

Holcim Canada's Biodiversity Strategy



Planning & Regulatory Affairs

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Biodiversity refers to the **variety of life on Earth.**

- Biodiversity applies to all living things, on global and local scales
- Ecosystem resilience is reliant on biodiversity
- Natural disturbances are negatively impacting biodiversity:
 - ▶ pollution
 - ▶ land use changes
 - ▶ habitat fragmentation
 - ▶ invasive species
 - ▶ climate change
- Governments, industries and public are becoming more knowledgeable and involved in biodiversity issues
- **As a resource intensive industry, Holcim is committed to minimizing our ecological footprint. Therefore Holcim Ltd. has recognized biodiversity in our long term global strategy.**





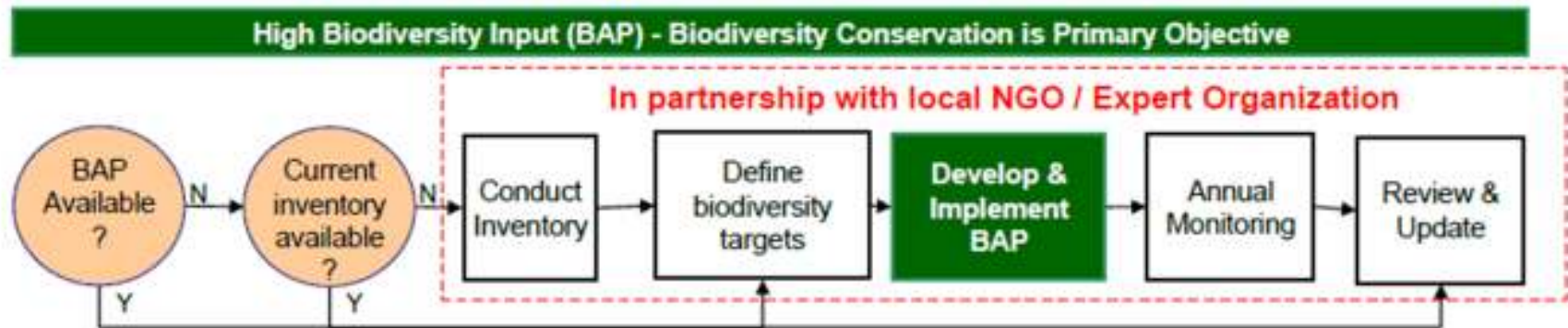
Holcim is Addressing Biodiversity on a Global Scale

- Holcim Canada is a member of the Holcim Group, a Swiss-based multinational with operations in more than 70 countries worldwide.
- Holcim has partnered with the International Union for the Conservation of Nature (IUCN)
 - ▶ IUCN is comprised of 111 government agencies, 800 NGOs, 10,000 experts from 181 countries
 - ▶ Through this partnership, an independent expert panel developed a biodiversity management system (BMS) to be implemented at Holcim Group sites on a global scale
 - ▶ The BMS uses an integrated approach, building upon existing tools and processes, and encompassing the entire site life cycle from exploring potential reserves to site operations and eventually to closure.
 - ▶ The main objective of the BMS is to provide the tools and guidance to ensure that biodiversity issues are systematically identified and appropriately managed across all the stages of the extraction sites.
- The Primary Focus for 2012 involves:
 - ▶ Building partnerships with ENGOs and conservation agencies to align Holcim's biodiversity goals with regional, provincial and national objectives
 - ▶ Developing Biodiversity Action Plans for our most sensitive sites



Biodiversity Action Plans (BAPs) are the Highest Level of Biodiversity Input for a Site

- BAPs will be developed in 2012 at four (4) Holcim Canada (HCA) sites, including the Cayuga Quarry
- For sites that require a BAP, partnerships with Environmental Non Governmental Organizations (ENGOS) are recommended.
- ENGOS will assist in conducting inventories and annual monitoring for the site, as well as the development of the BAPs and it's biodiversity targets



Biodiversity can be Enhanced through Rehabilitation of Pits and Quarries

- **Aggregate extraction is a temporary land use.**
- Rehabilitation of a pit or quarry presents an opportunity to create a wide range of end land uses, including wildlife habitat, wetlands, recreational parks, and agricultural lands
- Some of the best known landmarks in Ontario used to be pits and quarries, including over 70 rehabilitated sites in Toronto area alone
 - ▶ Christie Pits, Toronto
 - ▶ Royal Botanical Gardens, Hamilton
 - ▶ Don Valley Brick Works, Toronto
 - ▶ Peninsula Lakes Golf Club, Fonthill
 - ▶ Hagersville Ball Diamond, Hagersville



Progressive Rehabilitation at the Dufferin Aggregates Milton Quarry

Dufferin Aggregates (DFA) Cayuga Quarry has an Endangered Species Agreement with the Ministry of Natural Resources, which will be incorporated into the site's BAP

Although a Gray Ratsnake has not been found on the DFA Cayuga Property, it has been confirmed on adjacent properties, and there is suitable habitat on our site.

Gray Ratsnake Endangered Species Agreement

- Annual training and awareness program for all employees and contractors working on the property
- Habitat creation (nesting boxes, sheds)
- Annual habitat monitoring and breeding survey
- Consultation with MNR on rehabilitation activities

Gray Ratsnake Statistics

- Largest snake in Ontario (avg. length = 2.5m)
- Threats include habitat loss, persecution and road mortality
- Classified as an Endangered Species
- Non – venomous
- Arboreal
- Avg. active season is April – Oct
- Diet is mostly rodents, birds or frogs; however they are capable of consuming something as large as a rabbit!



Holcim Canada has entered into Several Partnerships to Implement our Biodiversity Strategy.

Bird Conservation is a Focus for Holcim Canada Partnerships for the Following Reasons:

- North America's most visible wildlife species
- Effective indicators of biodiversity because they rely on support a variety of habitats
- Provide critical ecosystem services to support biodiversity
- Economically and culturally important
- Relative to HCA operations, because a variety of birds are commonly found on our sites
- Rehabilitation of several HCA sites include end land uses to create habitats that are needed by bird species in Ontario, such as wetlands or grasslands
- Populations are declining



Economic note: tourism, birdwatching + provision of ecosystem services that maintain forestry & agriculture industries⁷

Holcim Canada has entered into a partnership with Bird Studies Canada (BSC) to monitor birds on our properties

- BSC is an ENGO and a predominant National bird organization in Canada.
- BSC work closely with Environment Canada (EC), Ministry of Natural Resources (MNR) and the North American Bird Conservation Initiative (NABCI)
- BSC will complete bird monitoring at three (3) sensitive sites to contribute to the BAP development, and will act in an advisory capacity for monitoring at a fourth site (which will be completed by another more local ENGO).
- The monitoring that BSC completes will produce a framework which can be expanded upon in years to come for less sensitive sites



Holcim Canada will be working with Ministry of Natural Resources (MNR) and Environment Canada (EC) in 2012 to support a bank swallow management project for the aggregate industry.

- Bank swallows nest in near vertical faces composed of fine grained sand and gravel
- Bank swallows are currently protected under the Migratory Birds Conservation Act
- MNR and EC want to work with aggregate companies to research and develop best management practices for bank swallows



Holcim Canada has entered into a partnership with Earth Rangers focusing on migratory songbirds.

- Earth Rangers is a national award-winning, non-profit organization focused on communicating the importance of biodiversity to children.
- The Earth Rangers partnership with Holcim Canada (HCA) will be announced later this year.
 - ▶ HCA will be sponsoring a Bring Back the Wild project, and will be encouraging children to get involved in biodiversity.
 - ▶ Earth Rangers will also provide expert advice to HCA on how to enhance biodiversity of the natural and rehabilitated areas of our properties, and will assist with the development of BAPs.





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