



Chapter 12

Sustainability



Sustainability

Parks and Recreation Departments are increasingly finding pressure to provide services and maintain their facilities more sustainably for the well-being of their community and the environment. The first step for a Parks Department to adopt a sustainability plan and/or policies would be the formation of a “Green Team” or “Sustainability Team” to establish strong goals and should be part of the Parks Department’s operational decision making process.

In addition, the Team should research utilizing resources that outline environmental initiatives or green practices and can help identify areas for further assessment that impacts the Parks Department, such as energy efficiency improvements.

The Parks and Rec Department should develop an environmental policy focused on the core elements of purchasing, use of resources, energy, waste management, and planning and management.

Another tool for sustainable practices is the Sustainable Sites Initiative (SITES™), which is “a program based on the understanding that land is a crucial component of the built environment and can be planned, designed, developed, and maintained to protect and enhance the benefits we derive from healthy functioning landscapes (ecosystem services). Sustainable landscapes create ecologically resilient communities better able to withstand and recover from episodic floods, droughts, wildfires, and other catastrophic events. They benefit the environment, property owners, and local and regional communities and economies.” (Sustainable Sites Initiative, 2015)

Sustainable Focus Areas

The following is a list of sustainable practices, which use low impact design strategies that can be implemented throughout Munster.



Materials & Recycling

Materials come from natural resources that have been extracted, manufactured, or processed for human use. Once residents have the options to act responsibly with their materials and waste, they likely will. This can improve the environment and the local economy with potential new jobs. The following policies could be adopted, if not already, by Munster Parks and Recreation:

- Hosting recycling events for the community, such as holiday lights, hazardous waste, electronics, drug prescriptions, etc.
- Expand recycling opportunities in the parks with a priority to shelter and picnic areas, as well as active sports fields. Incorporate recycling disposals alongside all standard trash receptacles. This includes a commitment for Munster to manage removals in a timely manner.
- Incorporate recycling educational signage in parks and prepare education notices for the sports affiliates each year.
- Incorporate sustainable/green purchasing language into vendor contracts and specifications.
- Review material management: including the complete lifecycle of materials from manufacturing to purchasing to disposal. This includes selecting products that can be recycled or reused rather than disposed of in a landfill.
- Purchase locally or regionally produced materials and plants. Use a set of guidelines such as EPA's Environmentally Preferable Purchasing (EPP) or GreenSeal.org.
- Use vegetation and reflective materials to reduce the urban heat island and minimize effects on microclimate and on human and wildlife habitat.
- Use low VOC furnishings and paints and low-toxicity cleaning products.

Transportation

To significantly reduce the amount of pollution and greenhouse gas emissions generated each day, the Parks Department should consider implementing:

- Opportunities for improving alternative options, including transit, biking and walking.
- Review bike rack locations at all park sites.
- Update fleet and equipment to include alternative fuel and/or hybrid vehicles. This can be done as part of a Capital Asset Replacement Program strategy.

Energy

Energy conservation is reducing energy consumption through using less of an energy service. Below is a list of ways to reduce the Parks Department's energy consumption and be more energy efficient.

- Purchase Energy Star rated appliances.
- Review the Parks Department's current air filters and convert to MERV 8 rating or better to improve indoor air quality for patrons/ staff and extend the useful life of HVAC systems.
- If new buildings are proposed, they should be sited with an east-west axis, where practicable, to optimize passive solar design and include the use of broad roof overhangs to block midday summer sun.
- Review current heating and cooling systems for energy- efficiency.
- Implement a staff policy to turn off printers, computers, and scanners at night and on weekends.
- Explore solar energy or other renewable energy options both for heating water and providing electricity.

Field/Turf Management

One of the quickest, more affordable and potentially more noticeable practices is how a Parks Department manages one of its largest commodities, turf.

- Make a policy of reducing petroleum based turf chemicals.
- Consider alternative turf applications such as Bio-Solids and Bio-Char for turf fertilization and soil improvements.
- Develop a policy and maintenance schedule that eliminates all lawn waste from being removed from the site.
- Institute a composting program for any waste and lawn clippings produced by the Park Department.
- Institute a policy to further reduce weed control spraying on less active fields and fields that are not in active use seasons to only spot/selective applications.
- Promote pollinator plantings in the park's landscape programs.

Educational

In addition to being a leader in sustainability, Munster could offer programs focused on environmental education and lifestyle choices.

Programs the Town could offer may include:

- Community gardening
- Water conservation
- Greening your home
- Native plant material
- Pollinator planting
- Composting

Water

Water is a limited resource that is essential to all life, and sustainable landscapes are those that reduce water use, improve infiltration and filtration, and promote healthy rivers and lakes.

The following policies could be adopted by the Parks and Recreation Department to conserve and protect our Earth's hydrological functions:

- Reduce imperviousness through the use of permeable pavements.
- Continue to offer a rain barrel program for residents so they are able to disconnect their downspouts from the storm system and reuse the rain water on site.
- Maintain natural drainage courses, and mimic natural systems for stormwater quality control.
- Reduce use of storm pipe for stormwater management.
- Use native plants, and implement natural area restoration and management.
- Avoid development and disturbance near streams and wetlands, and on sites with high risk of flooding.
- Use Green Infrastructure practices such as; rain gardens, constructed wetlands, green roofs, and bioswales, to capture and slowly infiltrate water into the soil or groundwater.

Landscape Architectural Design

The various projects in park design or park redesign have both small and large impacts on the environment. The following guidelines in any landscape architecture project within Munster could be adopted by the Parks and Recreation Department to reduce environmental disruption:

- Improve Tree Diversity by inventorying existing tree species throughout all parks and then planning to introduce less represented tree species. When adding new trees throughout Munster's parks, abide to a ratio of 20:10:5 (no more than: 20% of the same family, 10% of the same genus, and 5% of the same species) to avoid pests and diseases
- Be aware of the selection of materials in all construction projects. Source locally, incorporate composting programs for future soil, substitute carbon-intensive materials for salvaged materials, and utilize reclaimed wood whenever possible.
- Replace outdated park drinking fountains with models that have bottle filling stands. This will reduce wasteful plastic bottles and drive up local demand for reusable bottles.
- Promote conservation of natural areas by requiring impact assessments in development that would potentially disrupt natural habitat for wildlife and native vegetation. Maintain high standards for environmental conservation efforts for developers of open space.
- Refrain from any planting of species deemed invasive by Indiana's DNR
- Although parks operate during daylight hours, some lighting fixtures are present on various sites. Investigate renewable energy practices that can be integrated in the parks to power various existing infrastructure, when possible. The goal should be for 100% renewable energy in Munster's Parks. In other words, harvest the natural forces of wind, water, solar, and geothermal.

Summary

Munster's environmental policy will confirm the town's commitment to leadership and sound use of the town's and its resident's resources in a responsible manner.