

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

What Does Being Sustainable Mean?



If you could change one thing in the world – what would it be?





What does being sustainable mean?

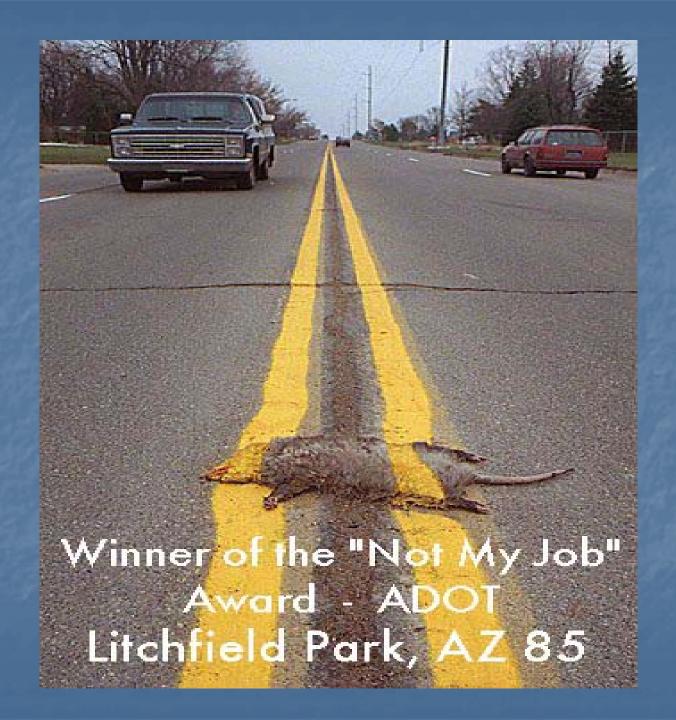




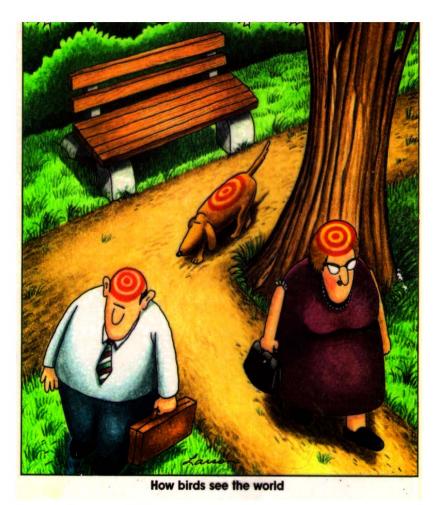
Resistance to Change?

- Unaware of true costs associated with current practices
- Potential impact on product quality
- Worker habits
- Skepticism towards new or emerging technologies
- Many facilities are predisposed to control technologies (proper disposal)
- "If it ain't broke don't fix it"
- "Not my Job"





How Birds See the World!!!



Looking at everyday activities from a different perspective!

Far Side, Gary Larson



The Sustainability Perspective

- Efficiency
- Elimination of waste
- Value creation
- Output velocity
- Process simplification
- Traditional waste hierarchy
- Elimination of production waste
- Redesign for reuse
- Waste diversion from landfill
- Life cycle thinking
- Impact quantification
- Upstream focus redesign for repair, reuse, remanufacturing, recycling
- Material stewardship
- Toxics reduction/elimination

lean thinking

pollution prevention

zero waste

circular economy

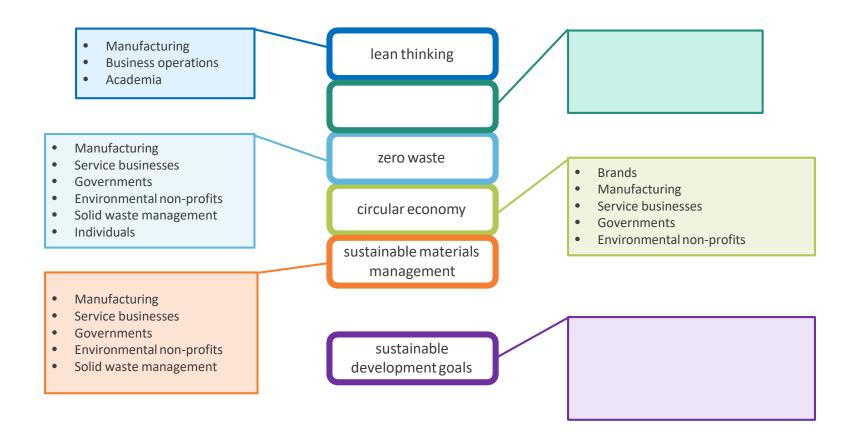
sustainable materials management

- Source reduction
- Hazard reduction
- Exposure control
- Closing material loops
- Upstream focus redesign, repair, reuse, remanufacturing
- New business models to decouple growth from materials
- Design out externalities

sustainable development goals

- Human wellbeing
- Ecological stewardship
- Economic equity

Who is Participating?



Pollution Prevention

- Shifting to focus to Sustainability
- More work with Energy and Recycling
- Using United Nations Sustainable Development Goals as framework for change.
- How can the UN SDGs address the goals of Domicology?



Sustainability

As an example lets look at SDG #11





UN SDG 11

United Nations Sustainable Development Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable

settlements inclusive, safe, resilient and sustainable	
Target	Indicator
5	Proportion of urban population living in slums, informal settlements or inadequate housing
	Ratio of land consumption rate to population growth rate
urbanization and capacity for participatory, integrated and sustainable human settlement	Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically
Support positive economic, social and environmental links between urban, per-urban and rural areas by strengthening national and regional	Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city
Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing	Proportion of financial support to the least developed countries that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient buildings utilizing local materials

Pollution Prevention

- How could we support this goal?
 - 11.1 Support urban revitalization efforts?
 - 11.3 Support equity, potential grants for sustainable planning, support measures to reduce urban sprawl
 - 11.A Integrate population projections and city size consideration into our funding selections and deliverable requirements, work collaboratively with partner municipalities to develop model plans
 - 11.C Perhaps domicology could be applied in developing countries/cities as test cases

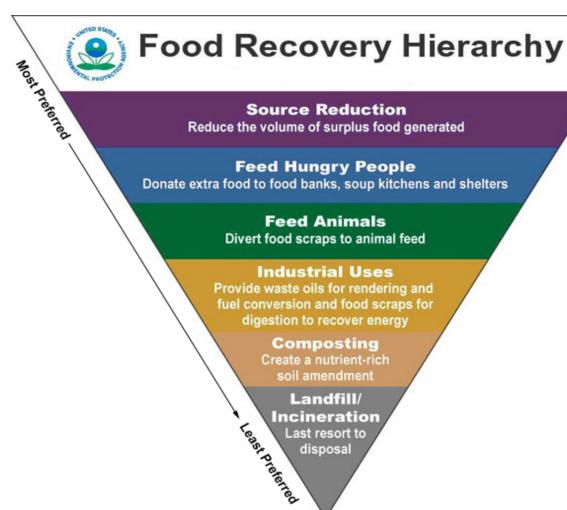
Sustainable Materials Management Unit

Sustainable Materials Management (SMM) is a systematic approach to serving human needs by using/reusing resources most productively and sustainably throughout their life cycles, from the point of resource extraction through material recycling or final disposal. This approach seeks to minimize the amount of materials involved and all the associated environmental impacts, as well as account for economic efficiency and social considerations.

The Sustainable Materials Management Unit focuses on SMM as it relates to waste issues, particularly waste utilization. This aligns with the efforts of the United States Environmental Protection Agency's to address waste issues in the framework of SMM. This also fits with Michigan's 2017 Solid Waste Policy, which recognizes solid waste as a resource that should be managed to promote economic vitality, ecological integrity, and improved quality of life in a way that fosters sustainability.



Food Waste Management







Scrap Tires

- Part 169 of NREPA
- Ensuring proper disposal of Michigan scrap tires
- Cleanup of existing illegal piles
- Inspect collection sites, processors, end-users, and generators





