

# RAISING THE BAR ONE PROJECT AT A TIME

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### **ENVIRONMENTAL ACHIEVEMENT AWARD**

The Environmental Achievement Award recognizes OSSGA members that have developed and successfully implemented industryleading policies, programs or projects that make positive contributions to the environment in order to raise member awareness on environmental issues and motivate leadership within the industry.

#### Fowler Construction Company Limited Childs Pit

Town of Bracebridge

The purpose of the Sage Creek Protection Area is to preserve the Sage Creek Valley a unique natural heritage feature — and to share it with the public. The area sets aside approximately 63 ha of land, including Sage Creek (a coldwater creek with a naturally reproducing population of Brook Trout), its delta, lands to the south and important shoreline on the north branch of the Muskoka River. Back in 1994, The Muskoka Conservancy, then known as Heritage Trust, identified the land as an important Natural Heritage Area. By voluntarily excluding this area from the licence application and involving local conservation groups, this

natural feature will be protected and shared with the local community. Fowler will be protecting a buffer zone to the north of Sage Creek, which will shelter the entire creek valley for generations to come. A walking trail will be made available to the public, with no access to motorized vehicles. This buffer will also help reduce the impact on the local environment by reducing noise and shielding impacts to other receptors to the south from operations. Fowler hosted an Open House event for neighbours last fall to showcase the new trail and its operations.

The trail along the creek boasts breathtaking views of small rapids and waterfalls, as well as impressive vertical faces across the creek to the south. The valley that houses Sage Creek is home to many types of flora and fauna, with a wide array of local species of birds, plants and animals.



The project will be completed this spring when the final fencing on the property is installed. The property will also be voluntarily zoned as Environmentally Protected in the Town of Bracebridge's official plan by the end of 2013.

The Childs Pit property is a key aggregate reserve for the community and a long-term resource for the local economy. During the life of the operation, Fowler will maintain ownership of the land, while the Muskoka Conservancy will act as the stewards. Fowler will continue to maintain the trail, control access and work with stewards and neighbours to keep Sage Creek accessible and in pristine condition.

### A SPECIAL THANKS TO THE JUDGES

The industry awards review panel is mainly comprised of judges invited from outside the industry, including representatives from CONE (Coalition on the Niagara Escarpment), the Cornerstone Standards Council, Ontario Nature, the Ministry of Natural Resources and the Township of Uxbridge, as well as OSSGA members Genivar Inc. and Harrington McAvan Ltd.

The environmental award and student design awards review panels were comprised mainly of associate members from OSSGA's Rehabilitation, Environment and Species at Risk committees.



## **PROGRESSIVE REHABILITATION AWARD**

The Progressive Rehabilitation Award recognizes ongoing efforts of individual operators in progressively rehabilitating their sites in accordance with their site plans.



Sponsored by

### Walker Aggregates Inc.



#### CBM Aggregates – A Division of St Marys Cement Inc. Canada Brighton Pit

#### Brighton

The objective of this rehabilitation project was to naturalize the shoreline around the pond at Brighton Pit and plant trees to help reforest the area. Extraction at the pond's edge was completed between April and May 2012, with overburden graded to a 5:1 slope that lead down to a flat pond edge. Approximately 2,000 tonnes of topsoil was moved from a berm east of the rehabilitated area and spread to form a 10 to 12-inch layer over 1.04 ha. A land reclamation seed mixture of rye grass, creeping red fescue, tall fescue, timothy, aslike clover, white clover and birds trefoil was distributed across the new slopes at a rate of 150 kg/ha. To complete the rehabilitation work, 300 trees (red pine, white cedar and red osier dogwood) were also planted.

#### CBM Aggregates – A Division of St Marys Cement Inc. Canada

Clarington Pit Municipality of Clarington

The objective of this rehabilitation project was to create an area with a future recreational use at Clarington Pit. The north pit project began in August 2012 and was completed by the end of September, with a total area of 3.63 ha rehabilitated. Onsite overburden was used to backfill the side slopes to a 3:1 grade. Once a rough grade was established, topsoil from berms found at the top of the bank was moved and spread at a depth of 10 to 12 inches. Approximately 7,000 tonnes of overburden and 3,000 tonnes of topsoil were applied in total. CBM staff then applied a timothy, perennial rye and clover seed mix at a rate of 125 kg/ha.





#### CBM Aggregates – A Division of St Marys Cement Inc. Canada Cramahe Pit

#### Brighton

The objective of this rehabilitation project was to naturalize the 3:1 side slopes at Cramahe Pit and prepare the land for a future agricultural use. The central slope and pit floor rehabilitation project began last April and was completed in May. Aggregate extraction ended on the central slope in the fall of 2011, leaving behind a 1:1 slope and a flat pit floor. Approximately 7,000 tonnes of overburden and 3,000 tonnes of topsoil were used to construct the newly formed 3:1 slopes. The overburden from stockpiles at the back of the pit was spread into a one-foot-thick layer over the 3.53-ha rehabilitated area. The topsoil was then moved and dispersed in a similar fashion on top of the overburden. A land reclamation seed mixture of annual rye grass, creeping red fescue, tall fescue, timothy, aslike clover, white clover and birds trefoil was distributed across the new slopes at a rate of 125 kg/ha.



#### CBM Aggregates – A Division of St Marys Cement Inc. Canada Fanshawe Pit

#### London

The objective of this rehabilitation project was to naturalize the top of the bank and side slopes at Fanshawe Pit for a future recreational purpose. Extraction was completed on the north pond slope more than a decade ago, leaving behind a 2:1 slope. Before rehabilitation efforts began, the area was rough, with small overburden piles at various locations. The north pond slope rehabilitation project began at the end of May, 2012 and was completed in June. Overburden was put in place to create a 4:1 slope, with approximately 2,000 tonnes of topsoil spread across the total project area of 0.8 ha. An 8-12-inch layer of topsoil was spread over the 4:1 slope. A seed mix of creeping red fescue, kentucky blue grass, perennial rye grass and white clover was finally applied at a rate of 150 kg/ha.

#### CBM Aggregates – A Division of St Marys Cement Inc. Canada Thamesford Pit

Thamesford

The objective of this rehabilitation project was to eliminate a berm and naturalize 3:1 slopes to the pond's edge at Thamesford Pit. Excavation along the northeast slope occurred over a decade ago, leaving behind a 2:1 slope. Work on the 1.1-ha area began in March of 2012 and was completed at the end of May. A D8 dozer was used to level and shape the existing on-site overburden into a newly formed 3:1 slope. Extra care was taken to preserve as many trees as possible in the process. Topsoil from the northern berm was applied to the slope and spread at a depth of 10 to 12 inches. With the earth moving complete, a rye grass and barley mix was applied at a rate of 125 kg/ha.





#### Lafarge Canada Inc. Cambridge Pit Township of North Dumfries

The objective of the 2012 rehabilitation project at Cambridge Pit was to progressively rehabilitate the final extraction faces of the pit and a silt pond that is no longer required. Overburden material from the perimeter berms was placed within the area and sloped to achieve the desired 3:1 ratio as indicated in the site plans. A 10 to 12-inch topsoil layer was then applied to the rehabilitated area. To prevent soil erosion, stabilize the slope and encourage natural, long-term re-vegetation on the site, the newly rehabilitated slopes were seeded in the summer of 2012. Overburden material was trucked to the old silt pond area and applied over the pond with topsoil to reach the desired grade. A mix of creeping red fescue, perennial ryegrass, kentucky bluegrass and white clover was also applied at a rate of 150 kg/ha. In total, approximately 3.8 ha of slopes and floor have been rehabilitated at this site last year.

#### Lafarge Canada Inc. Fonthill Pit Township of Pelham

The 2012 rehabilitation work at Fonthill Pit covered an approximate area of 2.9 ha and included sloping of two extracted faces. In total, approximately 30,000 cubic metres of overburden material was used to accomplish this project. The entire area was graded to a final slope of 2:1 and covered with topsoil at an average thickness of 10 to 12 inches. The final phase of the project consisted of seeding the entire exposed area with a grass-legume mixture applied at a rate of approximately 227 kg/ha. The seed mix, chosen for its ability to stabilize slopes quickly as stipulated in the site plan, included empire trefoil, fertilizer, creeping red fescue and annual rye grass.





#### **Lafarge Canada Inc.** *West Paris Pit Paris*

The project at West Paris Pit consisted of rehabilitating the pit floor and covered an area of approximately 0.8 ha. In total, approximately 42,000 cubic metres of overburden material was used to accomplish this work last year. The entire area was first graded to an elevation and contour as outlined in the site plan. Then, topsoil was spread over the finished slope at an average thickness of 10 to 12 inches. The final phase of the project involved seeding the entire exposed area with a grass-legume mixture of fertilizer, creeping red fescue and annual rye grass that was applied at a rate of approximately 227 kg/ha.

#### **Lafarge Canada Inc.** Woodstock Quarry Township of Zorra

Covering an area of approximately 0.7 ha, the 2012 rehabilitation project at Woodstock Quarry involved rehabilitating the floor where extraction has been completed. Incorporating approximately 25,000 cubic metres of topsoil and overburden material in total to complete the project, the entire area was graded to a 2:1 slope down to the access road as outlined in the site plan. Topsoil was then spread over the finished slope at an average thickness of 10 to 12 inches. The final phase involved seeding the entire exposed area with a grass-legume mixture applied at a rate of approximately 227 kg/ha. The seed mix was chosen for its ability to stabilize slopes quickly as per the site plan and included the following species: fertilizer, creeping red fescue and annual rye grass.



## **COMMUNITY RELATIONS AWARD**

The Community Relations Award recognizes good neighbour activities, community involvement, media relations and education awareness.

### Sponsored by Hellingman

Communications Inc.

### Capital Paving Inc. Wellington Pit

Township of Puslinch For more than two decades, Capital Paving has worked diligently in support of its community through sponsorship, donations and Open House events. The company's first Annual Miles for Memories event proved to be a tremendous success, with \$63,000 raised in the fight against Alzheimer's Disease last spring. Two other ambitious projects undertaken by Capital employees included the revitalization of the historic Ellis Chapel and maintaining a small local cemetery. In the summer and fall of 2012, Wellington Pit was chosen as the host site for a tour for the Standing Committee on General Government responsible for reviewing the Aggregate Resources Act legislation.

Neighbour Relations: Since opening its doors for business in 1999, Wellington Pit has not received any major complaints related to noise, dust or traffic from the surrounding community. In addition to conducting extensive noise and traffic studies, Capital has written a Dust Mitigation Policy that is strictly enforced. During the holiday season, Capital staff hand-delivered over 40 holiday baskets to all of the surrounding Wellington Pit & Head Office neighbours as a thank you for their support and to gain valuable feedback about the company's performance.





#### Dufferin Aggregates, a division of Holcim (Canada) Inc. Acton Quarry

#### Acton

Acton Quarry has made over \$11,000 in monetary and material donations within the last 12 months in support of such local groups and organizations as the Canadian Red Cross, Limehouse Public School, MS Super Cities Walk, Acton Agricultural Society, Acton Fire Fighters Association, the Children's Wish Foundation, and many more. The Holcim Canada Ready-Mix Drum Sponsorship Program in support of Halton Healthcare Services raises \$100,000 each year for Halton Region hospitals. Other unique efforts to build understanding and good relations in the local community include such initiatives as helping to develop the Acton Public Library via contributions and supporting the Limehouse Kiln Society. The Community Liaison Committee also serves as a useful forum for the local community to discuss issues pertaining to the nearby operations.

Neighbour Relations: Acton Quarry has installed back-up beacons on all mobile equipment for evening operations to eliminate the noise of back-up beepers safely. A Blasting Beyond Compliance program was also developed to further decrease noise and vibrations during operations.

#### Dufferin Aggregates, a division of Holcim (Canada) Inc.

#### Flamboro Quarry City of Hamilton

The Flamboro Quarry is committed to being a part of the fabric that makes up the local community. Site activities include donations to local groups and charities, hosting an annual Open House event, participating in Earth Week activities, and engaging and educating community members through a Community Advisory Panel.

Neighbour Relations: In early 2011, Flamboro Quarry completed a new primary processing facility, which uses Poly-deck rubber screens and runs on hydroelectricity. An overflow chute of the primary surge bin was lined with rubber to reduce noise. As with all Dufferin sites, the main entrance and internal haul roads are cleaned with the help of a sweeper and water truck to minimize the amount of material on public roads. The Dufferin Aggregates Logistics Department has developed a Truck Safety Policy and signage to serve as a reminder of the importance of road safety and courteous driving to educate quarry drivers and demonstrate the company's vision for sustainability. The site also has an extensive monitoring program where all blasts are monitored for ground and air vibrations to ensure compliance with Ministry of Environment guidelines.





#### Dufferin Aggregates, a division of Holcim (Canada) Inc. Mill Creek Pit

#### Township of Puslinch

Unique activities for this site include collaborating with a local school during Earth Week and an annual roadside cleanup in cooperation with the Township of Puslinch, as well as participation on local task forces, such as the Friends of Mill Creek Committee and the Township of Puslinch Community Oriented Policing Committee. Among many other donations, The Mill Creek Pit contributes \$5,000 annually to the Grand River Conservation Authority's Mill Creek Stewardship Ranger Program, which hires local high school students to work on creek rehabilitation projects. A neighbour load donation plan is also in place to help streamline the approval process for neighbours residing within designated areas around Mill Creek Pit.

Neighbour Relations: To further reduce dust and noise emissions generated at the site, Mill Creek Pit has installed a number of conveyor belt systems that transport aggregates from the extraction areas to the processing plant, thereby eliminating the need for haul trucks.

#### Dufferin Aggregates, a division of Holcim (Canada) Inc. Milton Quarry

Town of Milton

As one of the largest producing quarries in Canada, the Milton property is very focused on being a good neighbour. With some 20 neighbours at the quarry perimeter, management and staff work proactively to deal with any issues that may impact local residents. To celebrate its centennial, Holcim (Canada) Inc. and its divisions. including Dufferin Aggregates, embraced the global Together for Communities volunteer initiative, which aims to give back 100 years of community service to the local communities in which they operate. Milton benefited from road cleanups, fundraisers for medical equipment, food drives, educating youth on water conservation, and much more.

Neighbour Relations: The site's vibrating feeders are located in a tunnel underground and the primary crusher is located below grade to further minimize noise. Each year, Milton Quarry also hosts a meeting with regulatory agencies and neighbours to discuss the annual water monitoring report that highlights all of the water monitoring results from the previous year.





#### Dufferin Aggregates, a division of Holcim (Canada) Inc. Mosport Pit

#### Municipality of Clarington

Mosport Pit provides financial and material donations to help build trust and foster positive relationships with its neighbours, schools and other local community groups. Within the last 12 months, Mosport has donated over \$7,000 in monetary and material donations to local charities, public organizations and the local municipality in support of community-driven events. Most notably, the pit donated a significant amount of aggregate materials to the Municipality of Clarington to help rehabilitate Newcastle Beach. Among a host of community initiatives, Mosport Pit employees collected some 150 kg of garbage in a clean up day at Orono Park last spring as part of Earth Week.

Neighbour Relations: Since 2011, Mosport employees have been monitoring speeds of incoming traffic to help crack down on speeding and spread awareness among haulers.



#### **Lafarge Canada Inc.** Caledon Pit Town of Caledon

Known for employing young Maple Leaf hockey players in the 1950s for extra income, Lafarge remains in the spotlight with numerous annual contributions to the local community. Last year, Lafarge was a Platinum Sponsor at the Caledon Council Community Golf Tournament in support of Caledon Community Services to help develop a comprehensive and innovative food support facility for hundreds of families, youth and seniors in need of assistance with food, skills development, nutrition education, etc. Lafarge also presses on with its tradition of sponsoring the Conservation Gala fundraising dinner and auction in support of the Credit Valley Conservation Foundation. Last fall, Lafarge employees took some time out of their busy schedules to host over 250 runners, neighbours, political leaders, employees, family and friends at the inaugural Caledon Pit Run and Food Drive, which proved to be a great success. Lafarge continues to be an active member of the Caledon community with numerous other local initiatives. including community cleanups, donations towards maintaining local facilities, supporting local youth sports teams and hosting social functions.

#### Lafarge Canada Inc.

Dundas Quarry Flamborough Township

In 2012, Lafarge was honoured with the Community Service by a Business award by the Flamborough Chamber of Commerce for significantly giving back to the community. Some notable efforts at this site include cleaning up garbage along the Lafarge 2000 Trail, Hamilton Mission Services work, donating armour stone for the beautification of downtown Waterdown in Flamborough, sponsoring the Halton Forest Festival and much, much more.

Neighbour Relations: Special rubber and ceramic mats installed at material transfer points in the processing area absorb the impact of falling rock to reduce noise. In addition, Lafarge recently acquired a new surface drill rig and a new bulldozer with silence kits to foster a quieter working environment at Dundas Quarry. Calcium chloride is also applied several times a year to all roadways and stockpiles, and a full-time employee is dedicated to applying water to all exposed site areas to reduce dust. Safety, including the safety of locals driving on nearby roads, is the number one priority at Lafarge. Traffic lights were installed to regulate traffic so slower-moving haul trucks have enough time to cross the road. Seismographs can also be found at several locations outside the quarry and at the site to measure the amount of air and ground vibration caused by blasts.



#### Lafarge Canada Inc. Mosport Aggregates

City of Kawartha Lakes In 2011 and 2012, Lafarge donated 5,000 tonnes of aggregate to the Whitby Abilities Centre and some 71 tonnes of sand, including trucking costs, to the Adanac Horse Farm in Cobourg for young children with disabilities. Mosport site also contributed \$1,000 to the Manvers Historical Society to help restore a historic Pontypool grain elevator - the last freestanding gravityfed grain elevator in Ontario. Children aged six to 18 with physical disabilities had an opportunity to engage in noncompetitive and supportive sporting events last year thanks to a generous donation by Mosport to the Durham Regional Police Children's Games. For Mosport employees, there is more to community involvement than donations. Last November, staff from Lafarge's head office and Mosport participated in a local community cleanup with the Ontario Federation of the 4WD Recreationists. Donations of safety gloves and goggles, of course, were also included.



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#### Lafarge Canada Inc. Oro-Medonte Pits

Township of Oro-Medonte The Lafarge Orillia Pit is involved with the community in a number of ways. Each year, site staff are Survivor Sponsors for the 12-hour overnight run Orillia Relay for Life in support of the Canadian Cancer Society. Lafarge is also actively involved in the Orillia Santa Claus Parade every November and regularly supplies building materials to the Simcoe community for people in need. For example, Lafarge teamed up with other local businesses to supply materials to build a playground for a young girl diagnosed with leukemia.

Other initiatives include sponsoring local youth sports teams, raising money for worthy causes, such as the Crohn's and Colitis Foundation of Canada, and volunteering at local food banks.

Neighbour Relations: Lafarge has a solid record of resolving community concerns. In the event that a complaint is received from a neighbour, it is recorded and a verbal or written response is sent out in a timely manner. Dust is also not a major issue at the Lafarge Orillia Pit since the wash plant and stockpiles drain enough water onto the roads to suppress dust from mobile equipment and haul trucks. In addition, all new Lafarge drivers must participate in an orientation and safety course to ensure safety both at the pit and on public roads.

#### **Lafarge Canada Inc.** Stouffville Pit Township of Whitchurch-Stouffville

For the past three years, the Lafarge Stouffville plant has sponsored the Stouffville Strawberry Festival - the second-largest attraction in York Region of its kind, with over 20,000 people visiting each year. Lafarge was also a Silver Sponsor and participant at the Mount Albert 5-km run last summer, as well as the Stouffville Winter Carnival. Each year, Stouffville Pit is a proud supporter of numerous local youth sports teams and groups in an effort to promote healthy lifestyles in the community, including the Lake Simcoe Soccer Club and the Community Variety Show, with proceeds going to Camp Maple Leaf (an organization that supports military families and helps send less fortunate children to camp).

Neighbour Relations: The onsite wash plant reduces dust as most of the aggregate products are washed and the wash plant effectively reduces dust in product stockpiles by removing fines. In addition, all mobile equipment used on-site is power washed on a weekly basis. The Stouffville Sand and Gravel Pit can be accessed from Durham Road 30, and there is a separate entrance and exit driveway to improve traffic control. Both of these driveways are also very clearly marked using appropriate signage.





#### **Lafarge Canada Inc.** *Uxbridge Pit Township of Uxbridge*

Uxbridge Pit donated 15 tonnes of brick sand, plus the use of equipment to help build the base of a tipi installed by the Durham District School Board Environment Education Department to educate visitors. The site also has an excellent working relationship with the York-Durham Heritage Railway Association, contributing over \$3,000 in aggregate material last year, including sand for a track and field meet at the Goodwood Public School. Volunteering at the Rotary Club of Uxbridge and donating to the Sunny Days for Conservation fundraiser in support of children's outdoor education programs and accessible outdoor recreation in the Durham Region are just some of the many ways Uxbridge shows it cares.

Neighbour Relations: Truck traffic complaints are handled at the site in a timely matter. Should a driver receive more than two warnings regarding unsafe behaviour on or off site, they will no longer be allowed to haul material for Lafarge.

#### **Lafarge Canada Inc.** West Paris Pit Paris

Lafarge is committed to being an active member in the Paris community. In one recent project, Lafarge helped create a skate park with the Paris Optimist Club as part of its 60th anniversary project. In partnership with the County of Brant Fire Department, Lafarge also held a mock "disaster" training session at West Paris Pit, providing an opportunity to practise various rescue scenarios. This training was such a great success that Lafarge is now looking for similar opportunities in other communities where it operates. Last winter, Lafarge also participated in the Coldest Night of the Year walk fundraiser in support of Canadian charities serving the hungry and homeless in cities and communities across Canada.

Apart from being very active with the local youth, another of Lafarge's many special relationships is its partnership with Scouts Canada. In 2012, a group of over 20 Scouts and Scout leaders planted a total 750 tree seedlings on Lafarge land – this is in addition to several other Lafarge tree plantings held throughout Ontario.



## **PROPERTY ENHANCEMENT AWARD**

The Property Enhancement Award recognizes operational best practices in the following areas: entrance, approach and perimeter screening; office and scale house areas; employee areas; plant appearance; environmental controls; trucks and mobile equipment; and communicative signage.

A plaque is awarded to a site that initially meets the minimum requirements in each of the above noted sections. Site operators are then provided an opportunity to meet the comprehensive list of criteria for each section to win a "gold" bar for that section. There are seven "gold" bars to be achieved in total.



Lafarge Canada Inc. Brechin Quarry Township of Ramara ONE "GOLD" BAR Communicative Signage



Lafarge Canada Inc. Guelph Pit & Quarry Township of Puslinch SIX "GOLD" BARS Entrance Approach & Perimeter Screening Office & Scalehouse Areas Employee Area Plant Appearance Environmental Controls Trucks & Mobile Equipment



Lafarge Canada Inc. Mosport Aggregates City of Kawartha Lakes ONE "GOLD" BAR Environmental Controls



Lafarge Canada Inc. Orillia Pit Township of Oro-Medonte SEVEN "GOLD" BARS Entrance Approach & Perimeter Screening Office & Scalehouse Areas Employee Area Plant Appearance Environmental Controls

Trucks & Mobile Equipment

Communicative Signage



Lafarge Canada Inc. Woodstock Quarry Township of Zorra SEVEN "GOLD" BARS Entrance Approach & Perimeter Screening

Entrance Approach & Perimeter Screening Office & Scalehouse Areas Employee Area Plant Appearance Environmental Controls Trucks & Mobile Equipment Communicative Signage



#### Sponsored by

**GENIVAR** 

## **STUDENT DESIGN COMPETITION**

Brought to you by The Ontario Aggregate Resources Corporation (TOARC) and OSSGA, the Student Design Competition recognizes the best green visions for the ecological revitalization of a former pit.In this case, participants were asked to present plans for four pits located in the municipalities of Thames Centre (London area), belonging to CBM Aggregates: Olalondo Rd. Pit, Archery Pit, Diocese Pit and McGuffin Pit. Winners are awarded cash prizes.



Kyle Regeling, Morgan Ruttle, Gereen Mcleod University of Guelph

The design intent is to create a native seed source hub for Southern Ontario: a state-of-the-art facility for freezing, propagating and storing collected native seeds. Both the Tallgrass Prairie and Carolinian Forest are endangered plant communities in the region, and both planted zones will be incorporated on-site allowing for seed harvesting and the creation of a seed bank.

The facility will be the first of its kind in Ontario, supplying native seeds for site rehabilitations. It will improve on current methods by increasing biodiversity and implementing valuable native species, including those that are threatened and on the brink of extinction.

The facility will eventually become profitable by selling excess seed to the province and private landowners. It will also enhance the public image of the aggregate industry, showing their initiative in restoring extracted sites using innovative and ecological methods to improve Southern Ontario's valuable, native ecosystems.

#### 2ND PLACE - \$2,000 **AFC Forest**

Brian Fong, Laura Wood, Meghan Hunter University of Guelph

Representing agriculture, forestry and conservation, this design sets out to improve the ecological value of the land approximate to the Thames River, and to provide economic benefit and educational value to the surrounding community.

Rehabilitation will create multiple zones on the site, some of which will be dedicated to the ecological enhancement of the proposed wetland ecosystems, while others will be set aside to develop into areas with microclimates and conditions appropriate for agro forestry. The area is graded into swales, which drain the site from the high points to the Thames River at the south end of the site. Alongside the swales are lower graded wetlands allowing runoff to filter as it flows

away from the site. Proposed agricultural regions provide optimum conditions to grow Christmas trees, blueberries, sweet chestnuts, ginseng, maple sugar trees and shiitake mushrooms. The resulting crops will allow further research and experimentation on agro forestry practices and ecologically friendly agriculture.

The proposed design will also re-establish the area as a unique landmark in London and it will serve as a multi-use area for experimentation in agro forestry.









#### 3RD PLACE - \$1,000 Ecoquatech Research and Farming Institute

Fred Silverthorn Fanshawe College

The Ecoquatech Institute will address environmental concerns centred on the quality of waterways and their ever-growing list of endangered species. It will become an important facility in the restoration of the natural balance of the ecosystem, primarily by rejuvenating endangered aquatic species while growing produce and farmed fish.

The Institute's aquatic research component will be affiliated with the Upper Thames River Conservation Authority and will include the restoration of the biodiversity of the Thames River system, as well as a hands-on approach to education through volunteer groups and schools.

Technology-driven initiatives will allow this facility to propagate endangered species while also exploring aquaculture and fish farming. Displays and tours showing endangered species will highlight the impact humans have on the environment and its detrimental effect on wildlife.

Also, the Ecoquatech Institute will use alternative energy sources such as solar panels on the greenhouses and geo-thermal heat recovery systems.

#### 4TH PLACE - \$600 Ecological Revolution

Shain Wasserman, Ian Fyfe, Haley Farmer University of Guelph

The aim of this site is to educate people on the impact they have on their environments by creating a museum experience – a "Museum of Remediation" with the site itself as the main exhibit. The museum would promote active and passive learning, and connect to the surrounding community and preservation areas to add cultural value.

This museum will act as a showcase for the landscape architecture profession, as well as OSSGA remediation projects. Visitors will



choose from a variety of interactive activities and learning opportunities promoting healthy living within an environmental and ecological context. They will be introduced to land reclamation processes and methods through interaction with diverse landscapes and gardens, providing them with a unique take-away experience.

Half of the building will remain empty when first established in order to promote the future of the profession and the remediation mentality. We suggest that OSSGA fund the building and maintenance of the museum.