

Resource Conservation

Background

Problems and Opportunities

Ensuring the availability of resources for our present needs as well as for future generations is a cornerstone of creating a sustainable community. Air and climate, water, energy, materials and human resources are all fundamental to supporting our daily lives. Inefficiencies in consumption of resources and the processes used can create scarcities and result in waste and pollution needing containment or disposal. Information on the monetary savings that can be realized by conservation and recycling is identified in this presentation, *Going “Green” Can Put Your Business In the “Black”*, sponsored by the Green Omaha Coalition.³⁸

The Resource Conservation Advisory Group adopted a sustainable approach to the use of resources that puts a priority on optimizing--making the most of the resources that we use--along with conserving--using less of our resources. The Four Principles of Natural Capitalism as described by the Rocky Mountain Institute³⁹ inspire this approach.

The need for water conservation may not seem immediately evident when Omaha has access to seemingly abundant natural water resources such as the Missouri River and the Platte River. However, less demand for water improves the ability of the community to be resilient in case of fluctuating supply, and reduced demand also reduces energy needed for treating water and for moving water and wastewater around. For homes and businesses, water conservation strategies can save on the cost of water.

According to the Omaha area’s Metropolitan Utilities District (MUD), nearly 197,000 customers use an average of 87 million gallons of water per day. In the metro Omaha area, the average residential customer’s water use dropped from 110,000 gallons per year in 2007 to 108,000 gallons per year in 2008 and to 96,000 gallons in 2009 and 2010.⁴⁰

The Resource Conservation Advisory group recognized the responsibility of the local community in reducing greenhouse gas emissions and other air pollutants that can have a far-reaching and long-term effect. The EPA estimate of carbon dioxide emissions from fossil fuel combustion in Nebraska for 2007 is 43.87 million metric tons.⁴¹ The U.S. Department of Energy has calculated generic estimates for carbon dioxide emissions from individual homes and transportation modes.⁴²

Improving efficiency in the use of energy saves money in the long-term. Diversity in energy sources can improve the stability of supply by hedging against changes in one sector. Renewable energy sources foster the community’s resilience in the face of future scarcities and price fluctuation and may increase and benefit the local economy.⁴³

Nebraska is ranked 6th in the U.S. for wind energy potential but has lagged behind other states in wind power output.⁴⁴ Solar and geothermal potential is also fairly high.⁴⁵

Waste reduction can conserve resources, reduce pollution and help cut waste disposal and handling costs because it avoids the costs of recycling and disposal in a landfill. Purchase of environmentally rated products, choosing durable products, and avoiding excess packaging and unnecessary purchases all contribute toward an overall reduction in waste.

In 2008, Omaha's residential solid waste program saw 12% of materials (measured by weight) going into recycling, 18% as yard waste, and the remaining 70% of waste going to the landfill as garbage.⁴⁶ (This does not include waste stream information from commercial, construction, industrial, etc.)

Local job growth and other economic benefits have been identified in studies on the costs and benefits of transforming current models of energy and resource consumption into a more sustainable economy. The Rocky Mountain Institute, a group focused on transitioning the economy through efficiency and sustainable energy sources, describes an approach for community prosperity.⁴⁷

Many job opportunities are based on applying current skills to new or expanded applications. For example, many jobs in the green energy economy would result from energy efficiency retrofits--making energy efficiency improvements to existing buildings--which would provide localized jobs, while others would result from increased manufacturing and installation of wind, solar and geothermal energy systems. Technological innovation is also an area of interest that may increase economic opportunities, especially in partnerships with higher education institutions.

One study prepared for the U.S. Conference of Mayors estimated that for the Omaha-Council Bluffs metropolitan area green jobs could increase from an estimate of 1,337 jobs in 2006 to 10,582 jobs by the year 2038.⁴⁸

Issues and Directions

Input resulting from public meetings and Resource Conservation Advisory Group members identified the following issues and directions:

- ❖ Our approach should focus on extending the life of resources and on making full use of the resources we use (with an objective to minimize or eliminate waste).
- ❖ Omaha should plan strategically to increase its resilience in the face of higher and more uncertain petroleum prices ("peak oil"-- the time when oil that has been easy to produce is outstripped by demand, resulting in higher and more volatile prices).
- ❖ A regional approach is needed for energy and resource planning; partnerships across political, governmental, and private jurisdictions will be most effective.
- ❖ Costs and benefits of conservation and renewable energy should take a longer-term view; we need cost preparedness and fiscal responsibility.
- ❖ Alternative energy resources such as solar, wind, and geothermal should be maximized as great economic opportunities; local production of energy will keep money in the local economy.
- ❖ Ordinances and covenants that are roadblocks to alternative energy systems and energy efficiency need to be revised (e.g., solar and wind systems, green roofs, building orientation for passive heat and light, etc.).

- ❖ Water conservation should target the use of water for supporting yards and landscapes; measures could include the use of xeriscape and native plants, conversion of conventional lawns to water-conserving turf and ground cover plantings, and the use of water sensors in lawn irrigation systems.
- ❖ Waste of materials should be minimized and community participation in the recycling program needs to be increased; commercial waste disposal and recycling of materials should be tracked and managed.
- ❖ A greenhouse gas emission goal needs to be targeted for the community.

Concepts

The Resource Conservation Advisory Group used the following concepts to develop the overall statement, measurements, goals, objectives, and strategies contained in the following sections:

- ❖ Meet energy demand by continuously improving efficiency and by encouraging the supply of diversified, renewable and sustainable energy systems.
- ❖ Use a variety of educational, technological and policy solutions to conserve and protect the high quality of water resources for future generations.
- ❖ Take actions toward continuous improvement of air quality, measuring and reporting progress to the community, and taking measures to make the community resilient in the face of climate change.
- ❖ Accomplish zero waste by promoting appropriate purchasing and diverting materials toward reuse and recycling.
- ❖ Promote market transformation and workforce development, improvements in existing businesses and in attracting new business, and providing leadership and behavioral change toward the benefit of the entire community.

Resource Conservation Overall Statement

Omaha will be a thriving community providing an exceptional quality of life centered on an unwavering dedication to resource conservation. Omaha will accomplish this vision by:

- ❖ Conserving and protecting the high quality and adequate supply of water resources.
- ❖ Continuously improving air quality, reducing greenhouse gas emissions, and mitigating the risks of climate change, while also using these changes to the community's advantage.
- ❖ Meeting energy demand by continuously improving energy efficiency and encouraging the supply of renewable and sustainable energy systems.
- ❖ Aggressively working toward becoming a zero-waste-to-landfill community by conserving resources and by maximizing the use and reuse of resources.
- ❖ Becoming a leader in green economies by utilizing the creativity, productivity and ingenuity of the community's human capital.

Measurements

Progress towards this vision will be measured by tracking relevant indicators and pursuing interim targets towards long-term objectives. These goals represent community-wide targets that will be achieved through collaboration with the City of Omaha and community organizations, businesses, and individuals. With this in mind, Omaha will:

1. Reduce greenhouse gas emissions by:
 - a. Reducing energy use per capita by 20 percent between 2010 and 2020, and continually reducing consumption by 20 percent every ten years thereafter.
 - b. Increasing the use of renewable energy to 20 percent of energy used 2010 and 2030 and continually shifting the source of energy production to renewable by at least 20% every 10 years thereafter.
2. Reduce total water use per capita by 20 percent between 2010 and 2020, and continually reducing consumption by 20 percent every ten years thereafter.
3. Pursue improvements in waste reduction and diversion by:
 - a. Increasing waste diversion through recycling and composting by 20 percent between 2010 and 2020, and continually reducing generation 20 percent every ten years thereafter.
 - b. Reducing the quantity requiring disposal by 20 percent every ten years beginning in 2010 through increased conservation practices, increased diversion through recycling and composting and other practices shown to be technically and economically viable.
4. Incrementally increase percentage of spending on eligible items defined by a comprehensive Environmentally Preferable Purchasing (EPP) program by 2 percent annually.

Resource Conservation Goal Summary

WATER

Conserve and protect the high quality of water resources for future generations through educational, technological and policy solutions.

AIR AND CLIMATE

Develop and implement action-oriented strategies that pursue continuous improvement of air quality, reduce greenhouse gas emissions, incorporate climate change resilience and measure progress regularly; report these findings to the community to stimulate the appropriate action(s).

ENERGY

Meet energy demand by continuously improving efficiency and by encouraging the supply of diversified, renewable and sustainable energy systems.

MATERIALS: PURCHASING, WASTE/RECYCLING

Maximize the use of standardized processes that promote environmentally-preferred, appropriate purchasing and that aggressively divert materials from the landfill toward a zero waste goal that also promotes the concept of rethink, reduce, reuse and recycle.

HUMAN RESOURCES: GREEN JOBS, TECHNOLOGY

Promote market transformation, new business attraction, existing business improvements, workforce development, behavior and leadership in order to maximize the social, environmental, and economic benefit of resource and energy conservation.

WATER

Conserve and protect the high quality and adequate supply of water resources for future generations through educational, technological and policy solutions.

Objectives:

1. Develop community-wide educational/informational programs that improve water quality through Best Management Practices (BMP's), water conservation, and stormwater management.
 - 1.1. Work with MUD and other environmental professionals to develop, promote and disseminate self-audit materials.
 - 1.2. Maintain a legacy of working with the next generation to ensure a deeply-rooted education in water conservation.
 - 1.3. Establish an ongoing program to educate the public about stormwater management practices.
 - 1.4. Work with the development community to change city codes to increase density and revise impervious coverage requirements.
 - 1.5. Create partnerships among the utility companies, the City, universities, community college, State Energy Office, industry professionals, homebuilders and others to develop educational materials and programs for homeowners.
 - 1.6. Educate and promote a community appreciation of the benefits of using suitable native species and NEWANIP.
 - 1.7. Promote existing resources that explain how to install and maintain rain gardens (including the use of native plants), rain barrels, green roofs and cisterns.
 - 1.8. The City will ensure that all storm drains are labeled to discourage dumping.
 - 1.9. Promote actions that work to minimize or prevent activities that adversely impact existing natural water courses.
2. Promote and implement indoor water conservation.
 - 2.1. Promote the use of low water use appliances, low flow and dual flush toilets, and no flush urinals.
 - 2.2. Research and revise codes to promote the use of low flow fixtures, appliances and other water-based systems.
 - 2.3. Promote the watertight integrity of all water systems.
 - 2.4. Support water use fees that are incentive/disincentive based with an emphasis on an impact rate for an increase in consumption.

3. Promote and implement outdoor water conservation.
 - 3.1. Develop and promote lawn and green space management practices that reduce water consumption and protect water resources.
 - 3.2. Reduce the demand for water by promoting and adopting conservation measures.
 - 3.3. Limit the use of plant materials that require extensive irrigation.
 - 3.4. Encourage the design and redesign of residential landscapes that require less irrigation with a goal of eliminating the use of potable water for residential irrigation.
 - 3.5. Expect the City to encourage the use of smart irrigation controls that sense soil moisture and then shut off when the soil reaches the appropriate moisture content.
 - 3.6. Develop a plan for conversion of high maintenance turf to low maintenance native landscaping in public right-of-way and City of Omaha property where appropriate. Update the City's "Standards for Urban Landscaping," the urban design components of the city's zoning code, "Green Streets for Omaha," and the "Streetscape Handbook" to ensure consistency among them.
 - ❖ Collaborate with wildlife biologists, botanists, ecologists, landscape architects, landscape designers, horticulturists and urban foresters in this effort.
 - ❖ Include the use of NEWANIP as part of government, corporate and institutional campuses.
 - 3.7. Support water use fees that are incentive/disincentive based with an emphasis on an impact rate for an increase in consumption.
4. Promote and implement stormwater conservation and cleanliness.
 - 4.1. Reduce stormwater runoff and improve water quality by using native or ecologically-adapted plants with deep root systems characteristic of native prairie in landscaping and by preserving/restoring vegetated buffer zones along waterways.
 - 4.2. Promote the principles of conservation landscaping in public/private spaces.
 - 4.3. Maintain or improve water quality in the metropolitan area's rivers, lakes, streams, and wetlands to meet or exceed state and federal regulations.
 - 4.4. Use NEWANIP plantings in landscapes of public buildings, and continue to work with other entities in developing demonstration projects that promote the use of these plants.
 - 4.5. Work with landscape architects, landscape designers, botanists, horticulturists and nurseries/plant suppliers to develop a palette of native species recommended in urban landscapes and develop design guidelines for property owners.

- 4.6. Amend the weed control code to allow for planting NEWANIP.
- 4.7. Encourage partnerships that provide an annual Native Plant Sale in the Omaha metro area:
 - ❖ Plan and coordinate in partnership with public and private resources;
 - ❖ Pair with education and landscaping information; and
 - ❖ Include activities such as workshops, demonstration projects, and celebratory events.
- 4.8. Utilize techniques such as rain gardens, green roofs, and open drainage systems to improve water quality.
- 4.9. Encourage the use of non-toxic landscape chemicals and natural pest controls.
- 4.10. Manage the use of fertilizer along with the efficient use of irrigation.
- 4.11. Seek legislation from the Nebraska Legislature to enable the establishment of an equitable stormwater utility system that would provide a dedicated and sustainable source of funding for stormwater management and would include a system of credits or fee adjustments to incentivize the construction and maintenance of stormwater BMP's on private property.
- 4.12. Encourage the use of permeable paving surfaces for drive, parking and sidewalk areas.
- 4.13. Ensure that city staff is adequate for the required storm water site plan reviews and on-site inspections.
- 4.14. Ensure that adequate funding and resources are dedicated to effectively implement all aspects of the Omaha Stormwater Management Plan, as required under the National Pollutant Discharge Elimination System (NPDES) permit.
5. Encourage the reuse of water (gray water) and harvesting rain water to reduce water usage in general, but particularly during the summer.
 - 5.1. Expect the City to set a positive example for water conservation through its actions in building and maintenance, public facilities and green space.
 - 5.2. Encourage the use of gray water irrigation systems and remove barriers that limit their use on individual or community-scale residential sites.
 - 5.3. Take steps to minimize the use of potable water for residential toilets.
 - 5.4. Install, when possible, "re-usable" permeable paving systems.
 - 5.5. Expect the City to provide for rainwater "harvesting" in the city code and encourage the retention and reuse of storm water on site.

AIR AND CLIMATE

Develop and implement action-oriented strategies that pursue the continuous improvement of air quality, reduce greenhouse gas emissions, incorporate climate change resilience and measure progress regularly; report these findings to the community to stimulate the appropriate action(s).

Objectives:

1. Improve local air quality.
 - 1.1. Inventory key indicators and impacts associated with local air quality, including critical factors that affect local air quality and the local social costs of air pollution.
 - 1.2. Benchmark performance and best practices to make informed decisions to improve local air quality, referencing the EPA's National Ambient Air Quality Standards, to minimize environmental, social, and economic risks.
 - 1.3. Maintain or improve air quality compliance with the National Ambient Air Quality Standards to continue designation as an "Attainment Area."
 - 1.4. Evaluate proactive regional strategies to reduce ground-level ozone such as stage two vapor recovery system.
 - 1.5. Explore alternatives to reduce seasonal winter air particulates by using an alternative to sand for snow and ice removal and/or increasing street sweeping.
 - 1.6. Transition the City's vehicle fleet to ultra low emission vehicles.
 - 1.7. Encourage pedestrian activity, mass transit, bicycles and other alternative modes of transportation.
 - 1.8. Continue to update the city codes to incorporate the latest provisions for energy efficiency and healthy buildings.
 - 1.9. Ensure that city codes provide for adequate ventilation as outlined in documents such as the "Healthy Homes Principles."
 - 1.10. Ensure adequate ventilation and allow for fresh air exchange in weather- tight structures.
2. Reduce greenhouse gas emissions.
 - 2.1. Inventory key indicators and impacts associated with greenhouse gas emissions.
 - 2.2. Maintain greenhouse gas inventory for all Scope 1 and Scope 2 emissions, using latest national standards and methodologies for carbon accounting and latest available data.
 - 2.3. Register green house gas emissions with Carbon Disclosure Project cities and programs.

- 2.4. Publish a greenhouse gas inventory report that provides detailed information regarding emissions sources by sector and establish an “action plan” to meet reduction goals.
 - 2.5. Benchmark performance and best practices to make informed decisions to reduce greenhouse gas emissions.
 - 2.6. Pursue greenhouse gas reduction by focusing on major emissions sources, including buildings (stationary combustion and electricity use), transportation, fugitive processes (solid waste, wastewater, etc.), and other major emissions sources.
 - 2.7. Develop proactive strategies for climate resiliency. (Establish policies and practices of the city related to weather, water supply, stormwater, etc.)
 - 2.8. Reduce greenhouse gas emissions from buildings through improved energy efficiency (including natural gas and electricity), development of onsite renewable energy, and elimination of atmospheric ozone depleting compounds (ODCs) in fire suppression and cooling systems.
 - 2.9. Reduce transportation-related greenhouse gas emissions 30% by 2030 through increased use of mass transit, use of alternative fuel vehicles, and reduction of vehicle miles traveled to decrease automobile emissions.
 - 2.10. Continue to reduce greenhouse gas emissions from fugitive process emissions through the capture and combustion of methane gas from solid waste landfills and wastewater treatment systems, as well as by encouraging actions by local businesses and industry to reduce or eliminate fugitive emissions from any processes that emit any of the six Kyoto Protocol gases.
 - 2.11. Continue to work with waste management haulers and local landfills to encourage the capture and combustion of methane gas.
 - 2.12. Upgrade existing wastewater treatment systems to improve anaerobic digesters to increase the capture and combustion of methane gas for electricity generation.
 - 2.13. Leverage existing voluntary programs to assist local organizations to calculate their greenhouse gas emissions, setting reduction targets and communicating progress.
 - 2.14. Expand the installation of LED streetlights and traffic signals to reduce energy use and associated greenhouse gas emissions.
3. Provide community-wide education specific to air and climate issues.
 - 3.1. Collaborate with agencies/organizations such as the Douglas County Health Department, MAPA and the American Lung Association to establish and implement programs that educate about the dangers of air pollutants and changes in local air and climate quality. Also establish an outreach program that changes human behavior to reduce energy use in the home.

- 3.2. Establish tangible actions for citizens to reduce their residential green house gas emissions by reducing energy use and increasing energy and fuel efficiency.
- 3.3. Work with local and national organizations that promote energy efficiency to educate homeowners.
- 3.4. Create partnerships among utilities, the City, universities, community colleges, State Energy Office, industry professionals and homebuilders to develop educational materials and programs for homeowners.
- 3.5. Develop a sustainability guide for homeowners and residential industry professionals, and make it available through a variety of channels.

ENERGY

Meet energy demand by continuously improving efficiency and by encouraging the supply of diversified, renewable and sustainable energy systems.

Objectives:

1. Provide necessary education specific to energy efficiency and renewable energy sources.
 - 1.1. Provide information about the benefits of solar, wind, biomass and other renewable energy sources.
 - 1.2. Promote innovative home monitoring systems and educational programs using new technologies, such as smart phone applications, dashboard technologies and social networking sites, to allow for real-time feedback and information exchanges on energy saving activities and techniques.
 - 1.3. Work with local utility companies and institutions to facilitate the distribution of information from their demonstration projects.
 - 1.4. Create partnerships among the utility companies, the City, universities, community college, State Energy Office and industry professionals to develop educational materials and programs for the community.
 - 1.5. Use actual energy savings information/results to educate the community.
 - 1.6. Work with Omaha Public Power District and private owners to establish demonstration electric charging facilities at strategic locations when straight electric or plug-in hybrids reach a threshold level.
 - 1.7. Create a marketing campaign that encourages people to acquire and use transportation appropriate to the nature and length of their specific trips.
2. Reduce the demand for energy.

- 2.1. Encourage utility companies to continue to provide and expand financial incentives for improved efficiencies. Consider the development of loan programs or reduced rates tied to energy efficiencies.
- 2.2. Establish policies and incentives that make energy conservation easy and attractive.
- 2.3. Require independent life-cycle cost analyses for all City of Omaha buildings valued over \$1 million.
- 2.4. Identify and promote ways that landlords and tenants can benefit from energy saving investments in residential rental properties.
- 2.5. Support OPPD in developing a rate structure that includes time of use incentives.
- 2.6. Plant trees strategically in order to provide shade for buildings during the summer while allowing for the sun to penetrate the building in the winter.
- 2.7. Plant trees to serve as a windbreak during the winter without inhibiting the flow of summer winds through the building. Opportunities for taking advantage of the flow of cool air from a wooded hillside at night should also be considered.
- 2.8. When feasible, consider the use of earth embankments against one or more walls of a building.
- 2.9. Expand the use of low and moderate speed motorized urban vehicles (such as low speed electric vehicles, scooters, electric bicycles, and future technologies), characterized by ultra-low emissions and extremely high fuel efficiency, for appropriate urban trips.
3. Encourage the supply of diverse, renewable and sustainable energy
 - 3.1. Provide incentives for, and encourage the use of, geo-thermal heating and cooling systems.
 - 3.2. Update and enforce reasonable code provisions that balance the protection of solar access with the planting of shade trees.
 - 3.3. Investigate the feasibility for renewable/alternative energy systems in neighborhood and redevelopment plans.
 - 3.4. Provide for renewable/alternative energy systems in common areas of new residential, mixed use/commercial, and industrial development.
 - 3.5. Provide infrastructure for electric vehicles: recharging stations within parking facilities, structures, etc.

- 3.6. Develop and implement regulations that address the use of motor-assisted personal mobility vehicles on portions of the city's active transportation infrastructure (multiple-use pathways, trails, bicycle lanes, and sidewalks). Personal mobility vehicles include Segways, electric bicycles, and very low-emission personal scooters. These regulations should address the size and performance limits of PMV's, compatibility with active transportation modes, types of permitted vehicles, methods of propulsion, tax status, and impact on infrastructure.
- 3.7. Develop a strong transit system identity with a highly positive image. Operate the system with "green," clean, high-image, and attractive vehicles and support facilities, including use of alternative fuels and means of propulsion.
- 3.8. Encourage MAT to convert its fleet to ultra low emission vehicles.
4. Provide for the efficient distribution of energy resources.
 - 4.1. Coordinate with utilities and design professionals to identify opportunities and evaluate the potential for neighborhood/district-scale energy generation.
 - 4.2. Work with utilities to create strategies that will ensure appropriate operation and management of district/neighborhood energy systems.
 - 4.3. Support OPPD in the implementation of smart grid technology. In general, establish a formal ongoing, long-term partnership with utility companies to provide for efficient energy distribution.
 - 4.4. Provide potential incentives to encourage private development of charging facilities and infrastructure for other alternative fuels, such as compressed natural gas, hydrogen, biofuels, and other potential sources.
5. Identify Metro-area vulnerabilities to high energy prices and develop risk management strategies.
 - 5.1. Create a temporary task force to research vulnerabilities to high energy prices and create an Energy Action Plan (EAP).
 - 5.2. Implement recommendations of the task force to create an economically, environmentally and socially-resilient community in the face of rising energy prices.

MATERIALS: PURCHASING, WASTE/RECYCLING

Maximize the use of standardized processes that promote environmentally-preferred, appropriate purchasing and that aggressively divert materials from the landfill toward a zero waste goal that also promotes the concept of rethink, reduce, reuse, and recycle.

Objectives:

1. Implement an Environmentally Preferable Purchasing (EPP) program through City/County coordination.

- 1.1. Adopt the Environmental Protection Agency's Comprehensive Procurement Guideline (CPG) program to "close the loop" and promote the use of materials recovered from solid waste in order to contribute to the demand of recycled-content products. Categories include: Construction Products; Landscaping Products; Nonpaper Office Products; Paper and Paper Products; Park and Recreation Products; Transportation Products; Vehicular Products; and Miscellaneous Products.
- 1.2. Develop environmentally preferable purchasing standards for chemical products – including janitorial, fleet maintenance, and building maintenance – with the goal of using products with the least impact on workers, residents and visitors, and on the environment. These standards should be used to objectively evaluate chemical products against both chronic and acute human health risk (carcinogens, neurotoxins, flammability, pH, etc.), environmental risks (endocrine modifiers, persistence bioaccumulative toxins, etc.), and general waste criteria (packaging considerations).
- 1.3. Develop a list of specifications and/or approved products recognized as "green products" by the City of Omaha, including categories such as, but not limited to: Automotive Equipment & Supplies; Automotive Vehicles; Batteries; Building Materials; Computer Equipment; Copiers, Printers, Faxes, Scanners; Electrical Contact Cleaners; Food and Foodware; Fuel, Lubricants, Oil; Furniture; HVAC Cleaners; Janitorial Cleaners; Janitorial Papers; Landscaping Products; Lighting (bulbs/lamps, ballasts, fixtures); Office Paper & Supplies; Paint/Graffiti Removers; Paint Thinners; Paints; Pest Management; Toner Cartridges; Water Dispensers; and Wood.
- 1.4. Develop a City procurement policy that prioritizes cost-effective purchase of EPEAT registered products, such as desktop computers, laptops, workstations, and computer monitors.
- 1.5. Support the development of a local Green Business certification program to help communities identify and support businesses that meet minimum requirements for environmental performance.
- 2.6. Create and emphasize incentives to reduce raw material use.
- 1.7. Ensure that capital improvement projects include the use of materials and techniques that can be efficiently maintained; minimize or contain environmental impacts; avoid disturbance to unusual resources; and make maximum use of sound environmental management practices.
2. Facilitate the "rethink, reduce, reuse and recycling" of putrescible materials through best management practices of environmental and economic impacts of waste management. Minimize their disposal to landfills and ensure the use of proper disposal techniques.
 - 2.1. Conduct a feasibility study for the curbside pickup of putrescible material, composting the material, and then selling the compost for private use. If a public centralized compost recycling system isn't feasible, incentives should be provided for a private, entrepreneurial system.

- 2.2. Conduct a regional feasibility study to work with restaurants, food distribution companies and retail food stores to identify economical and environmentally-beneficial ways to manage food waste, such as composting and energy generation.
- 2.3. Local government should promote individual composting of putrescible material through education.
- 2.4. Ensure that any food composting activities follow strict guidelines so that the activities do not create more environmental problems than they solve.
- 2.5. The City should work with the State Department of Environmental Quality and the Douglas County Health Department to establish and enforce any food-composting guidelines.
- 2.6. Establish and implement a fee for curbside garbage removal to provide a mechanism to incentivize waste minimization and landfill diversion.
- 2.7. Communicate to citizens the benefits of recycling and generating less waste.
3. Facilitate the “rethink, reduce, reuse and recycling” of nonputrescible debris, including electronic materials. Minimize their disposal to landfills and ensure the use of proper disposal techniques.
 - 3.1. Encourage recycling in public and commercial places.
 - 3.2. Encourage city residents to utilize the curbside recycling that is available to them.
 - 3.3. Establish economically-feasible solutions for glass recycling.
 - 3.4. Establish and provide financial and regulatory incentives for sustainable initiatives, including building material, packaging reuse and recycling.
 - 3.5. Encourage the reuse of building materials and fixtures from buildings slated for demolition.
 - 3.6. Develop a city-wide building material recycling program that results in the recycling of 100% of all waste building materials by 2020.
 - 3.7. Develop programs for the recycling and/or disposal of non-reusable construction materials such as obsolete windows, broken drywall, crushed plaster, old cellulose insulation, etc.
 - 3.8. Work with those who currently recycle electronic devices to develop a brochure in order to disseminate information about the proper disposal of electronic devices and the hazards of improper disposal. Drop-off sites should be listed in the brochure.
4. Use technology and conduct research to recycle and to find other uses for waste materials, including classified material.

- 4.1. Promote and participate in a Waste Exchange Program to turn one company's waste into another company's raw material.
 - 4.2. Encourage manufacturers to reduce waste and improve efficiency by correlating input with output.
 - 4.3. Utilize the reuse of material as an economic development tool.
 - 4.4. Encourage and support research to quantify and standardize the macro and micro measurement of waste.
 - 4.5. Continue to collect data on the residential wastes that are managed under city waste collection, processing and disposal contracts.
 - 4.6. Continue to work with members of the Omaha-Council Bluffs Metro Area Planning Agency to review and implement the Regional Integrated Solid Waste Management Plan and to gather data to document progress in meeting or exceeding the landfill diversion goals established in state law and those contained in this Master Plan Element.
5. Establish marketing campaigns that will educate and effectively change human behavior to “rethink, reduce, reuse and recycle.”
 - 5.1. Challenge and change the disposable product ethos.
 - 5.2. Provide education and incentives to encourage proper recycling. Also create a website to help disseminate this information.
 - 5.3. Partner with environmental organizations, community stakeholders and civic leaders to produce a comprehensive list of materials that can be reused or recycled. (e.g., consumer goods, building materials, paints, etc.).
 - 5.4. Work with school officials and organizations to ensure a deeply-rooted educational system.

HUMAN RESOURCES: GREEN JOBS, TECHNOLOGY

Promote market transformation, new business attraction, existing business improvements, workforce development, behavior and leadership in order to maximize the social, environmental, and economic benefit of resource and energy conservation.

Objectives:

1. Attract businesses that facilitate a green economy.
 - 1.1. Create a task force to establish business incentives that attract and increase sustainable jobs that reinforce the strategies and objectives of the entire Environmental Element.

- 1.2. Encourage business opportunities that arise from implementation of the strategies identified in the Environmental Element to be implemented by local businesses and entrepreneurs using innovative solutions.
2. Encourage business leadership in a green economy.
 - 2.1. Establish eco-literacy programs for all business sectors in order to raise awareness of changes that will aid in the shift toward a green economy.
 - 2.2. Partner with local organization(s) to establish a metrics-based green business certification program that recognizes businesses for implementing sustainable business practices such as reducing greenhouse gas emissions, conserving water, and diverting waste from landfills.
 - 2.3. Collaborate with local organizations to develop a city-wide directory of credible “green” service providers based on reputable product certification programs.
 - 2.4. Establish a prioritized construction permitting system that expedites building permit review for projects that include measurable features of sustainability.
 - 2.5. Encourage local businesses and community organizations to engage employees in sustainability efforts by implementing workplace recycling programs, providing incentives for using alternative forms of transportation, and educating employees on sustainable business practices.
 - 2.6. Encourage development of local businesses that create viable markets for recoverable and recyclable materials.
 - 2.7. Provide public recognition for businesses that proactively achieve sustainability targets.
3. Ensure the availability of a workforce that understands a green economy and is qualified for green jobs.
 - 3.1. Collaborate with agencies/ organizations such as the Chamber of Commerce and Metropolitan Community College to develop a workforce for the job opportunities that result from energy conservation retrofits and green jobs.
 - 3.2. Work with businesses, universities, community colleges, high schools and other educational institutions to establish business and training partnerships to help meet the demand for green job employees.
 - 3.3. Educate the public on the local, national, and global aspects of a green economy, specifically detailing the concepts of externalities, sustainable return on investment, product stewardship, and market transformation.
 - 3.4. Encourage the development of a trade ally network to support energy efficiency projects.