



Partnerships & Other Innovative Approaches for Biodiversity Conservation

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UN CBD – BUSINESS AND BIODIVERSITY – CANCUN, MEXICO



GM Environmental Principles *(approved BOD 1991)*

The following environmental principles provide guidance to General Motors personnel worldwide in the conduct of their daily business practices.

- ▶ **1. We are committed to actions to restore and preserve the environment.**
- ▶ 2. We are committed to reducing waste and pollutants, conserving resources, and recycling materials at every stage of the product lifecycle.
- ▶ **3. We will continue to participate actively in educating the public regarding environmental conservation.**
- ▶ 4. We will continue to pursue vigorously the development and implementation of technologies for minimizing pollutant emissions.
- ▶ 5. We will continue to work with all governmental entities for the development of technically sound and financially responsible environmental laws and regulations.
- ▶ **6. We will continually assess the impact of our plants and products on the environment and the communities in which we live and operate with a goal of continuous improvement.**

GM Environmental
Principles – 25 years
old

As a responsible corporate citizen, General Motors is dedicated to protecting human health, natural resources, and the global environment.

This dedication reaches further than compliance with the law to encompass the integration of sound environmental practices into our business decisions.

2020 Sustainability Goal Progress



Renewable Energy

RE100 by 2050



CO₂ Footprint

15% reduction (CO₂e tons/veh)*



Energy Use

14% reduction (MWH/veh)*



Water Use

10% reduction (m³/veh)*



Community Outreach

100% all manufacturing sites



2010 Baseline



VOC Emissions from Paint Shops

16% vs 10% reduction goal (kg/veh) achieved 2014



Biodiversity

All mfg sites WHC certified programs, where feasible
49 certified mfg programs vs 91 certified programs goal plus:
14 non-mfg certified programs



Total Waste

40% reduction (kg/veh)



Landfill-Free

93 mfg sites vs 100 mfg sites goal
46 non-mfg sites vs 50 non-mfg sites goal

Biodiversity integrated into Manufacturing Commitments



“Secure Wildlife Habitat Certification (or equivalent) at each GM manufacturing site where feasible by 2020”

GM Biodiversity Program

- ▶ Congruent to UN Goal 15 –
 - ▶ Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss



Vauxhaull, Ellesmere Port, UK – photo, Daryl Heath



Drayton Warehouse, MI USA – photo, Susan Kelsey



San Luis Potosi, México – photo, Susan Kelsey

Top-Down Goals

- ▶ Top-down push – creates cultural change
- ▶ Values biodiversity
- ▶ People learn what it is and how it affects them
- ▶ Teach employees
- ▶ Global focus – management held accountable
- ▶ System approach
- ▶ Country/regional biodiversity alignment
 - ▶ Sites' projects attempt to align with country biodiversity goals
 - ▶ Utilize the Yale Environmental Index
- ▶ Leverage our size



Photo, Kelley Briggs, CCA- HQ, Grand Blanc, MI USA

Started with - Do Anything

- ▶ Pollinator garden
- ▶ Rain garden
- ▶ Educating school children



*Detroit/Hamtramck Assembly Center,
USA, photo Pamela Jamieson*

Sustainability & Business Opportunities

- ▶ Discovered an increase in biodiversity
- ▶ Could save money
- ▶ Make priority
- ▶ Get people involved



*Detroit/Hamtramck
Assembly Center 2005 &
2006, photos Tim Core*

Corporate Manufacturing Commitments

- ▶ Handprint ↑ vs footprint ↓
 - ▶ Positive sustainable business impact vs non-sustainable business impact
- ▶ Net positive biodiversity improvement – can be used to calculate
- ▶ Note biodiversity goal & community outreach work in tandem
- ▶ Team development

Major Construction Projects

- ▶ LEED certification
- ▶ Build in green infrastructure
- ▶ Difficult to fully cost account



GM Milford Proving Grounds – Visitor Center, Milford, MI USA



GM Milford Proving Grounds – Visitor Center,
Milford, MI USA





Employee enthusiasm
Sites with wildlife habitat teams are involved



2016 Wildlife Habitat Calendar

Photo: James S. Smith, GM Global HQ, Renaissance Center,
Detroit, MI USA

January

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|--|--|---|---|--|----------|
| December 27 <i>Eastern Fox Squirrel, Fort Wayne Assembly, IN</i> | 28 <i>Eastern Fox Squirrel, Fort Wayne Assembly, IN</i> | 29 <i>Eastern Fox Squirrel, Fort Wayne Assembly, IN</i> | 30 <i>Peregrine Falcon, GM Tech Center, MI</i> | 31 <i>Peregrine Falcon, GM Tech Center, MI</i> | 1 <i>New Year's Day</i> | 2 |
| 3 | 4 | 5 <i>Christmas Bird Count Ends</i> | 6 | 7 | 8 | 9 |
| 10 <i>Save the Eagles Day</i> | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 <i>Martin Luther King, Jr. Day</i> | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 <i>Indigo Bunting, GM Tech Center, MI</i> | <i>Indigo Bunting, GM Tech Center, MI</i> | | <i>Common Grackle</i> | | <i>Turkey Vulture, Desert Proving Ground, AZ</i> | |

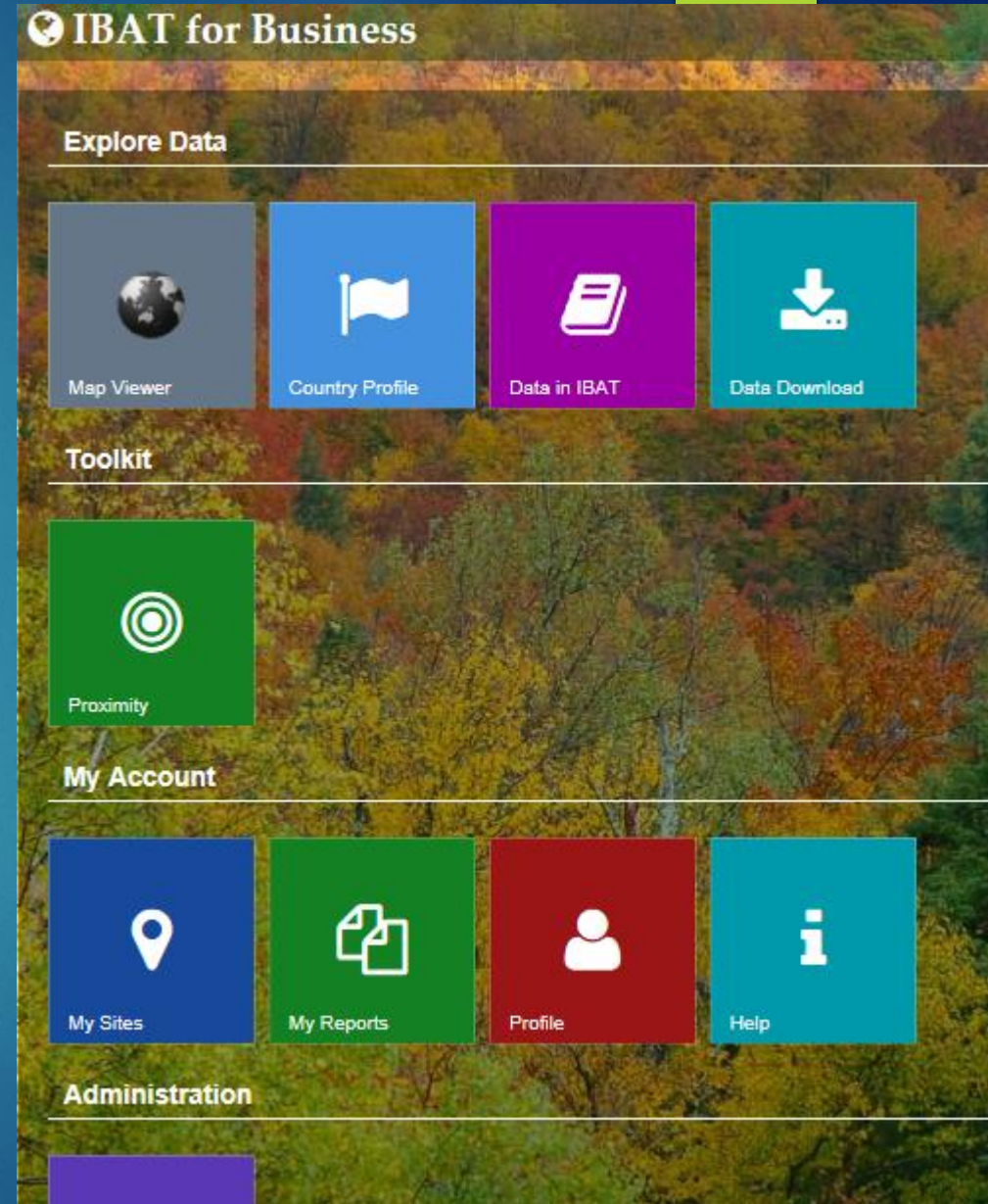
Focused approach

- ▶ Found experts in field; credible with other professional on subject matter
- ▶ Have mission and goals
- ▶ Have good networks for members & are willing to work with business
- ▶ Identification of tools

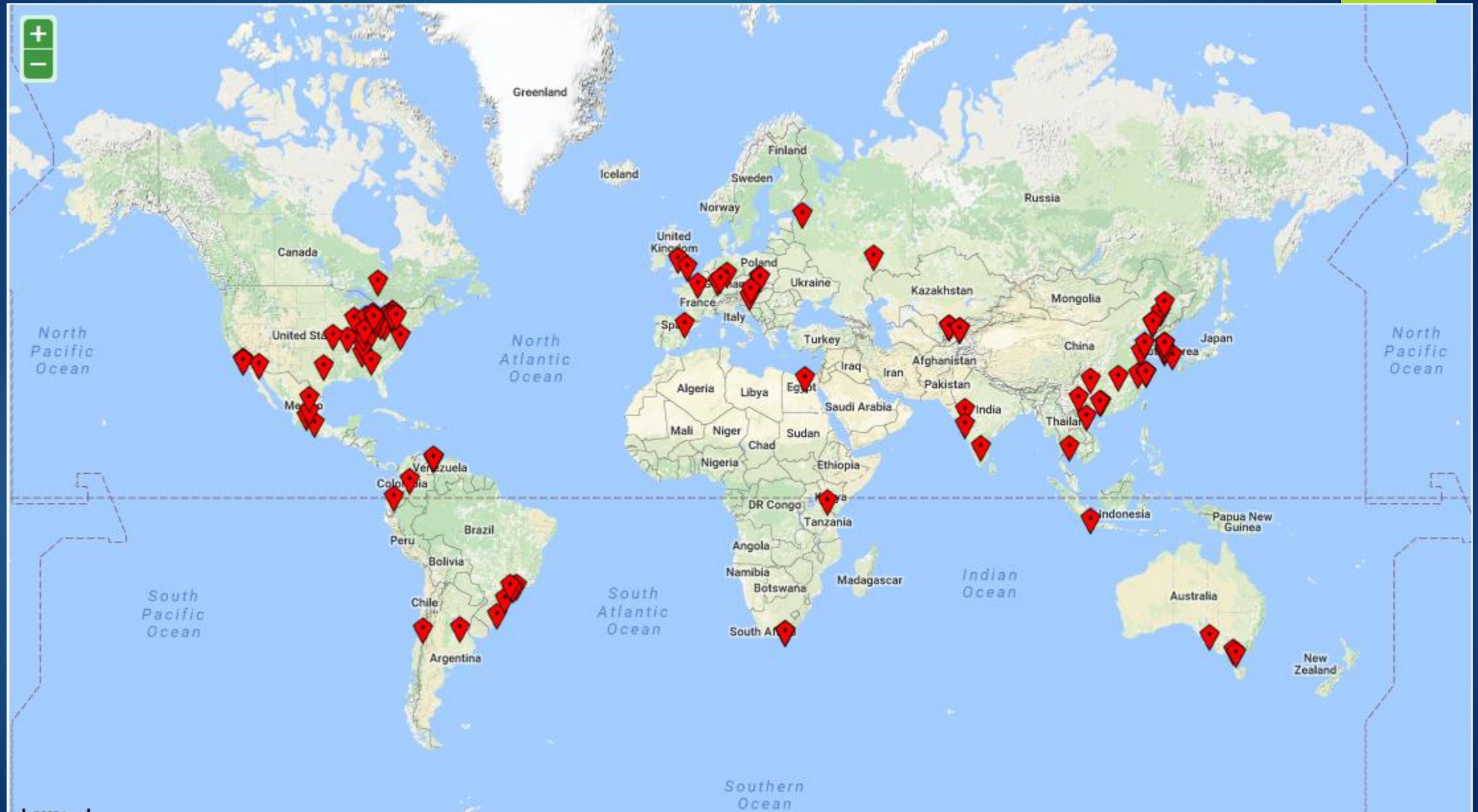


IBAT for Business

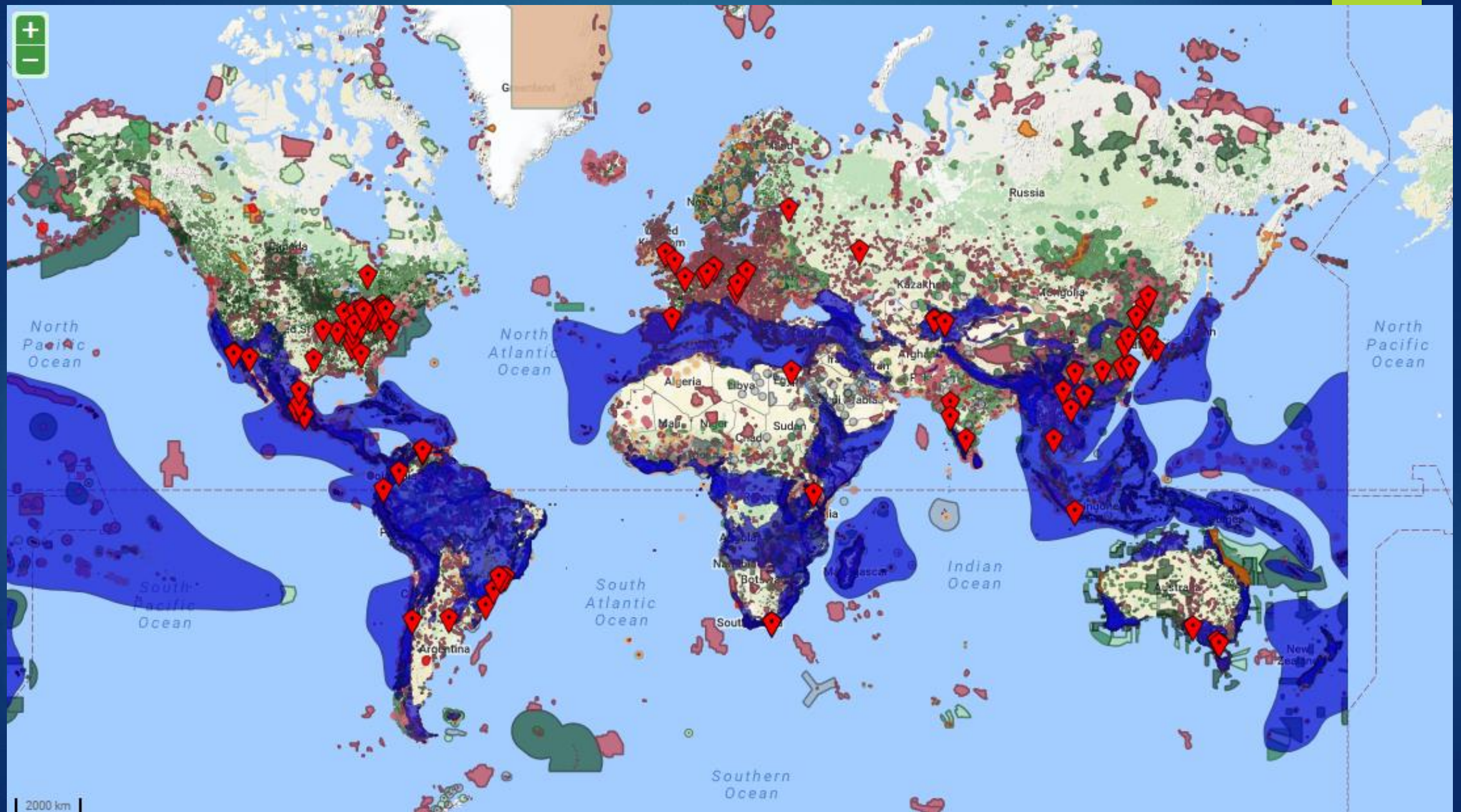
- ▶ Integrated Biodiversity Assessment Tool
- ▶ Gives good information for decision making and report out for GRI/Sustainability Reports
- ▶ Show maps – where GM located around world, where KBAs, and AZE are located



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GM Sites - KBA, AZE, Ramsar, etc.





- ▶ Flyway information – looking to create bird corridors
- ▶ Wildly connected throughout the world
- ▶ Members are local to GM sites – free expert help



Yubu-do Island – Geum-gang Estuary/River, Republic of Korea



Scrap GM Chevrolet Volt battery housing – nesting boxes



Hen & chicks walking in river

- ▶ Endangered scaly-sided merganser – nest box made from scrap GM Chevrolet battery housing. Work done in conjunction with **WWF, Wetlands International, and GM at the Changbai Mountain National Nature Reserve, China**
- ▶ Example of keeping GM manufacturing sites landfill-free while creating habitat for wildlife



Hen & chick jumping out of nest



Wildlife Habitat Council

wildlifehc.org

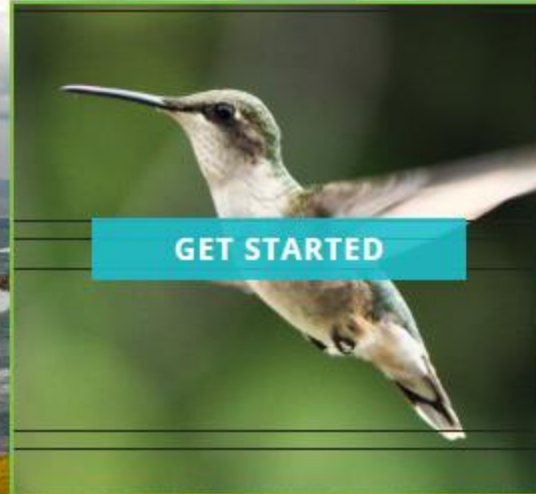
- ▶ Non-profit, non-lobbying
- ▶ Global focused
- ▶ Standards based
 - ▶ Available online to anyone
 - ▶ Developed using subject matter experts
 - ▶ Creating transparency
- ▶ Common currency
 - ▶ Standards create common minimum requirements
- ▶ Country biodiversity focused
- ▶ Site projects – align to biodiversity goals
- ▶ 3rd party certifications
- ▶ Project Requirements
 - ▶ Beyond regulatory requirements
 - ▶ Locally appropriate
 - ▶ Conservation objectives
 - ▶ Value & benefits
 - ▶ Monitoring and documentation



Every act of conservation matters.




OUR IMPACT



GET STARTED

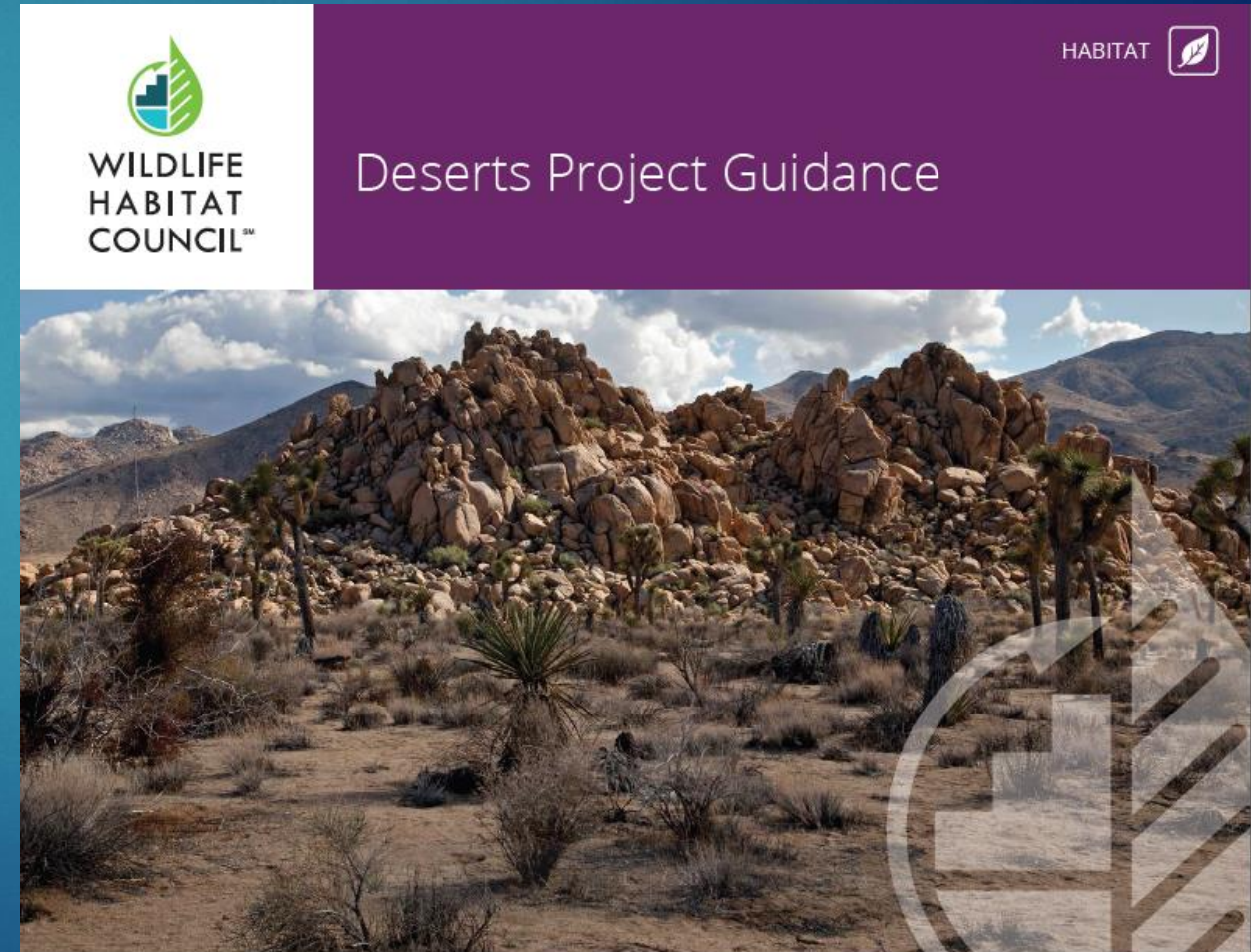
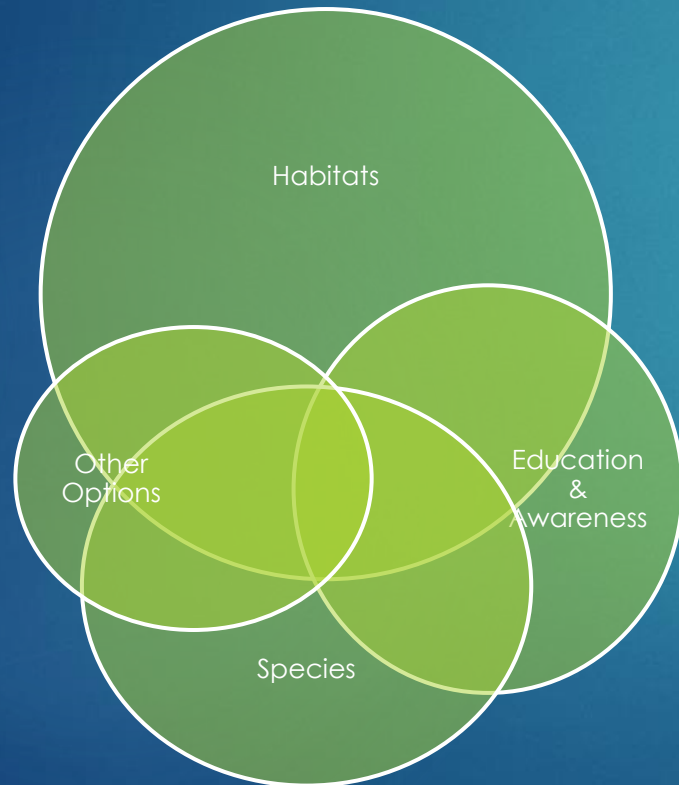


GET CERTIFIED

SCROLL 

Project Guidances

Broken Into Major Categories



| | | | |
|--|--------|----|---|
| Does the project provide conservation or conservation education value? | 12.1.1 | >0 | 0 |
| | 12.1.2 | >0 | 0 |
| Does the project have documented outcomes? | 12.4.3 | >0 | 0 |

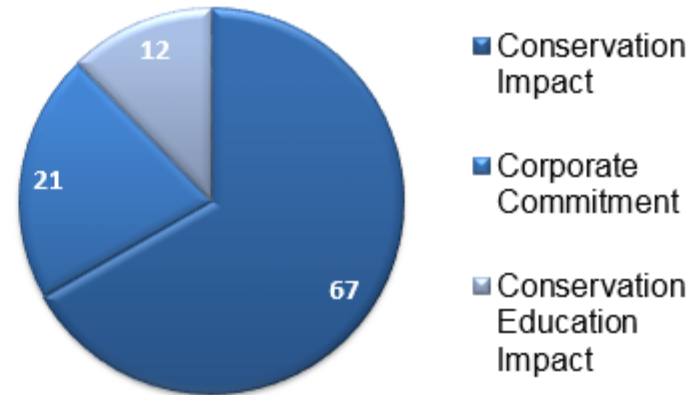
Class = qualifying

Attribute scores

| Q no. | Attribute | Score | Out of |
|--------|----------------------------------|-------|--------|
| 12.1.1 | Size | 0 | 4 |
| 12.1.2 | Duration | 0 | 4 |
| 12.1.3 | Locally appropriate | 0 | 12 |
| 12.Q.2 | Stated conservation objective | 0 | Yes/No |
| 12.2.1 | Previous land use | 0 | 2.1 |
| 12.2.2 | Design Considerations | 0 | 2.1 |
| 12.2.3 | Size of addition | 0 | 1.8 |
| 12.3.1 | Management and maintenance | 0 | 23 |
| 12.4.1 | Baseline documentation | 0 | 3.75 |
| 12.4.2 | Plan or protocol quality | 0 | 6.25 |
| 12.4.3 | Implementation | 0 | 8.75 |
| 12.4.4 | Evaluation of monitoring data | 0 | 6.25 |
| 12.5.1 | Employee participation | 0 | 3.5 |
| 12.5.2 | Employee engagement | 0 | 3.5 |
| 12.6.1 | Partner participation | 0 | 2.8 |
| 12.6.2 | Partner engagement | 0 | 2.8 |
| 12.6.3 | Technical advice | 0 | 2.4 |
| 12.Q.5 | Exceeds regulatory requirements | 0 | Yes/No |
| 12.7.1 | Connectivity | 0 | 5 |
| 12.8.1 | Corporate level commitment | 0 | 1.2 |
| 12.8.2 | Large-scale initiative alignment | 0 | 3.9 |
| 12.8.3 | Existing certifications | 0 | 0.9 |

Impact categories

(% of total score)



For information on the how these scores were calculated, please see wildlifebc.org



GM Sites Certified by WHC

▶ 63 sites

▶ 49 manufacturing sites (54% done); 14 non-manufacturing sites (extra)

▶ 13 countries:

▶ USA

▶ Canada

▶ Mexico

▶ Brasil

▶ Argentina

▶ Colombia

▶ UK - England

▶ China

▶ Thailand

▶ Republic of Korea

▶ India

▶ Uzbekistan

▶ South Africa



WILDLIFE
HABITAT
COUNCILSM

POLLINATOR PARTNERSHIP

Mission -Help people protect pollinators to ensure healthy ecosystems and food security.

- ▶ Signature initiatives include the [NAPPC](#) (**North American Pollinator Protection Campaign**), [National Pollinator Week](#), and the [Ecoregional Planting Guides](#).
- ▶ Get people involved at all levels – government, academia, business, etc.
- ▶ Working to stabilize and improve populations of pollinators in North America
- ▶ We work with them on research at two Ohio GM sites
- ▶ pollinator.org



batcon.org
BAT CONSERVATION
INTERNATIONAL



- ▶ Connects bat research around the world
- ▶ Connects us with local experts
- ▶ Creating bat corridors with them in Mexico
- ▶ batcon.org



Bat house made from GM Chevrolet scrap Volt battery housing – keeping mfg site landfill-free



USBCSD & Pollinator Partnership

(United States Business Council for Sustainability Development)

- ▶ Commissioned Pollinator Study
 - ▶ P2 identified how many USBCSD companies are creating pollinator habitat
 - ▶ What kind of habitat
 - ▶ Native species
 - ▶ Etc.
- ▶ Challenged other companies regarding what they were doing at the annual meeting
- ▶ Explained biodiversity is a unique aspect of a sustainability program

Building Business Value

- ▶ Creates a large quilt of connected patches of flora and fauna
- ▶ Serve and improve the communities where we live and work
- ▶ Keeps employees engaged
- ▶ Uses employees creativity/imagination



Quilt

- ▶ What are you doing to increase biodiversity?





Questions?

David A Monk 2015