

**CITY OF DES MOINES  
ENERGY CONSERVATION AND  
ENVIRONMENTAL ENHANCEMENT POLICY  
(Stewardship Policy)**

**Overall**

This policy outlines a number of principles regarding the City’s stewardship of resources and the environment. This policy fits well with the established Council goal of “Sustainable Green Community – Des Moines will be a leader in setting policies and practicing service delivery innovations that promote environmental sustainability. Des Moines will offer safe, reliable, and convenient transportation alternatives that reduce reliance on automobiles and parking facilities.”

The work to establish specific goals, objectives, and actions to implement Council’s goals is in process. Part of that effort will include the development of specific actions to implement this policy in the context of Council’s Sustainable Green Community goal.

Many areas of the City government already use an environmental approach to decision making. For example, the Parks Department has been a leader in moving municipal buildings to more energy efficient lighting and constructing the first City owned LEED certified building; the Public Works Department has begun to introduce hybrid technology, bio-diesel and other alternative fuels into the fleet. Efforts like these will continue as we find opportunities to use fewer natural resources, lower greenhouse gas emissions, and improve the quality of the environment.

**A Caveat**

Implementation will not be without debate. For example, the policy calls for greater development densities. This will clash with the model of neighborhood development currently in place. At least some of the specific ideas related to energy efficiency and environmental enhancement engender significant policy level debate, locally, nationally, and globally.

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SECTION 1

**GUIDING PRINCIPLES OF THIS POLICY**

The following sections of this policy serve to define the stewardship decision-making process in specific stages of the ongoing management function. This section serves to establish guiding principles regarding stewardship on all properties managed by the City of Des Moines.

The City of Des Moines believes:

1. The health and well-being of people and their cultures; of other species; and of natural ecosystems are interconnected, vulnerable and dependent on each other.
2. Future generations have a right to an environment with at least the same qualities and quantities of environmental assets as present generations.
3. Long-term economic progress and the need for environmental protection must be seen as mutually interdependent.
4. Development must maintain environmental and cultural integrity.
5. Our community shall minimize its contribution to fossil fuel dependence and global warming by promoting energy efficiency programs, reducing energy use and using renewable energy resources.
6. Sustainable design and management practices shall be fully considered and implemented on all facilities, grounds and lands.
7. It is vital to enhance Des Moines' watershed by managing all natural areas in a way that preserves the highest natural ecological value both upstream and downstream from the City. The City will work to integrate its watershed protection efforts into efforts throughout central Iowa.
8. A cost/benefit analysis shall accompany all implementation actions. A good cost/benefit analysis should include not only the financial estimates, but also the reduction in greenhouse gases, reduction in consumption of fuel, energy, and other natural resources, among other possible factors to consider. For example, unlike replacing a standard light bulb with a compact fluorescent bulb there may not be a financial return on green fleet initiatives, but rather a reduction in greenhouse gases and fossil fuel consumption. That is, the investment in a green fleet may not return a dollar savings, but will lead to an improved environment. This will be analyzed in a measurable way before decisions are made to implement any specific idea.

Another measure of cost/benefit has been described as the "triple bottom line". The fundamental idea of the triple bottom line is that when making decisions, the social, environmental and economic impacts are measured. If any of these three areas is

compromised beyond an acceptable level in an attempt to benefit another, the idea is rejected or modified. Thus, an idea that would improve the environment but harm the economy would be rejected. Likewise an idea that improved the economy of Des Moines but harmed the environment would be rejected.

9. Low-cost strategies will be implemented first. These may have varying impacts, but they also have the advantage that, given the structural deficit of local governments in Iowa, may be able to be implemented where higher cost ideas would not.
10. Results must be measured and reported. Only by proving the impacts of these decisions will we learn what works, what doesn't, and how best to proceed in the best interest of everyone in the community.

## SECTION 2

### **STEWARDSHIP: A DEFINITION**

A steward is one charged by another with the safekeeping and sound management of property and resources. The City of Des Moines serves as the public's steward by administering municipal property in a manner that ensures these properties are managed efficiently and will continue to exist as a community resource for the benefit of future generations. In fulfilling its role, the City shall promote energy efficiency programs and the use of renewable energy resources and seek to maximize the value of natural, cultural and recreational resources. A proactive approach to protecting important elements of Des Moines' open space resources serves to provide additional open space as the urban and rural communities of the region continue to grow. Working closely with other municipalities, the federal and state government, public conservation agencies and private protection efforts, the City will work to integrate its efforts into a greater plan to promote renewable energy and energy efficiency initiatives, protect the resource base of central Iowa, and provide economic and recreational opportunities that will not compromise the quality of the environment.

### **SUSTAINABILITY: A DEFINITION**

Sustainability is defined as balancing the fulfillment of human needs with the protection of the natural environment so that these needs can be met not only in the present, but in the indefinite future. The term was used by the United Nations' World Commission on Environment and Development which coined what has become the most often-quoted definition of sustainable development as development that "meets the needs of the present without compromising the ability of future generations to meet their own needs."

## SECTION 3

### **SUSTAINABLE COMMUNITIES: A DEFINITION**

Sustainable communities meet the needs of the present without compromising the ability of future generations to meet their own needs. The interdependent and mutually reinforcing pillars of sustainable communities include the simultaneous consideration of economic development,

social development, and environmental protection. Generally speaking, sustainable communities meet the following criterion:

1. **Transportation:** compact mixed use development reduces distances, and increases transportation choice (e.g., walking, cycling, transit), for travel to work, education, shopping, recreation, entertainment and services;
2. **Housing choice:** expanding housing choices for different age groups, incomes and household sizes allows people to remain in the same neighborhood through different life stages;
3. **Efficient use of public funds:** mixed use, higher density areas make better use of existing infrastructure and reduce demands for new roads and services;
4. **Protect open space and natural areas:** concentrating growth within existing urban areas minimizes land consumption, infrastructure costs and environmental consequences;
5. **Placemaking:** people want to live in neighborhoods that are lively and attractive urban live/work/play environments, with adequate amenities, and that respect the community character, design and historic features;
6. **Shorter commutes and more transportation choices:** locating jobs in regionally-accessible hubs served by transit and with housing nearby allows people to work closer to home or live closer to work.

#### SECTION 4

##### **SUSTAINABLE BUILDING: A DEFINITION**

Sustainable building integrates building materials and methods that promote environmental quality, economic vitality, and social benefit through the design, construction and operation of the built and natural environment. Sustainable building merges sound, environmentally responsible practices into one discipline that looks at the environmental, economic and social effects of a building or built project as a whole. Sustainable design encompasses the following broad topics: efficient management of energy and water resources, management of material resources and waste, protection of environmental quality, protection of health and indoor environmental quality, reinforcement of natural systems and integrating the design approach.

#### SECTION 5

##### **THE BUILT ENVIRONMENT**

It shall be the policy of the City of Des Moines to finance, plan, design, construct, manage, renovate, maintain, and decommission its facilities and buildings to be sustainable. This sustainability will address but not be limited to the following objectives:

1. New or remodeled buildings must be designed and constructed to be energy-efficient-using recognized rating systems as guidelines.

2. Utilize existing buildings and infrastructure instead of developing open space.
3. Design communities to reduce dependence on the automobile and to foster a sense of community.
4. Optimize design to make use of smaller spaces and utilize materials efficiently.
5. Protect and enhance development sites by preserving or restoring local ecosystems and biodiversity.
6. Purchase low-environmental impact and resource-efficient materials.
7. Maximize longevity by designing for durability and adaptability.
8. Design buildings and landscapes that are water-efficient.
9. Build healthy buildings that provide a safe and comfortable indoor environment
10. Minimize construction and demolition waste by reducing, returning, reusing and recycling job-site waste.
11. Reduce heat island effects.

## SECTION 6

### **THE NATURAL ENVIRONMENT**

It shall be the policy of the City of Des Moines to identify, plan and manage the natural environment to be sustainable. This shall include, but not be limited to:

1. Recommending low impact sustainable methods of natural areas restoration, habitat management, facility development and resource recovery as a means of conserving financial resources in the development and management of municipal property.
2. Minimize high maintenance vegetation and invasive species while maximizing biodiversity.
3. Respecting the natural topography, hydrology and biodiversity of proposed development sites to indicate where, and to what level, facility development may take place.
4. Protecting the region's water resources by establishing buffer zones and runoff management strategies for agricultural areas, developed sites, rivers, streams and other bodies of water within and outside municipal properties.
5. Manage natural ecosystems using best management practices for the system diversity.
6. Removing, correcting or containing hazardous waste and controlling dumping according to Federal and State laws.

## SECTION 7

### **PROPERTY MANAGEMENT, ACQUISITION AND DISPOSAL**

In the interest of managing all its property in a manner consistent with this policy, the following strategies will be used for managing, disposing of and acquiring property. Such actions will be

considered on a case-by-case basis with full attention to present and planned future uses established in accordance with the subsections of this policy.

### **1. MANAGING MUNICIPAL PROPERTIES**

- A. Consolidating parcels where contiguous municipal properties are an amalgamation of multiple parcels, Des Moines will seek to consolidate these parcels onto new parcels that more correctly define the land management needs of the city.
- B. Promoting restricting deeds in perpetuity on lands of high natural resource value (endangered plants and animals, watershed protection, flood control, historic sites, irreplaceable recreation amenities, etc.) through the use of conservation easements, nature preserve designations and other appropriate instruments.
- C. Splitting out lots where unwanted property can be disposed of at maximized return.
- D. Describing multiple use parcels where city departments have either expressed present need or can demonstrate planned future needs that do not negatively impact Des Moines natural resources.
- E. Granting easements to other organizations, other city departments, private citizens and corporations on a case-by-case basis and keeping the interests of Des Moines in mind at all times.
- F. Remediating and redeveloping environmentally contaminated sites.

### **2. DISPOSAL OF PROPERTY**

- A. Negotiating exchange or joint management of lands with other city/county departments.
- B. Sale or trade of lands by Des Moines to other public agencies that can demonstrate a need for the property in providing improved services to the public.

### **3. ACQUISITION OF PROPERTY**

- A. Fee simple acquisition of open space is a last resort when condemnation is the only other recourse to acquire lands essential to Des Moines.
- B. Acquisition through grants and sponsorships by foundations, federal agencies and corporations will be pursued.
- C. Donations by landowners and developers wishing to take advantage of tax incentives under Federal Conservation Purposes tax law will be encouraged.
- D. Condemnation of property essential to Des Moines will be used when no other recourse exists and community need for the property is clearly demonstrated through the public input process.

## SECTION 8

### **MODIFICATION OF THIS POLICY**

This policy shall become effective upon its adoption by the Des Moines City Council. As with all other official policies, staff shall endeavor to incorporate the letter and spirit of this policy into the ongoing functions of the departments. This policy serves to support, through planned program implementation, the mission of the City of Des Moines. All future modifications of this policy shall reflect this support by enhancing the City's ability to promote energy efficiency and to improve the environmental quality of Des Moines for the benefit of future generations.

#### **Next Steps and Specific Actions to Implement this Policy**

A Sustainability Team made up of appropriate staff members with some expertise in this field has been appointed. Their task will be to guide implementation steps as we move forward. They will analyze and recommend specific projects to the senior management team in order to implement the Council's Sustainability Goal.

All efforts in this regard will be communicated to Council on a regular basis, or put forward for Council action as specifics require. In this way the City will hold itself accountable for the implementation of the intent of the proposed policy. For example, future changes in City ordinances would be brought to Council, as would any changes in the mission of established Boards and Commissions (such as the Urban Design Review Board, or the Historic Preservation Commission, or the Planning and Zoning Commission), as well as any project with costs of more than \$25,000.

#### **Focus of Implementation Actions for the Next 12 Months (through June 30, 2008)**

The following concepts will be explored, analyzed, and implemented (if appropriate) over the next 12 months:

- Assist the staff team exploring the Council's Sustainable Green Community goal.
- Utilize ICLEI (Local Governments for Sustainability) software to measure greenhouse gas emissions. Benchmark (or create a baseline) of the organization's current energy usage and carbon footprint. A baseline of water quality will also be explored.
- A review of the Capital Improvement projects currently in the CIP to seek opportunities to increase energy efficiency and/or lessen environmental impacts. An example would be the exploration of "cool roof" techniques in the "Municipal Building Re-roofing" project.
- Adopting environmentally preferable purchasing policies such as the use of 30% post consumer waste paper for printing needs.
- Explore the use of tax abatement or other incentives to encourage private development to LEED standards or other green development protocols.
- Explore retro-commissioning buildings to increase energy efficiency.
- Explore alternatives to current yard waste disposal to reduce green house gases.
- Explore the increased use of renewable fuel and other fleet management innovations (E85, 20% biodiesel, hybrid engines, etc.).

- Implement a high-profile website to communicate the work of the City in this area and also what residents can do to reduce their consumption of natural resources and their contribution to global warming.
- Test the use of low or non-toxic paint (low or no VOC paint (Volatile Organic Compound)).
- Implement an employee education campaign with such techniques as turning off lights when not needed and printing on both sides of paper.
- Review building code and other ordinances to minimize code obstacles to green construction projects.

Many other potential actions aimed at reducing our environmental impact will also be explored as we move into the future. Each will have a cost/benefit analysis. Ideas that possess significant impacts with no or low cost will be implemented first.

## APPENDIX A

### **GLOSSARY**

Cultural Assets - These refer to the customs, traditions, and indigenous knowledge that are specific to the community. Language is a cultural asset, as is indigenous intellectual property. Cultural assets are often "intangible" elements that underpin a community. However, the material expressions of culture can generate income and other assets.

Cultural Integrity – Recognizes and protects the indigenous culture, traditions, institutions, and education systems of a sector of society, and balances those, in this case, with environmental objectives. For example, Iowa has an agrarian culture. It is important to maintain that agrarian culture while we strive to achieve our environmental objectives of clean air and water. One objective can not work against the other.

Ecosystem - The term ecosystem is generally understood as to the entire assemblage of organisms (plant, animal and other living beings—also referred to as a biotic community or biocoenosis) living together in a certain space with their environment (or biotope), functioning as a loose unit. Together, these components and their interactions with and relationships to each other form a dynamic and complex new whole, functioning as an "ecological unit", with additional characteristics that can't be found in the individual components.

Environmental Assets - source of environmental services in the possession of local residents

Greenway - A linear open space; a corridor composed of natural vegetation. Greenways can be used to create connected networks of open space that include traditional parks and natural areas.

Heat Island - Heat islands form as vegetation is replaced by asphalt and concrete for roads, buildings, and other structures necessary to accommodate growing populations. These surfaces absorb - rather than reflect - the sun's heat, causing surface temperatures and overall ambient temperatures to rise.

High Maintenance Vegetation - Is defined as vegetation that requires significant manpower and intervention to maintain over the long-term life of that vegetation. Intervention would include irrigation, herbicides and pesticides.

Open Space - Undeveloped land or common areas in a planned community reserved for parks, walking paths or other natural uses.

Watershed - A watershed is a region of land that is crisscrossed by smaller waterways that drain into a larger body of water.

Waterway - a natural or man-made place for water to run through (such as river, stream, creek, or channel)