



Media Release: Friday, February 19, 2016, 4:30 p.m.

Regional Municipality of Waterloo

Administration and Finance Committee

Agenda

Tuesday, February 23, 2016

Approximately 12:00 p.m. (Immediately following Planning and Works Committee)

Regional Council Chamber

150 Frederick Street, Kitchener

-
- 1. Declarations of Pecuniary Interest under the “Municipal Conflict Of Interest Act”**
 - 2. Delegations**

Consent Agenda Items

Items on the Consent Agenda can be approved in one motion of Committee to save time. Prior to the motion being voted on, any member of Committee may request that one or more of the items be removed from the Consent Agenda and voted on separately.

- 3. Request to Remove Items from Consent Agenda**
- 4. Motion to Approve Items or Receive for Information**
- 4.1 [COR-FFM-16-02](#), LEED Designations Update (For Information) 3**

Regular Agenda Resumes

- 5. Reports**
- 5.1 [PDL-CPL-16-08](#), 2016 Community Environmental Fund Grants 8**

Recommendation

That the Regional Municipality of Waterloo approve project funding allocations totalling \$84,355 from the Community Environmental Fund to support the Environmental Stewardship projects described in Attachment 1 of Report PDL-CPL-16-08, dated February 23, 2016.

6. Information/Correspondence

6.1 Council Enquiries and Requests for Information [Tracking List](#) 25

7. Other Business**8. Next Meeting – March 22, 2016****9. Adjourn**



Report: COR-FFM-16-02

Region of Waterloo
Corporate Services
Facilities and Fleet Management

To: Chair Sean Strickland and Members of the Administration and Finance Committee

Date: February 23, 2016

File Code: A02-30

Subject: LEED Designations Update

Recommendation:

For Information

Summary:

Nil

Report:

Background

Leadership in Energy and Environmental Design (LEED) is an internationally recognized and renowned rating system for green buildings in 150 countries. The Canada Green Building Council (CaGBC) and the LEED Canada Rating System have contributed to sustainable Canadian architectural design and urban landscape development, helping redefine Canadian living and working spaces. Since 2004, the CaGBC has registered over 5,000 LEED buildings in Canada, the second highest number in the world. (www.cagbc.org)

In 2005, the Region of Waterloo (Region) adopted a minimum sustainable design and construction standard of LEED™ Silver for new Regional facilities with over 500 m² (5,400 ft²) of occupied space (Report CR-FM-05-004, April 20, 2005). Since then, the Region has achieved LEED designations for various building locations across the spectrum of services. This report is intended to provide an update regarding the ongoing efforts and successful achievement of LEED designations for Regional buildings over the past 10 years.

LEED Building Highlights

The LEED rating system has set high expectations on how sustainable buildings should be constructed, encompassing key themes of energy management, water savings, CO₂ emission reductions, reduced landfill waste, material selection and occupant comfort.

Examples of some features that the Region has included with its recent LEED buildings include:

Courthouse Renovation, 20 Weber St. East, Kitchener

- Energy consumption was reduced by thirty seven percent through the implementation of LED lighting fixtures/controls; new spray foam insulation throughout and the use of efficient mechanical equipment.
- Low Volatile Organic Compound (VOC) emitting glues, caulking, paints, and carpets were used in the construction of this facility, leading to improved air quality for occupants.
- Existing furniture was re-used wherever practical for cubicles and offices, resulting in both financial and environmental benefits.

Police North Division, 45 Columbia Rd., Waterloo

- A rainwater harvesting system was installed to supply water to wash vehicles and provide flushing water, reducing the use of treated water.
- A 43kW photovoltaic system is expected to generate approximately 47,000 kWh per year equivalent to powering 4 homes for a year.
- A portion of the old La-Z-Boy building on site was re-used saving an estimated \$800,000 in construction costs.
- To offset project costs and address environmental concerns, twenty percent of the construction materials contained recycled content.
- A green cleaning program is used throughout the building, using products that are less harmful to the environment.

GRT Maintenance Facility, 85 Chandler Dr., Kitchener

- The combination of storm water infiltration ditches and a Stormceptor (storm water quality treatment system) slows down storm water drainage and removes pollution such as suspended solids from the storm water. This helps protect waterways downstream from contaminated storm water.

- Includes a 287kW photovoltaic system, expected to generate approximately 315,000 kWh annually which is equivalent to powering 26 homes for a year.
- Water use reductions have been achieved through the implementation of low flow fixtures throughout the facility.
- A water harvesting system uses rainwater captured from the rooftop to supply a portion of the bus wash water used at the site, making wise use of otherwise run-off water and reducing the consumption of treated water.
- Thirty six percent of the construction materials contained recycled content, reducing the amount of material being landfilled and saving costs.
- Low VOC emitting glues, caulking, paints, and carpets were used in the construction of this facility, leading to a healthier work environment.

Region of Waterloo International Airport - Combined Service Maintenance Facility,
75 New Germany Lane, Breslau

- The facility was designed to consume 37% less energy than required by the Model National Energy Code for Buildings (MNECB). Various features were included to achieve these savings, with such examples as:
 - High efficiency Energy Recovery Ventilators (ERV) in the bay areas.
 - Condensing boilers and gas-fired unit heaters provide efficient hot water heating and space heating.
 - Occupancy and daylight sensors in the office space.
- Follow up measurement and verification by a consultant indicated that the facility is operating more efficiently than comparable non-LEED buildings. It is approximately 44% more energy efficient than required by the MNECB for buildings in Canada and better than forecasted in the design phase. Annually, this facility design results in annual energy cost avoidance of \$7,300 (2013).
- Water efficient landscaping was implemented not requiring irrigation, avoiding new draws on water consumption with the new building.
- This facility has been constructed using 35% materials manufactured regionally, contributing to a strong regional economy.

Region of Waterloo LEED Building Summary

The Region's efforts have resulted in 11 facilities certified to LEED Silver or higher, and contributed to an estimated annual energy cost avoidance of \$2.1 million/year. Of particular note, where feasible and additional costs were justified or provided benefit, the Region has exceeded the set standard of LEED Silver by targeting and achieving LEED Gold designation. Approximately half of the designations received by the Region are at the Gold level.

The table below outlines the timing, facility and designation levels achieved since 2005.

Year	Location	LEED Level
2015	Courthouse, 20 Weber St. E.	Gold (Pending)
2015	GRT Maintenance Facility, 85 Chandler	Gold
2014	WRPS North Division	Gold
2013	Sunnyside Supportive Housing & Wellness Centre	Silver
2012	Region of Waterloo International Airport – Combined Service Maintenance Facility	Silver
2012	Christopher Children's Centre	Gold
2012	Waterloo Region Museum	Silver
2011	Waterloo Landfill South Workshop	Silver
2011	Mannheim Water Treatment Plant Expansion	Silver
2009	WRPS Investigative Building	Gold
2005	Paramedic Services Fleet Centre	Gold

LEED has been instrumental in providing a framework of tangible construction requirements in Ontario, raising the bar and ensuring that building construction practices are in line with sustainable processes. The Region's early involvement has contributed to this level of success, encompassing both new buildings and major renovation projects. Results of the Region's commitment have led to lower lifecycle operating costs, environmental benefits and more productive workplaces.

Corporate Strategic Plan:

Incorporating LEED requirements to construction projects supports Focus Area 3, Environment and Sustainable Growth.

Financial Implications:

The administrative costs associated with having each building certified has varied from project to project depending on size and complexity. On average, those costs range from \$5,000 - \$10,000 and include third party reviews to satisfy the CaGBC that LEED requirements are being met.

The incremental design and construction cost to achieve LEED certification varies from project to project and is roughly 3-4% of the total construction value. The additional costs to achieving LEED certification do result in direct benefits to the Region, both tangible and intangible:

- Energy conservation projects are chosen for a payback of roughly five years or less in line with the Region's Corporate Energy Management Plan. Beyond five years, the implemented technology continues to offset energy use. As of 2015, the Region's energy management projects installed since 2005 offset approximately \$2.1 million each year that would have otherwise needed to be spent on building operations.
- LEED certification also leads to environmental and occupant wellbeing related benefits. Examples include better indoor air quality for staff and tenants through use of low VOC carpets, paints and furniture; reduced local heat island effect with the appropriate use of roofing materials; less waste generated throughout the construction cycle; and, support of the regional economy through the use of local building supplies.

Other **Department Consultations/Concurrence:** Nil

Prepared By: Richard Schafer, Manager, Project Management

Approved By: Craig Dyer, Commissioner, Corporate Services/Chief Financial Officer



Report: PDL-CPL-16-08

Region of Waterloo
Planning, Development and Legislative Services
Community Planning

To: Chair Sean Strickland and Members of the Administration and Finance Committee

Date: February 23, 2016 **File Code:** D03-80/CEF

Subject: 2016 Community Environmental Fund Grants

Recommendation:

That the Regional Municipality of Waterloo approve project funding allocations totalling \$84,355 from the Community Environmental Fund to support the Environmental Stewardship projects described in Attachment 1 of Report PDL-CPL-16-08, dated February 23, 2016.

Summary:

The Community Environmental Fund was established by Regional Council in October 2011. Please see report CR-FM-11-022/P-11-085.

The Community Environmental Fund provides financial support to a wide variety of stewardship projects that fall within the following five categories:

1. Enhancement and restoration of natural areas
2. Naturalization projects
3. Acquisition of ecologically significant natural areas
4. Public education and awareness initiatives on some aspect of environmental stewardship
5. Research related to stewardship of natural areas

Each successful project must also fulfill at least two criteria within its category.

The Community Environmental Fund was widely advertised in the fall of 2015, and the application package made available on the Regional website. By the January 7, 2016 deadline, 25 diverse proposals were received. Staff have followed up with applicants to

further clarify details of their proposals, and ensure that individual cost items are appropriate and comply with the Council-approved guidelines for applicants. Staff is now recommending that the Region approve funding of \$84,355 for the twenty projects listed in summary form in Attachment 1.

The recommended projects would involve a wide variety of community stakeholders and cover a range of environmental activities:

- eight schoolyard greening projects would further the Region's skin cancer prevention program and enhance the tree canopy in our urban neighbourhoods
- eight projects would occur within Regionally-designated Environmentally Sensitive Policy Areas (ESPAs)
- six projects, in addition to the schoolyard projects, would involve citizens of all ages in learning about some aspect of environmental stewardship
- five projects, in addition to the schoolyard projects, can enhance community capacity to deal with various kinds of environmental issues
- four projects would help control invasive non-native species in the Dumfries Carolinian and Blair-Bechtel-Cruickston Environmentally Sensitive Landscapes (ESLs) on the **rare** Charitable Research Reserve, and in the Township of Woolwich
- three projects, in addition to the schoolyard projects, would in whole or in part involve a significant number of the Region's citizens in the planting of trees
- three projects are being undertaken by Area Municipalities
- two projects would assist local land trusts - **rare** Charitable Research Reserve and the Branchton Village Land Trust
- one project would fund research into Endangered and Threatened Species bat populations in an urban ecosystem

The recommended allocations would significantly assist with a variety of environmental projects some of which might not have been considered or which would have been initiated at a smaller scale without the assistance of the Community Environmental Fund. The recommended Regional grants totalling \$84,355 would be leveraged by \$413,444 in cash and/or in-kind contributions from the applicants. Based on the project applications, staff has calculated that for every dollar of the recommended \$84,355 in grants, an additional \$4.90 in cash and in-kind would be invested by the proponents.

Report:

The Community Environmental Fund was established by Regional Council on October 26, 2011 (Report CR-FM-11-022/P-11-085) as an action under the Region's former 2011-2014 Strategic Plan "Develop and implement an integrated funding program to support community-based environmental initiatives." The Community Environmental Fund welcomes applications for environmental projects falling within the following eight categories:

Stewardship projects (funded in the approved 2016 Regional Budget)

1. Enhancement and restoration of natural areas
2. Naturalization projects
3. Acquisition of ecologically significant natural areas
4. Public education and awareness initiatives on some aspect of environmental stewardship
5. Research related to stewardship of natural areas

The following are eligible to apply for funding from the Community Environmental Fund:

- Private landowners (except commercial or business owners) with respect to lands within Waterloo Region.
- Non-profit clubs, associations, organizations, co-operatives, or land trusts based in the Region of Waterloo
- Schools, universities, colleges and students at accredited educational institutions in Waterloo Region.
- Area Municipalities, the Grand River Conservation Authority, or Regional departments

In the case of schools and government agencies, the projects must be demonstrated to promote Regional interests such as enhancing natural heritage features, increasing the tree canopy, providing shade on schoolgrounds in order to prevent skin cancer, and promoting public awareness and support for various aspects of environmental stewardship.

The Community Environmental Fund was widely advertised in the fall of 2015 to attract proposal submissions. The application package was also made available on the Regional website. By the January 7, 2016 deadline, 25 proposals were received from a wide variety of local applicants. Staff has reviewed the applications based on their fit with the eligibility criteria for the Fund. Where necessary, staff has followed up with applicants to clarify that component cost items are appropriate and consistent with criteria approved by Council for applicants in general, and schoolyard greening projects in particular. Staff recommend that \$84,355 be allocated to the twenty applications listed below. Brief summaries of each project may be found in Attachment 1.

Applicant	Project	Amount
1. City of Waterloo	Laurel Creek Citizens' Community Planting Project	\$4,400
2. rare Charitable Research Reserve	Restoration of Plantations to Enhance Woodland Biodiversity	\$13,102
3. Mackenzie King Public School	Naturalization and Tree Planting programme	\$3,000

Applicant	Project	Amount
4. Baden Public School	Baden Public School Outdoor Learning Grounds	\$ 3,000
5. City of Kitchener	Bats in Urban Areas Study	\$9,300
6. Grand River Conservation Authority	Invasive Species Control at the F.W. Dickson Wilderness Area	\$5,125
7. Branchton Village Land Trust	Woodland Management on Branchton Village Land Trust Lands	\$ 1,130
8. Waterloo-Wellington Science and Engineering Fair	Developing Environmental Advocates and Researchers (DEAR) Project	\$1,000
9. Sandhills Public School	Sandhills Public School Outdoor Learning Space Enhancements	\$2,000
10. Forest Glen Public School	Forest Glen Public School "Greening the Glen" Project	\$2,000
11. Chalmers Street Public School	Chalmers Street Public School Outdoor Learning Centre	\$3,000
12. Waterloo Region Shade Working Group	2016 Shade Forum – (Category 4)	\$1,180
13. 10,000 Trees/10,000 Forests Launch event	10,000 Trees	\$4,250
14. Ayr Public School	Ayr Public School Greening Project	\$3,000
15. Dr. Kevin Stevens, Wilfrid Laurier Biology Department	Assessment of Vegetation Communities at Kossuth Swamp	\$7,502
16. Waterloo Stewardship Council	Oak Savanna Restoration Projects	\$4,100
17. Preston Public School	"PPS Panda's Greening Initiative"	\$3,000
18. Township of Woolwich	TWEEC Phragmites Control Project	\$ 9,006
19. Jacob Hespeler Secondary School	Greenhouse Upgrade	\$2,260
20. Moffat Creek Public School	Moffat Creek Public School Wetland Learning grounds	\$3,000
Total		\$84,355

The recommended funding levels for the twenty projects range from \$1,000 to \$13,102. The three largest recommended grants are for \$13,102 to the **rare** Charitable Research Reserve for its plantation restoration project, \$9,300 to the City of Kitchener urban bat habitat survey and \$9,006 to the second phase of the Township of Woolwich Environmental Enhancement Committee (TWEEC) Phragmites control project.

The recommended grants will support a range of stewardship projects throughout the Region:

- eight schoolyard greening projects would further the Region's skin cancer prevention program and enhance the tree canopy in our urban neighbourhoods
- eight projects would occur within Regionally-designated Environmentally Sensitive Policy Areas (ESPAs)
- six projects, in addition to the schoolyard projects, would involve citizens of all ages in learning about some aspect of environmental stewardship[
- five projects, in addition to the schoolyard projects, can enhance community capacity to deal with various kinds of environmental issues
- four projects would help control invasive non-native species in the Dumfries Carolinian and Blair-Bechtel-Cruickston Environmentally Sensitive Landscapes (ESLs), on the **rare** Charitable Research Reserve, and in the Township of Woolwich
- three projects, in addition to the schoolyard projects, would in whole or in part involve a significant number of the Region's citizens in the planting of trees
- three projects are being undertaken by Area Municipalities
- two projects would assist local land trusts - **rare** Charitable Research Reserve and the Branchton Village Land Trust
- one project would fund research into Endangered and Threatened Species bat populations in an urban ecosystem

Taken together, the proposed projects would involve hundreds of the Region's citizens of all ages and backgrounds. Not only would they foster a culture of sustainability and environmental stewardship, but they also have the potential to nurture new skills and develop community capacity.

The recommended allocations would significantly assist with a variety of environmental projects some of which might not have been considered or which would have been initiated at a smaller scale without the assistance of the Community Environmental Fund. The recommended Regional grants totalling \$84,355 would be leveraged by \$413,444 in cash and/or in-kind contributions from the applicants. Based on the project applications, staff has calculated that for every dollar of the recommended \$84,355 in grants, an additional \$4.90 in cash and in-kind would be invested by the proponents.

Conclusion and Next Steps

In the spring of 2015, staff reviewed previously approved grants, and noted that several

had neither proceeded nor requested extensions. Staff sent a letter to each applicant requesting confirmation that the application was still active. As a result, one grant approved in 2014 was canceled, and \$2,000 was made available for future Community Environmental Fund projects. Staff will follow up again this spring with any remaining inactive grants made prior to 2016.

In reviewing the applications, staff has followed up with applicants to further clarify details of their proposals, and ensure they are in the appropriate category and that individual component items in the proposed project budgets are appropriate and consistent with the guidelines earlier approved by Council for applications in general and for schoolyard greening projects in particular. Subject to approval of the recommended allocations by Regional Council, successful recipients would receive formal letters specifying the total amount of their grant and the items for which it may be used. Where appropriate, some of those letters would be accompanied by an agreement, prepared with the assistance of Legal Services, by which the recipients commit to abide by the terms and conditions of the grant. Before payments are authorized, staff would continue to verify that the agreed upon works have been accomplished by reviewing brief reports completed by the recipients, conducting site inspections where necessary, or receiving copies of studies or research.

Staff also recommend that the five applications described in Attachment 2 not be funded at this time. All are interesting projects that could benefit the community in different ways, but it is staff's opinion that they do not qualify under the applicable guideline. Two projects would have been more suitable for the Sustainability Stream of the Community Environmental Fund which has not been funded since 2013. One is a second phase of a project funded in 2015 which has yet to submit invoices for any phase one project components. A fourth is a research proposal that in the opinion of staff is very academic and has insufficient practical and spatial application. The fifth project needs to be better scoped and costed. Consequently, it is recommended that they not be funded at this time.

Area Municipal Consultation/Coordination

The application package was circulated to all Area Municipalities when the 2016 programme was first announced. The Cities of Kitchener and Waterloo and Townships of Woolwich have all submitted applications for 2016 funding.

Corporate Strategic Plan:

This initiative supports Focus Area 3 – Environment and Sustainable Growth, and specifically Strategic Objectives 3.5 (Preserve, protect, and enhance green space, agricultural and environmentally sensitive lands, and Regionally-owned forests) and 3.6 (Improve environmental sustainability and livability in intensifying urban and rural settlement areas).

Financial Implications:

The Region's approved 2016 budget for Planning, Development and Legislative Services includes \$175,000 for new Environmental Stewardship projects to be funded from the property tax levy. The recommended allocations of \$84,355 would be funded from this provision and be leveraged by \$413,344 in cash and/or other in-kind contributions from the applicants. The balance of funding for Environmental Stewardship projects are expected to be made available for other environmental initiatives approved by Council later this year.

Other Department Consultations/Concurrence:

Corporate Services staff assist with the administration of the Community Environmental Fund.

Attachments:

Attachment 1 - Community Environmental Fund Stewardship Projects Recommended for Approval

Attachment 2 - Community Environmental Fund Applications Not Recommended for Approval

Prepared By: Chris Gosselin, Manager of Environmental Planning and Stewardship

Approved By: Rob Horne, Commissioner, Planning, Development and Legislative Services

Attachment 1 - Stewardship Grants Recommended For Approval – February 23, 2016**Project
Number****2016-01 Laurel Creek Citizens' Community Planting Project – (Category 1) – \$4,400**

The Laurel Creek Citizens' working group has collaborated with the City of Waterloo since 2000 to host community planting events to create wooded riparian buffers along Laurel Creek between the Grand River Conservation Authority's Laurel Creek Reservoir and Columbia Lake on the University of Waterloo North Campus. The current year's project builds on previous projects to naturalise a 30 metre buffer along the creek within the Environmental Reserve of the University. Apart from the valuable stream corridor re-vegetation of the 2016 project, there will be an educational component for youths and adults that will increase public awareness about urban watercourses by better understanding the connection between stormwater, riparian buffers, and the health of streams receiving urban drainage. This will be accomplished using interactive models, games, aerial maps, and explaining the role of benthic invertebrates which live in the streams and serve as indicators of aquatic habitat quality. This project will be complemented by other planting projects in the vicinity funded by other sources. The total value of the project including in-kind contributions is \$9,100. It is recommended that up to \$4,400 be allocated to the City of Waterloo to cover the costs of purchasing approximately 500 native trees and shrubs for the event.

2016-02 Restoration of Plantations to Enhance Woodland Biodiversity at the *rare* Charitable Research Reserve – (Category 1) – \$13,102

Approximately 18.5 hectares of the *rare* Charitable Research Reserve property in Blair consists of plantations which were planted prior to the acquisition of the lands by the charity. Over the decades, they have received little ongoing maintenance, and are now dense overgrown monocultures with little regeneration of native trees, shrubs, and herbaceous woodland plants. The Environmental Management Plan calls for these features to be restored to more natural woodland habitat diversity by tree-harvesting and other management techniques. The first step is to thin the canopy of over-crowded plantations and remove trees affected by canker in the Black Walnut plantation. It is also proposed to train *rare* staff in the operation of chain-saws and tree-felling techniques in order to build internal capacity to manage woodlands on an ongoing basis. Most of the heavy work of thinning plantations will be contracted out to a professional forestry firm. At this time, it is not known whether this will generate revenue from the sale of harvested timber. When Community Planning staff have overseen similar operations in Regional Forests, revenues have been generated sufficient to offset most, if not all, of the costs. The total value of the project including in-kind contributions is \$32,013. It is recommended that up to \$13,102 be allocated to the *rare* Charitable Research Reserve for the Plantation Restoration Project consisting of \$1,250 to the to cover the cost of purchasing seeds and

plants to be used in the restoration of the plantations, \$2,345 to purchase tools, chainsaws, and personal safety equipment for the project, and up to \$8,000 to cover up to 50% of the net cost of carrying out the plantation thinning.

2016-03 Mackenzie King Public School Naturalization and Tree Planting Program – (Category 2) – \$ 3,000

The Mackenzie King Public School Parent Council and school staff are seeking to improve tree coverage and naturalise a portion of the schoolgrounds. They see this as a tangible way to teach the students about the urban heat island effect. Moreover, a recent addition to the school, resulted in the removal of several trees, and other trees on the site are out-of-bounds to students due to supervision constraints. The school board has agreed to provide six trees in compensation for the trees removed, and the school council is seeking to add additional trees to enhance shade. It is also proposed to naturalise a quiet corner and add some play and teaching elements. The total value of the project including in-kind contributions is \$13,325. It is recommended that up to \$3,000 be allocated to the Mackenzie King Public School Naturalization and Tree Planting Project to purchase trees, tree planting accessories, and soil amendments.

2016-04 Baden Public School Outdoor Learning Grounds – (Category 2) – \$3,000

The Baden Public School is working to complete the revitalisation and naturalisation of the property it shares with the Township of Wilmot. The project will benefit the school most directly, and also the wider Baden community which accesses the schoolyard. The naturalized area will also teach the students about stewardship of trees and natural features. Once completed, the area will attract greater use during school day as well as at other times by community members who will enjoy the shaded seating areas and pathways. The total value of the project including in-kind contributions is \$. It is recommended that up to \$3,000 be allocated to the Project for the purchase of native trees.

2016-05 Bats in Urban Areas Study – (Categories 4, 5) – \$9,300

The rapid decline of bat populations due to virulent fungus infections has become a major cause of concern to biologists throughout the Western Hemisphere. Bats play an important role in the environment as they consume huge numbers of insects. This is increasingly important as mosquito-borne diseases are again becoming a significant public health concern. Bats are also useful “indicator species” of the health and resilience of natural ecosystems. By conserving their habitat, the integrity of ecosystems can be improved. The City of Kitchener is proposing to initiate a study of bat species in Environmentally Sensitive Policy Areas (ESPAs) and other natural areas within the City. An intriguing “citizen science” part of the project is to engage citizens in monitoring bat populations, improving bat habitat, and increasing public involvement in bat conservation. The project consists of two components, (1) detailed acoustic monitoring of bat habitat utilization, and (2) citizen

science data collection on bat presence/absence in natural areas within the City. Citizens will also build bat boxes to be installed in parks. The total value of the project including in-kind contributions is \$48,848. It is recommended that up to \$9,300 be allocated to the City of Kitchener to purchase hand-held acoustic monitoring devices and to defray a portion of the costs of a professional environmental consulting firm to conduct monitoring, analyse data, and prepare a report.

2016-06 Invasive Species Control at the F.W. Dickson Wilderness Area – (Category 1) – \$5,125

The F.W. Dickson Wilderness Area Environmentally Sensitive Policy Area [ESPA 47] in North Dumfries Township contains the Region's largest tall grass prairie remnant. This Grand River Conservation Authority property is located along the southern flank of the Dumfries Carolinian Environmentally Sensitive Landscape. For the past 20 years, the GRCA has been managing the area to conserve and enhance the prairie habitat. A prescribed burn was conducted in 2011 to kill off the shrubs and young trees that were threatening to shade out the sun-loving prairie grasses and wildflowers. This was funded in part by the Community Environmental Fund (Project 2011-09). At present, the prairie habitat and the publicly-accessible trails in the area are being threatened by the rapid growth of non-native Black Locust trees and invasive non-native shrubs. The GRCA is proposing a multi-year stewardship plan to control these invasive species employing volunteers under the supervision of Authority staff. Treated areas will be monitored to assess the effectiveness of the control methods. The total value of the project including in-kind contributions is \$13,350. It is recommended that up to \$5,125 be allocated to the Grand River Conservation Authority to cover the costs of equipment (tree loppers and tree-wrenches), safety equipment for volunteers, and to defray the cost of a licensed contractor to treat the invasive trees and shrubs with chemicals approved for the purpose.

2016-07 Woodland Management on the Branchton Village Land Trust Property – (Category 1) – \$ 1,130

The Branchton Village Land Trust was established in the 1990s to conserve a nine acre woodland within the Branchton Swamp Environmentally Sensitive Policy Area (ESPA 67) in the southeastern corner of the Dumfries Carolinian ESL. The land trust is operated by a group of local residents working to conserve the Carolinian woodland habitat on the property. The ice-storm of December 2013 caused significant damage to trees within the woodland. A number of trees were broken and others damaged such that they went into gradual decline. As a result, the Land Trust has had to fell several trees each year in the interest of public safety as lodged trees and major limbs could fall on visitors or abutting residential properties. Felled trees are allowed to decompose naturally on the forest floor, a practice which creates micro-habitats for a range of flora and fauna and gradually returns nutrients to the soil. Felling lodged trees can be risky, and requires specialised expertise. The Land Trust is now proposing to remove several more hazard trees. The total value of the project is \$1,130. It is recommended that up to \$1,130 be allocated to the Branchton

Village Land Trust to cover the costs of felling hazard trees on the Land Trust property.

2016-08 Waterloo-Wellington Science and Engineering Fair “Developing Environmental Advocates and Researchers” (DEAR) Project – (Category 4) – \$1,000

The 2016 Waterloo-Wellington Science and Engineering Fair will involve about 240 Grade 7 and 8 students in learning about and developing projects about biosolids. Participants will receive presentations by engineers working in the field and conduct a site visit. Students will be invited to learn about the agricultural uses of biosolids while considering their implications for the stewardship of soil microfauna and aquatic habitat. The students will be equipped to teach their fellow students in their respective schools about biosolids, and thereby increase community awareness and knowledge about this aspect of environmental stewardship. The total value of the project including in-kind contributions is \$5,088. It is recommended that up to \$1,000 be allocated to the Waterloo-Wellington Science and Engineering Fair to cover the costs of presentation materials, transport to the site visit, and facility costs for putting on the event.

2016-09 Sandhills Public School Outdoor Learning Space Enhancements – (Category 2) – \$2,000

Sandhills Public School is developing an Outdoor Learning Space as an opportunity for students to learn about aspects of the natural environment. The area is now in the process of development thanks in part to a previous Community Environmental Fund grant (Project 2015-18) which assisted with the initiation of the project. The current application is to assist with the development of a garden of native trees and shrubs in an area accessible to the students, creation of sheltered activity areas, and a rain garden in a stormwater management area. The total value of the project including in-kind contributions is \$21,525. It is recommended that up to \$2,000 be allocated to the Sandhills Public School Outdoor Learning Space Enhancement project to purchase native plants and soil amendments.

2016-10 Forest Glen Public School “Greening the Glen” Project – (Category 2) – \$2,000

Forest Glen Public School is continuing its schoolyard greening initiative by enhancing the Learning Grounds established in the first phase with assistance from the Community Environmental Fund (Project 2015-06). The current phase will focus on adding natural play elements to foster imagination, learning gardens, milkweed patches to attract Monarch Butterflies, and other opportunities to learn about environment stewardship. The enhanced features will encourage more outdoor activity by students. The total value of the phase 2 project including in-kind contributions is \$14,213. It is recommended that up to \$2,000 be allocated to the Forest Glen Public School to cover the costs of armourstone boulders, trees, and tree planting accessories.

2016-11 Chalmers Street Public School Outdoor Learning Centre – (Category 2) – \$3,000

Chalmers Street Public School is proposing to create an outdoor learning centre. Planting trees on the schoolgrounds will shade part of the active play area. The school also wishes to involve the students in stewarding the area. It is also hoped that parents will find the shaded site so inviting that they will use it to socialise while their children play in the area after school. The total value of the project including in-kind contributions is \$32,289. It is recommended that up to \$3,000 be allocated to the Chalmers Street Public School Outdoor Learning Centre project to purchase native trees and armourstone rocks for seating.

2016-12 Waterloo Region 2016 Shade Forum – (Category 4) – \$1,180

The Shade Working Group of Waterloo Region is a collaboration of Regional and Area Municipal staff and other community representatives meeting under the auspices of the Public Health and Emergency Services Department for the purpose of promoting shade as a means of preventing skin cancer by vulnerable groups. To date, the group has held several forums involving municipalities, school boards and other interested parties to learn about recent advances in shade provision in urban areas and to exchange best practices in order to stimulate local shade initiatives. In 2015, the group received Community Environmental Fund grant 2015-08 to assist with the production of a shade training video for practitioners. The group is now applying for funding to hold a Shade Forum later in 2016. The total value of the project including in-kind contributions is \$5,128. It is recommended that up to \$1,180 be allocated to the Waterloo Region Shade Working Group to cover the costs of holding the 2016 Shade Forum.

2016-13 10,000 Trees Re-launch Tri-City Tree Planting Day – (Categories 2,4) – \$4,250

The 10,000 Trees Project was established at the beginning of the century with the goal of planting 10,000 trees in the City of Waterloo. That goal has long since been surpassed and the organization's scope now extends well beyond the City and Region. 10,000 Trees is now in the process of re-branding as 10,000 Forests with the goal of promoting urban reforestation in the Region and beyond. It proposes a large tree-planting event which will be followed up by technology partners tracking the outcomes of the planting project as well as the degree of community engagement. The total value of the re-branding and tree-planting project including in-kind contributions is \$137,933. It is recommended that up to \$4,250 be allocated to 10,000 Trees for the purchase of promotional materials, supplies for volunteers, and payment of an event co-ordinator.

2016-14 Ayr Public School Greening Project – (Categories 1,2) – \$3,000

The Ayr Public School Greening Committee is seeking to improve the school grounds by improving drainage, eliminating Sand Wasp habitat, enhancing the play area, and

constructing an outdoor classroom and a nature trail. It is proposed to carry out these works this coming summer. The total value of the project including in-kind contributions is \$18,815. It is recommended that up to \$3,000 be allocated to the Ayr Public School to purchase native trees and armourstone rocks for the outdoor greening project.

**2016-15 Assessment of Vegetation Communities at Kossuth Swamp – (Category 5)
– \$7,502**

Kossuth Swamp was designated as ESPA 22 in 1976. Long before that time, drainage ditches were constructed within portions of the site. This has brought about changes in the composition of the woodland vegetation. A local landowner affiliated with the adjoining Cambridge Butterfly Conservatory has spearheaded formation of the Kossuth Bog Foundation which oversees a Restoration Committee comprising a professor of botany and representatives of the GRCA, Ministry of Natural Resources and Forestry, and Regional Community Planning Division. A study completed in 2005 examined the hydrology of the wetland and concluded that the drainage works are causing the former spruce bog to transition to a swamp forest. It is now proposed to conduct a detailed vegetation survey of the area by the Wilfrid Laurier University Biology Department. This will inform future stewardship plans for the area. The Foundation is now seeking permission from the other landowners for researchers to access their properties. The total value of the project including in-kind contributions is \$25,420. It is recommended that up to \$7,502 be allocated to the Wilfrid Laurier Biology Department Kossuth Swamp Vegetation Assessment project to cover the costs of supplies, student wages required to carry out the project, and associated travel costs.

**2016-16 Waterloo Stewardship Council Oak Savanna Restoration Projects –
(Categories 1, 2, 4) – \$4,100**

The Waterloo Stewardship Council has been working with private landowners to restore tall grass prairie and savanna habitat in North Dumfries Township where it survives in remnant patches. The Council is now proposing to restore three patches at Altrieve Lake (ESPA 56) and Barrie's Lake (ESPA 57) within the Blair-Bechtel-Cruickston ESL. This general area of the Region is known for its assemblage of rare plants. Oak savanna is dependent on periodic burning which the three sites have not experienced in decades. It is proposed to conduct prescribed burns and selective brush-cutting on the sites in order to remove woody vegetation and to stimulate the re-growth of herbaceous plants which depend on periodic burning. The total value of the project including in-kind contributions is \$19,748. It is recommended that up to \$4,100 be allocated to the Project to hire a licensed contractor to manage and perform the prescribed burns and carry out follow up monitoring on the sites.

2016-17 Preston Public School “PPS Panda’s Greening Initiative” – (Category 2) – \$ 3,000

The guiding vision of Preston Public School’s “PPS Panda’s Greening Initiative” is to enhance the accessibility of the schoolgrounds for outdoor learning and play for the school as well as the neighbouring community. This is a second phase of a larger project commenced earlier. The school has not previously applied to the Community Environmental Fund. It will focus on expanding the outdoor classroom in the all-day kindergarten area in order to promote gross-motor development and social and construction play. The quiet seating area will lend itself to study and unstructured play activities. The total value of the project including in-kind contributions is \$12,658. It is recommended that up to \$3,000 be allocated to cover the costs of trees and shrubs, tree planting accessories, and soil amendments.

2016-18 TWEEC Phragmites Control Project – (Categories 1, 2) – \$ 9,006

The Township of Woolwich Environmental Enhancement Committee (TWEEC) has commenced a programme to control invasive Common Reed (*Phragmites australis*) on selected sites within the Township. This plant has been identified as one warranting increased control effort because it is invading natural wetlands and clogging roadside ditches. TWEEC is proposing to build on its previous project (2015-07) to test different methods of Phragmites control, use the project to raise public awareness about the risks posed by the spread of this species, and to network with other groups working on Phragmites control such as the Laurel Creek ESL Public Liaison Committee. The total value of the project including in-kind contributions is \$9,921. It is recommended that up to \$9,006 be allocated to the Township of Woolwich Environmental Enhancement Committee (TWEEC) to cover the costs of implementing the Phragmites control project in 2016-17.

2016-19 Jacob Hespeler Secondary School Greenhouse Upgrade – (Category 4) – \$ 2,260

Jacob Hespeler Secondary School is planning to upgrade the school greenhouse to produce native tree seedlings and wildflowers for use in local habitat restoration projects on the school property. The project would benefit the school as well as the wider community who would be able to obtain trees and wildflowers for in public outreach events. The total value of the project including in-kind contributions is \$42,750. It is recommended that up to \$2,260 be allocated to the Jacob Hespeler Secondary School Greenhouse Upgrade Project to assist with the purchase of seed mats, greenhouse lighting equipment, nutrients, and hand-tools required to implement the project.

2016-20 Moffat Creek Public School Wetland Learning grounds – (Category 2) – \$3,000

Moffat Creek Public School is a relatively new school in south-eastern Cambridge. The site contains an area of Provincially Significant Wetland which provides opportunities for

outdoor education as well as active and passive recreational activities. In addition, the property is used by the local community outside school hours. The school community is now planning to enhance the ecological features of the site with additional plantings of native species and also create an outdoor classroom. The total value of the project including in-kind contributions is \$21,615. It is recommended that up to \$3,000 be allocated to the Moffat Creek Public School Wetland Learning Grounds project to purchase and install native trees on the site.

Attachment 2 - Stewardship Grants Not Recommended For Approval – February 23, 2016**Project Number****2016-A Food Not Waste – (Category 4) – \$15,021**

Food Not Waste is a social enterprise that re-distributes surplus food from restaurants to community organizations. It reflects the growing concern worldwide about the social, economic, and environmental costs of food waste. Food Not Waste is proposing to divert non-comestible food waste to composters as a way of reducing methane production from the decomposition of organic matter in landfills. The compost that results can in turn be supplied to community gardens to amend the soil. Food Not Waste has applied for funding to purchase 13 compost machines and associated supplies. The project was submitted under Category 4 – “Public education and awareness initiatives on some aspect of environmental stewardship relevant to Waterloo Region,” a category of which the emphasis is land stewardship. It is the opinion of staff that, despite the real merits of this project, it falls too far outside the “land stewardship” focus of the Stewardship Stream of the Community Environmental Fund. It would have been a much better fit in the former Sustainability Stream of the Fund which has not been funded since 2013.

2016-B Working Centre Market Gardening Education Project – (Category 4) – \$10,000

The Working Centre has developed a Market Gardening Education Project which involves community members in sustainable food production in urban areas. In the process, citizens from all walks of life learn about vegetable and fruit production. The Community Environmental Fund previously supported Working Centre projects (2012-14 and 2015-21) to restore soils on the rear part of the Hacienda Sarria property to a state that could produce food and also plant native species of fruit and nuts as a demonstration project. The current application is to hire a part-time community educator to co-ordinate the delivery of an urban agriculture curriculum through weekly workshops. The project was submitted under Category 4 – “Public education and awareness initiatives on some aspect of environmental stewardship relevant to Waterloo Region,” the emphasis of which is on land stewardship. It is the opinion of staff that this project like the one described above would also have been a good Sustainability Stream project, but that it also falls too far outside the “land stewardship” focus of the Stewardship Stream of the Community Environmental Fund.

2016-C Waterloo Region Environmental Network – (Category 4) – \$9,975

The Waterloo Region Environmental Network (WREN) is a recently established community-based organization that is now in the process of applying for charitable status. It holds events that bring together a wide array of professionals, entrepreneurs, researchers, students and non-profits to network and share the work they are doing in the

environmental field. WREN tracks individual actions and encourages collaborations to create a more sustainable society. Last year, the Region approved a grant of \$9,885 to WREN to launch the network through the creation of a “physical hub” (shared meeting and event space), “digital hub” (shared space to host knowledge and track the results of collaborations), and periodic events to bring participants together to foster community connections (Project 2015-19). The current request is to establish formal partnerships with major stakeholders in the local environmental community: Sustainable Youth Canada, Sustainable Waterloo Region, and Alternatives Journal. The project was submitted under Category 4 – “Public education and awareness initiatives on some aspect of environmental stewardship relevant to Waterloo Region,” It is the opinion of staff that this project, like the one described above, would also have been more appropriate as a Sustainability Stream project than a Stewardship project. Moreover, as of the time of writing this report, none of the grant approved in 2015 had yet been disbursed to WREN.

2016-D Buckthorn Spread in University of Waterloo Woodland Research – (Category 5) – \$ 18,399

Dr. Michael Drescher is proposing to carry out a detailed research project to document the temporal and spatial spread of invasive European Buckthorn in a small woodland (“Village Green Woodland”) at the corner of University Avenue and Westmount Road on the University of Waterloo campus. The research would cast light on how this species spreads through woodlands it infests. It would involve detailed sampling and analysis over a period of 11 months. The total value of the project including in-kind contributions is \$45,767. Dr. Drescher has requested \$18,399 to pay a research associate for 11 months. Staff do not recommend that this project be funded because it is very descriptive in nature and does not have an immediate applicability to woodland stewardship in the Region. Also, the amount of the request is significantly greater than the two applied research projects being recommended at this time.

2016-E St. John’s Kilmarnock School Ecological Outdoor Education Programme – (Categories 1, 2, 5) – \$ 40,680

St. John’s Kilmarnock School is planning an ambitious outdoor education plan that will centre around the restoration of a former gravel pit on the school property. The site will provide an opportunity for promoting ecological literacy among students by engaging them to become the designers of their own learning environment. As the project is relatively new, the total value of the project including in-kind contributions has yet to be determined. The organizers are also seeking out funding partners. The school requested \$40, 680 from the Community Environmental Fund, many times the maximum amount for schoolyard greening projects. Moreover, about a quarter of that appeared to be destined for curriculum development. Staff has advised the applicant that it would be appropriate to submit a new application in future that complies with the Region’s guidelines for schoolyard projects at a time when the project components are better identified and costed out and when complementary funding sources are involved.

Council Enquiries and Requests for Information				
Administration and Finance Committee				
Meeting date	Requestor	Request	Assigned Department(s)	Anticipated Response Date
24-Mar-15	T. Galloway	Report on options and impacts regarding blending Multi-Residential and New Multi-Residential property classes.	PDLS/COR (Finance)	Feb-2016
17-Nov-15	S. Strickland	Report on options related to collaboration between WRTMC and the local private sector, particularly with respect to a destination marketing fee.	PDLS (Cultural Services)	Apr-2016
13 Jan 2016 (Budget Committee)	D. Craig	Report listing of Regional programs that are provincially mandated with no additional provincial funding.	COR (Finance)	Sep-2016