future program needs.

6. The need for partnerships with academic units, researchers, industry, government, the community and others to achieve long-term objectives.

Potential Performance Measures

- An increase in the number of volunteers
- High quality materials and policies to promote the volunteer program

Tree Atlas Volunteer

Auxiliary Docents volunteer their time to lead group walks for various associations and bus tours. Photo by C. Earley
## Objective 8

Promote volunteer programs and community involvement in The Arboretum.

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| O.8.1 Review, develop and update formal policies for volunteering at The Arboretum | 1. Production of a detailed Volunteer Manual to be provided to all volunteers  
2. Review of current volunteer policies, including Risk Management, Police Record Check, and Volunteer Screening  
3. Create a 'Volunteer Benefit Statement' to better define the reasons for volunteering at The Arboretum | Short / Vol Coordinator  
Ongoing / Vol Coordinator  
Short / Res & Services Asst Coordinator |
| O.8.2 Acknowledge changes in technology and incorporate “virtual volunteering” | 1. Provide volunteers with a free @uoguelph.ca email address and University of Guelph dial-up internet access (if required)  
2. Greater on-line presence and opportunities to participate in off-site activities | Short / Vol Coordinator  
Medium / Vol Coordinator |
| O.8.3 Put ROAR (Recruit, Orient, Activate and Retain) principles into effect | 1. Go beyond 'word of mouth' recruitment - establish a presence at volunteer fairs, utilize paid advertising, attendance at local volunteer conferences and training sessions  
2. Detailed task descriptions and outlines for all volunteer opportunities  
3. Succession planning (for volunteer leaders). Especially important for groups with a large volunteer involvement (e.g. plant sale, docents)  
4. Increased commitment to orientation and training, both task specific (computer, horticulture) and broad-based (to develop volunteer leaders)  
5. Awards (or rewards) system for volunteers | Short – Ongoing / Vol Coordinator; Marketing  
Short – Ongoing / Vol Coordinator  
Short – Ongoing / Vol Coordinator  
Medium / Vol Coordinator  
Medium / Vol Coordinator |
| O.8.4 Review involvement of volunteers to identify additional opportunities | 1. Identify further opportunities for volunteer involvement while mindful of requirements for greater staff supervision or involvement  
2. Implement a student volunteer program that would better suit the needs of University of Guelph students (scheduling flexibility, learning opportunities) | Short / Vol Coordinator  
Medium / Vol Coordinator |
| O.8.5 Encourage loyalty through a greater sense of volunteer ownership in the site | 1. Increase staff support for the volunteer program (to provide greater coordination of activities, and to fill the strategies outlined here)  
2. Provide materials for exclusive volunteer use - computers, office space, tools  
3. Grant House to become a volunteer centre | Medium / Vol Coordinator  
Medium / Vol Coordinator  
Long / Vol Coordinator |
| O.8.6 Investigate volunteer fundraising opportunities in addition to those already existing | 1. Continue the development and evaluation of the Fall Plant Sale  
2. Spring (woody) plant sale  
3. A plant sale retail outlet featuring much-desired or difficult to acquire plants (perhaps to be located at Grant House?) | Ongoing / Director, Arb Manager, Vol Coordinator  
Medium / Vol Coordinator  
Long / Director; AMG |
3. Planning Principles

The Arboretum Master Plan, in general, embraces the planning principles as stated in the *University of Guelph Campus Master Plan* (2002). The Arboretum Master Plan includes the planning principles using these major categories: “environmental quality,” “spatial structure,” “project design,” “movement and associated systems,” “land locations” and “implementation.”

Within each of these categories there are headings under which recommendations are made with respect to the planning, design, development and management of the physical facilities, landscapes and natural areas of The Arboretum.

In this section of the Operational Plan the specific recommendations are addressed with respect to actions to be taken and the timeframe for those actions.

3. Planning Principles

3.1. Environmental Quality

3.1.1 Quality, Permanence and Economy
3.1.2 Environmental Responsibility
3.1.3 Celebrating Place
3.1.4 A Beautiful Landscape
3.1.5 Commemoration, Public Art, Display
3.1.6 Urban Integration

3.2. Spatial Structure and Fit

3.2.1 Consolidated Core
3.2.2 Landscape Structure
3.2.3 Fit with the Natural Landscape
3.2.4 Focal Spaces

3.3 Project Design

3.3.1 Preserve the Best, Remove the Worst, and Repair the Rest
3.3.2 Appropriate Relationships
3.3.3 Campus Safety
3.3.4 Barrier Free Design
3.3.5 Building Design

3.4 Movement and Associated Systems

3.4.1 Entry, Orientation, and Wayfinding
3.4.2 Transportation Emphasis
3.4.3 Pedestrian Paths
3.4.4 Road System
3.4.5 Service and Emergency Vehicles
3.4.6 Bicycles
3.4.7 Parking
3.4.8 Utilities
3.4.9 Waste Management
3.4.10 Arboretum Lighting
3.4.11 Exterior Campus Furnishing

3.5 Land Use Locations

3.5.1 Study/Learning and Communal Space
3.5.2 Outside Community Use
3.5.3 Maintenance Facilities
3.5.4 Non-Arboretum Use Areas
## 3.1 Environmental Quality

<table>
<thead>
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<tr>
<td><strong>P.P.3.1.1 Quality, Permanence and Economy:</strong> Life cycle costing</td>
<td>1. Follow philosophy that, “Within the constraints of fiscal reality, quantity should not compromise quality and that design cost decisions should be measured against the full life of a building or landscape rather than its construction alone. This implies a three-part commitment: first to high-quality design, construction and maintenance; second to eventual replacement of temporary facilities; and third to the planned renewal of aging and inadequate facilities.” (Campus Master Plan, 2002)</td>
<td>Ongoing / Director; Phys Res</td>
</tr>
<tr>
<td><strong>P.P.3.1.2 Environmental Responsibility:</strong> The Arboretum will build and renew buildings, infrastructure and landscapes in a manner that is land, energy, resource, and waste management efficient.</td>
<td>1. The University will extend its building condition audit program to The Arboretum and identify potential energy and water conservation strategies 2. Investigate the development and protection of a wildlife corridor between the Eramosa River and The Arboretum through the western edge of Victoria Road. 3. Develop a land management plan for the Nature Reserve, natural areas and the research collections</td>
<td>Short / Phys Res, Short / Interp, Medium / AMG, Ongoing / AMG</td>
</tr>
<tr>
<td><strong>P.P.3.1.3 Celebrating Place:</strong> The design of new projects will reinforce the character-defining elements that reflect the historical development of The Arboretum and the campus. The Arboretum will balance development and protection of places of value so that the traditional roots of the campus and its setting are clearly apparent within the context of a vital and current Arboretum environment.</td>
<td>1. Identify the character-defining elements 2. Develop a Landscape Maintenance policy that incorporates the preservation, adaptation and integration of places of value and incorporates different maintenance “zones” as identified in the AMP 3. Protect and improve the landscape structure</td>
<td>Short / AMG, Medium / Arb Manager, Ongoing / AMG</td>
</tr>
<tr>
<td><strong>P.P.3.1.4 A Beautiful Landscape:</strong> The landscape will be designed to unify the campus, stimulate social interaction, offer comfort and security, and reflect the environmental focus of the University.</td>
<td>1. Ensure that the diversity of landscape is maintained during the design of individual landscape projects 2. Develop a Landscape Maintenance policy that incorporates different maintenance “zones” as defined in the AMP</td>
<td>Ongoing / AMG, Medium / Arb Manager</td>
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## 3.2 Spatial Structure and Fit

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<td><strong>P.P.3.2.1 Consolidated Core:</strong> The first choice for locating primary academic, communal and support facilities will be within a 10-minute-diameter walking circle centred on the U of G Library</td>
<td>1. Further investigate the AMP recommendation that any future development of new academic, communal or other support facilities be at the western entrance to The Arboretum</td>
<td><strong>Long / Phys Res; AA&amp;D; AAG</strong></td>
</tr>
<tr>
<td><strong>P.P.3.2.2 Landscape Structure:</strong> The landscape will reinforce the spatial structure of The Arboretum, emphasizing the framework of roads, walkways and open spaces</td>
<td>1. Maintain the landscape structure established in the 1970 and 1986 Arboretum Master Plans and that has been adhered to in subsequent plantings</td>
<td><strong>Ongoing / Arb Manager; Asst Arb Manager</strong></td>
</tr>
<tr>
<td><strong>P.P.3.2.3 Fit With the Landscape:</strong> The Arboretum will strive to achieve a balance between traditional arboretum monoculture and ecological naturalization</td>
<td>1. In the development of landscape management plans and policies The Arboretum will recognize the ecological value of its forested areas and areas of remnant native vegetation and will preserve and manage these resources for education and research.</td>
<td><strong>Ongoing / AMG</strong></td>
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</table>
| **P.P.3.2.4 Focal Spaces:** Key focal spaces will be retained and further developed to provide identity and activity areas within The Arboretum | 1. In the development of landscape management plans and policies The Arboretum will recognize the existing “focal spaces”.
2. Future “focal spaces” identified in the AMP will be considered in any future planting plans | **Ongoing / Arb Manager** |

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### 3.3 Project Design

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| P.P.3.3.1 Preserve the Best, Remove the Worst, Repair the Rest:  
Project sites will be selected to preserve Arboretum assets, favour the repair of problem sites and avoid compromising good-quality buildings and landscapes | 1. Determine costs of renovating buildings identified in the AMP  
2. Develop an inventory of needs, ready to include building renovations in a Capital Campaign  
3. Renovate existing Arboretum buildings to enhance their effectiveness | Short / Phys. Res; Arb Manager  
Short/ Phys. Res; Director; AA&D  
Ongoing / Phys Res; AA&D; Director |
| P.P.3.3.2 Appropriate Relationships:  
Project sites will be selected to ensure the best functional and environmental relationships among related uses | 1. Evaluate the precincts of use type and intensity related to the three user groups (research, teaching, outreach) as presented in the AMP | Medium / AMG |
| P.P.3.3.3 Campus Safety:  
Buildings, landscapes and lighting must be designed and managed to promote personal safety | 1. Continue placement of emergency phones as required  
2. Consider safety as a design element in all collection, landscape, and built structure policies | Ongoing / Phys Res  
Short / AMG |
| P.P.3.3.4 Barrier-Free Environment:  
The University is committed to creating a barrier-free environment. Where this is not possible, the University will provide specific services to accommodate people with disabilities | 1. Examine the barrier-free characteristics of Arboretum buildings and grounds for improvement  
2. Add additional dedicated parking spaces for people with disabilities at the OAC Centennial Arboretum Centre and J.C. Taylor Nature Centre | Short / Phys Res; Arb Manager  
Medium / Phys Res; Arb Manager |
| P.P.3.3.5 Building Design:  
Building design must be of its time but take inspiration from the original older buildings. New buildings express their role as “University” buildings, make evident the activities occurring in them and support the larger structural patterns of The Arboretum | 1. Include “appropriate relationship with the landscape” into new design policies  
2. Consider the style, siting and function of buildings responding to the context of the specific location. The principles established by the Campus Master Plan shall serve as a guide to future building | Ongoing / AMG |
### 3.4 Movement and Associated Systems

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<tr>
<td>P.P.3.4.1 Entry, Orientation and Wayfinding: The University will seek ways to give The Arboretum a strong sense of identity, well-defined entrances and an easy sense of orientation</td>
<td>1. Develop the exit to College Avenue as the main Entrance/Exit to provide visibility and functionality for both the campus and community. This activity also includes signage and entrance/exit design and planting</td>
<td>Medium / Phys Res; AMG</td>
</tr>
<tr>
<td>P.P.3.4.2 Transportation Emphasis: The Arboretum will accommodate automobile use but promote a range of alternatives, including public transit, cycling and walking</td>
<td>1. Continue the increased emphasis on pedestrian and cyclist movement through the site and a decrease in vehicular traffic (see 3.4.3 and 3.4.4)</td>
<td>Ongoing / Phys Res; AMG</td>
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<tr>
<td>P.P.3.4.3 Pedestrian Paths: The pedestrian zone of The Arboretum will be expanded. The Arboretum will enhance the existing primary pedestrian system, and will improve and expand the secondary systems</td>
<td>1. Continue the existing trail system and expand information interpretive elements</td>
<td>Ongoing / Arb Manager; Ed Coordinator</td>
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<td>2. Evaluate proposal in the Campus Master Plan for a trail (outside The Arboretum) connecting the Village by The Arboretum with The Arboretum (see O.2.5.2)</td>
<td>Short/ Director; AA&amp;D</td>
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<tr>
<td>P.P.3.4.4 Road System: Arboretum roads will be reconfigured to enlarge the pedestrian zone and reduce pedestrian/vehicular conflicts</td>
<td>1. Follow-up on the proposed two-way entry exit roads: a) entrance/exit off College Avenue to serve the existing OAC Centennial Arboretum Centre and parking lot and the J.C. Taylor Nature Centre b) an improved multi-purpose road from East Ring Road would serve the Child-Care and Learning Centre, East Residence, Alumni House, the existing parking lots, the proposed future residential development indicated on the Campus Master Plan</td>
<td>Medium / Director; Arb Manager; AA&amp;D; Phys Res</td>
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<td>Long / Director; AA&amp;D; Phys Res</td>
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<tr>
<td>P.P.3.4.5 Service and Emergency Vehicles: Service and emergency vehicles will use The Arboretum road system where possible and will use mixed-mode pedestrian routes where road access is not available</td>
<td>1. Evaluate the existing service road network to determine its appropriateness in meeting the needs of The Arboretum for maintenance and servicing purposes (see Objective 2) 2. Assess service vehicle and emergency access along the proposed “Arboretum Promenade” (see Objective 2)</td>
<td>Short / Arb Manager; Phys Res</td>
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<td>Long / Phys Res; Arb Manager</td>
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<tr>
<td>P.P.3.4.6 Bicycles: The use of bicycles to access and move around The Arboretum will be encouraged</td>
<td>1. Review policies related to bicycle access on trails. 2. Work with the City to facilitate a bicycle path connection to the City bicycle route system</td>
<td>Short / Arb Manager</td>
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<td>Medium / Arb Manager; Phys Res</td>
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3.4 Movement and Associated Systems – continued

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| **P.P.3.4.7 Parking:** The University will provide parking within walking distance of the major facilities while favouring green space | 1. Evaluate the recommendations of the AMP and specifically address parking charges as a way to manage costs  
2. Develop a funding mechanism to add more barrier-free parking at the OAC Centennial Arboretum Centre and J.C. Taylor Nature Centre | Medium / AMG; Phys Res  
Medium / Director; AA&D; Phys Res |
| **P.P.3.4.8 Utilities:** The utility system must be upgraded and rationalized to promote economy and efficiency and to facilitate future development | 1. Maintain awareness of upgrades in services along Victoria Road and if appropriate, incorporate these into future Arboretum developments | Medium / Arb Manager; Phys Res |
| **P.P.3.4.9 Waste Management:** Arboretum staff will develop composting and recycling programs to reduce the waste stream to the University system and demonstrate the principle of environmental responsibility. Other technologies for waste management will be consistent with University systems | 1. Evaluate present waste management actions, specifically related to composting and recycling  
2. Include University standards in policies | Ongoing / Arb Manager; Phys Res  
Medium / Phys Res |
| **P.P.3.4.10 Arboretum Lighting:** Exterior lighting at The Arboretum will be at the major centres as outlined in Principle 13 (campus safety). Systems will conform to University standards | 1. Evaluate existing external lighting with respect to energy efficiency and effectiveness | Medium / Phys Res; Arb Manager |
| **P.P.3.4.11 Exterior Campus Furnishings:** The Arboretum intends to develop economical and comprehensive systems of visually co-ordinated and comfortable outdoor furnishings. Durability in function and attractive appearance under low-maintenance conditions are essential | 1. Review existing exterior furnishing design and maintenance costs to create guidelines for future furnishings | Ongoing / Arb Manager |
## 3.5 Land-use Locations

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</table>
| **P.P.3.5.1 Study/Learning and Communal Space:**  
The University intends to improve and expand spaces for individual and group study and learning distributed throughout the campus | 1. Investigate The Arboretum management of other University lands, namely Brown’s Woods and the Dairy Bush in the context of "living laboratory" concept presented in the AMP | Medium / AAG; AMG |
| **P.P.3.5.2 Research**  
As a principle purpose of the University, research facilities will be located both to encourage intra- and interdisciplinary contacts and to be associated with their related academic units | 1. Investigate the research infrastructure funding and other sources of funding to develop a new propagation facility at the R.J. Hilton Centre  
2. Investigate the potential for sharing a more serviceable and/or accessible location for propagation facilities for shared use with the University research community. | Long / AAG; AMG  
Long / AAG; AMG |
| **P.P.3.5.3 Outside Community Use:**  
Facilities that can be used by the general public will be distributed throughout the campus, usually in association with related academic units | 1. Continue serving as an important "public face" and providing opportunities for community use and support  
2. Continue to evaluate the effectiveness of providing opportunities for community use and support | Ongoing / Director; AA&D  
Ongoing / Director; AMG; AA&D |
| **P.P.3.5.4 Maintenance Facilities:**  
Facilities will be consolidated to rationalize the use of valuable Arboretum space, to improve communication between services and to facilitate user access | 1. Continue the centralized maintenance operations at the R.J. Hilton Centre  
2. Investigate further co-operation with Physical Resources | Ongoing / Arb Manager; Asst Arb Manager  
Short / Arb Manager; Phys Res |
| **P.P.3.5.5 Non-Arboretum Use Areas:**  
The integrity of Arboretum use, aesthetic quality and natural environment will be maintained and enhanced within the long-range master plan. Non-conforming uses should be phased out on a priority basis | 1. Investigate the potential shared use of the University nursery  
2. Investigate the recommendations of the AMP with respect to two decommissioned pieces of land within The Arboretum boundaries: a)”seal ponds”; b)”aviary” | Medium / Arb Manager; Phys Res  
Medium / Director; Arb Manager; Phys Res |
4. Operations and Staffing

4.1 Existing Operations

The following presents an overview of the existing Arboretum site and facilities. This overview provides a context to the existing costs of operating The Arboretum.

4.1.1 Site

The Arboretum area consists of the University lands immediately east of the core campus extending to Victoria Road. The Arboretum lands are crossed by two city arterial roads: College Avenue and Stone Road. There are approximately 165 hectares (408 acres) within the site area.

Most of The Arboretum study area is devoted to education and research. The area south of Stone Road is designated as a nature reserve and is used only for research, teaching and conservation purposes.

The major land uses for The Arboretum include collections and gardens, natural areas and developed areas or “centres.” Collections and gardens make up the largest area. There are more than 30+ collections of woody plants for academic and display purposes. Other landscaped areas include display gardens, memorial plantings and plantings that provide structure and form to The Arboretum.

The natural areas include the Nature Reserve located on Arboretum lands south of Stone Road and the more actively interpreted and managed areas of Wild Goose Woods and Victoria Woods. The natural areas of The Arboretum represent wetlands, wooded areas and other landscape types with natural values for education, research and conservation management.

The major developed areas include the OAC Centennial Arboretum Centre, which serves as the main facility for University and community users, and the R.J. Hilton Centre, which houses staff, research and propagation activities, and maintenance functions. The J.C. Taylor Nature Centre provides a base for environmental education activities.

4.1.2 Vehicular Access

The Arboretum road system includes a publicly accessible Arboretum Road and a number of service roads.

The Arboretum currently has 118 parking spaces, which are well-integrated into the landscape. The Arboretum lot has 82 spaces, and an additional 36 are located at five locations along Arboretum Road. Informal staff parking is available at the R.J. Hilton Centre.

As with the entry road, paved surfacing is deteriorating and requires constant patching. The Arboretum pays a fee to Parking Services in lieu of Parking Services charging visitors directly to park in The Arboretum parking lots.

4.1.3 Pedestrian Access

The Arboretum has an extensive internal trail system. Nearly 10 km of trails provide for interpretive, recreational and functional uses. The Arboretum’s formal trails are currently limited to the section between College Avenue and Stone Road where public use is encouraged. Surfacing materials include stone dust, wood chips, turf and boardwalk. The Arboretum Centre access walk is asphalt paving.

4.1.4 Buildings

The Arboretum has three major buildings or building complexes. They are the OAC Centennial Arboretum Centre (with the Hales-McKay Memorial Shelter), the R.J.
Hilton Centre (which consists of the main building with offices, a plant cold-storage facility and workspace; the propagation facilities, including two greenhouses with potting shed; two drive sheds; a shade house; a lath house; and three poly houses) and the J.C. Taylor Nature Centre. There is also an Information Kiosk located on Arboretum Road at the west entrance.

4.1.5 Collections

A collection is a planted grouping of plants based on taxonomic relationships, form or function. The Arboretum has more than 30+ collections of native and introduced species with some 1,700 types of trees and shrubs, as well as many herbaceous species. These collections have been classified as research collections and display collections. The Arboretum collections require ongoing maintenance, assessment and development.

4.1.6 Gardens

Both cultural or traditional gardens and environmental demonstration gardens have been developed at The Arboretum. The cultural gardens display classical garden forms. The environmental gardens demonstrate ecologically friendly methods and plant types for use in private home grounds or other landscapes.

4.2. Activities Related to Operations

4.2.1 Education

The Arboretum has an extensive educational program with 35 environmental education workshops being offered in 2003-04, attended by 534 participants. Gross revenue generated from these educational activities was $15,000. In the last three years 47 different kinds of workshops were offered. Arboretum interpretive staff are also involved with offering tours specific to course instructor needs in landscape architecture, fine art, botany, environmental biology, ornithology, herpetology and land resource science.

Tours of The Arboretum collections and gardens are offered by volunteer docents. Volunteers also host “Sundays at the Nature Centre.”

In addition to environmental education workshops The Arboretum offers Children’s Theatre twice a year (November and February) that is attended by the public and local school groups.

4.2.2 Research

By increasing specific faculty activity in the staffing structure, specifically a 30% curatorial and a 10% research coordination position, the research operations of The Arboretum will be built up and other faculty will be encouraged to carry out research in The Arboretum. Arboretum research will also be encouraged through support from the proposed research endowment (see 5.3 Organizational Chart 2006 – 2011, page 40 and C.P. 5.4.1, page 41).

The Arboretum is currently carrying out two research projects under the director, Professor Alan Watson: a) Ontario Tree Atlas Project (OTAP); b) Elm Recovery Project (ERP). Arboretum facilities and staff are involved with both of these projects.

Rob Guthrie (Research & Services Assistant Coordinator) co-ordinates the OTAP and maintains the data collected on tree distribution and relative abundance. Over 1300 volunteers surveyed 100 square kilometre areas throughout Ontario. This data is being compiled to produce detailed distribution maps for 111 species found in Ontario.

The ERP is research project that also utilizes volunteers to locate Dutch elm disease (DED) resistant white elms (Ulmus
americana) in Ontario. Cuttings are taken from potentially DED resistant elms and grafted to root stock in The Arboretum nursery. These grafted trees are being tested for DED and promising grafts are moved to the elm seed orchard in the Gene Bank collection. The key Arboretum staff member involved in the ERP is Sean Fox (Assistant Arboretum Manager).

4.2.3 Maintenance and Development

Arboretum staff is responsible for all of the ongoing maintenance of the site and a portion of that which is required for the built facilities.

Building maintenance such as housekeeping, electrical and plumbing and safety related repairs are carried out by other University personnel. Costs of improvements to building elements such as painting and carpets have been the responsibility of The Arboretum.

Localized repairs, grading of gravel roads and snow removal from all roads have been carried out by another University unit (Physical Resources).

Snow removal of pedestrian access to Arboretum buildings is carried out by Arboretum staff. Grass cutting, weeding, pruning, watering, protection, tree felling, signage and road painting are also carried out by Arboretum staff.

Plant collection planning and development, plant propagation and purchasing, and planting are carried out by Arboretum staff.

4.3 Staffing

As a first step in implementing an Operational Plan to achieve the vision of the Master Plan, a new organizational structure was devised and is being implemented, as shown on p33. This aligns the reporting against the mandates of the Arboretum. It also engages part-time educational and research coordinators, who will be responsible for a number of the actions set out in this Operational Plan.
4.3 Organizational Chart:

2006 – 2011
Silver linden (Tilia tomentosa) and dedication bench in the World of Trees Collection: Photo by A. Watson
5. Sustainable Funding

5.1 Base Funding

The Arboretum Master Plan Steering Committee recognized that the activities presently carried out by The Arboretum are central to its Mission and that in order to develop, maintain and manage Arboretum assets and programs in the long term additional funding is required.

A financially healthy Arboretum will encourage the support of donors and funding agencies to increase their financial commitment to The Arboretum. Equally important is that a financially healthy Arboretum will demonstrate an institutional commitment that will give confidence to new donors and new funding agencies to support the ongoing activities and the visions presented in The Arboretum Master Plan.

The Arboretum Master Plan points to the need for sustainable funding as one of its Key Issues.

As a consequence, prior to the completion of this Operational Plan, Ms Pam Healey, AVP (development) and a member of the Arboretum Planning Committee, carried out a feasibility study for fund-raising, which she reported to the President.

Her recommendations included enhanced communications, increased annual fundraising, development of a list of projects suitable for OAC reunion class gifts, assigning a priority to developing the College Avenue entrance, and other items which have been captured in this Plan. In the longer term, the recommendation is to “incorporate Arboretum projects into the next major University-wide campaign.”

5.2 Increases in Income Generation

Consistent with the Healey research, it is intended to increase promotion and marketing, focused on increasing facility rentals and educational program attendance. A contractually appointed, self-funding Events Manager will be hired to develop and organize additional income generating Arboretum related activities.

Key Outcomes

- Clear staff roles with respect to education, research and outreach
- Expanded curatorial activity
- Increased special events and increased revenues
- Higher profile for The Arboretum
- Participation in the next University Capital Campaign to raise funds for capital projects identified in the Arboretum Master Plan

AMP Key Issues Addressed

2. The nature and focus of The Arboretum’s future role within the University and the City, including its stature in the international Community.

3. The need for sustainable funding to develop, maintain and manage
Arboretum assets and programs in the long range.

4. A lack of awareness of the resources available at The Arboretum to support research, education and other needs.

6. The need for partnerships with academic units, researchers, industry, government, the community and others to achieve long-term objectives.

7. An aging infrastructure that requires immediate attention.

**Potential Performance Measures**

- Level of ongoing maintenance and development of the site
- Level of curatorial activities; quality of plant collection databases
- Number and quality of special events and activities
- Level of annual revenues
- Participation in the next University Capital Campaign

*Scarlet oak (Quercus coccinea) and verge bed plantings in the OAC '56 Park in the Garden. Photo by A. Watson*
### 5.2 Sustainable Funding Strategy

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Action</th>
<th>Timeframe / Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.F.5.2.1 Develop an MTCU base budget that supports sustained core Arboretum activities</td>
<td>1. Periodically review and adjust the Arboretum MTCU base to appropriately support the required complement of staff</td>
<td>Ongoing / OAC Dean; Director</td>
</tr>
</tbody>
</table>
| S.F.5.2.2 Implement a new Organizational Chart | 1. Reflect the AMP emphasis on education, research and outreach  
  2. Ensure succession of expertise  
  3. Develop an Arboretum Manager position  
  4. Develop an Assistant Arboretum Manager position  
  5. Add a 30% faculty curator position  
  6. Add a 10% faculty research coordinator position | Short  
  Short  
  Short  
  Short  
  Short  
  Short  
  All of the above / OAC Dean; Director |
| S.F.5.2.3 Investigate and develop an expanded events calendar | 1. Hire a contractually appointed Events Manager  
  2. Develop an aggressive on-going promotion and marketing | Medium / Director  
  Medium / Marketing Coordinator |
| S.F.5.2.4 Develop a major Capital Campaign | 1. Identify from the Arboretum Master Plan capital projects to support (see C.P.5.3, page 39)  
  2. Develop and test a case study and campaign plan for support of the identified fundraising needs  
  3. Recruit volunteer leadership  
  4. Preparation of campaign plan implementation  
  5. Implement the campaign plan | Short / Director; AA&D  
  Short / AA&D  
  Short / AA&D; Director  
  Medium / AA&D; Director |
## 5.3 Capital Projects Identified from the Arboretum Master Plan

This table identifies the key capital projects included in the Master Plan which was accepted by the Board of Governors; these will be further researched and prioritized, and where appropriate included in the next University Capital Campaign.

<table>
<thead>
<tr>
<th>Capital Project</th>
<th>Strategic Intent</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.P. 5.3.1 Research Endowment</td>
<td>Annual income generated (~$40K) will support faculty research within The Arboretum thereby fostering sustainable, collaborative research</td>
</tr>
<tr>
<td><strong>C.P. 5.3.2 OAC Centennial Arboretum Centre</strong>&lt;br&gt;Electrical power upgrade&lt;br&gt;Air conditioning&lt;br&gt;Carpet&lt;br&gt;Parking lot</td>
<td>Enhances the ability for The Arboretum to raise funds through rentals for conferences, meetings, weddings and special events. Presents the facility as a high quality, preferred site for patrons</td>
</tr>
<tr>
<td><strong>C.P. 5.3.3 College Avenue Entrance and Exit</strong>&lt;br&gt;Sign&lt;br&gt;Widen and pave road, gravel</td>
<td>Provides The Arboretum with a “sense of entrance” from a public road (College Avenue). The location is accessible from a major City artery (Victoria Road). Makes the site easier to find and enhances income generating uses</td>
</tr>
<tr>
<td><strong>C.P. 5.3.4 Promenade Linking the O.A.C. Centennial Arboretum Centre to west entrance</strong>&lt;br&gt;Asphalt removal and disposal&lt;br&gt;Excavation&lt;br&gt;Improve base course&lt;br&gt;Subdrains&lt;br&gt;Walkway; Bikeway; Tree planting</td>
<td>Provides an effective connection to the core campus of the University. Removal of vehicles would improve the quality of The Arboretum environment and provide a combination walkway and bikeway that extends the experience of Reynolds Walk into the site</td>
</tr>
<tr>
<td><strong>C.P. 5.3.5 “Alumni Plaza”</strong>&lt;br&gt;Site preparation and repair&lt;br&gt;Plaza paving&lt;br&gt;Steps, benches and other fixtures&lt;br&gt;Gate feature and lighting&lt;br&gt;Tree planting and soft landscape</td>
<td>Further enhances the connection between the Campus and The Arboretum.</td>
</tr>
<tr>
<td><strong>C.P. 5.3.6 Link to Reynolds Walk</strong>&lt;br&gt;Site preparation; Walkway; Roadway&lt;br&gt;Parking adjustments and tree planting&lt;br&gt;Miscellaneous signage</td>
<td>Further enhances the connection between the Campus and The Arboretum</td>
</tr>
<tr>
<td><strong>C.P. 5.3.7 Tomorrow’s Garden</strong></td>
<td>An important addition to the environmental education program. Builds upon the existing Gosling Wildlife Gardens and showcases transferable sustainable, urban gardening practices. Includes an endowment to cover staffing costs</td>
</tr>
<tr>
<td><strong>C.P. 5.3.8 R.J. Hilton Centre / Propagation centre facilities</strong>&lt;br&gt;R. J. Hilton Centre renovations</td>
<td>The propagation of plants is a central, ongoing activity that requires effective facilities. R.J. Hilton Centre upgrades or use of facilities elsewhere, on main campus, will upgrade research and service</td>
</tr>
</tbody>
</table>
### 5.3 Capital Projects Identified from the Arboretum Master Plan (continued)

<table>
<thead>
<tr>
<th>Capital Project</th>
<th>Strategic Intent</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.P. 5.3.9 Grant House Harrison House (Heritage House) Renovation Retrofit house, grounds and garden development (see O.2.1.5)</td>
<td>Serving as a base for allied organizations and special amenities this building would increase the outreach capacities. Funding of the operation and management would be externally and/or community-based. Activities within the building would provide financial support to The Arboretum. As Harrison House is adjacent to the R.J. Hilton Centre it is easily linked to facilities and activities at the R.J. Hilton Centre such as the greenhouse, propagation facilities and educational activities.</td>
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</tbody>
</table>

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Arboretum Operational Plan September 2006 final updated 2009 0430.doc  
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