City of Oshkosh

SUSTAINABILITY PLAN 2019

SUSTAINABLE OSHKOSH 2020

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The original Sustainability Plan was approved by the City Council on May 22, 2012. The original document was revised by the Sustainability Advisory Board over a year and a half period from 2017-2019. The updated Sustainability Plan was approved by the Common Council on March 10, 2020.

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Opposite - Oshkosh Riverwalk - Courtesy of Sue Panek

EXECUTIVE SUMMARY

In 2007, the Oshkosh Common Council signed the U.S. Mayors Climate Protection Agreement and re-instituted the disbanded Energy & Environmental Advisory Board (now named the Sustainability Advisory Board or SAB) to advise the City Manager and Council on specific energy and environmental issues. In 2008, the board held its first meeting, the City joined the International Council for Local Environmental Initiatives (ICLEI) and planned for the City's first Sustainability Plan.

Planning Process

A Sustainability Plan Steering Committee was established in 2009 with the Planning Services Division of the Community Development Department directed to guide the process. Planning Services assembled and chaired the Steering Committee with representatives from the community (citizens, Chamber of Commerce, Oshkosh Area School District, University of Wisconsin-Oshkosh, and Wisconsin Public Service), and City boards (Landmarks Commission, Plan Commission, Administrative Services, Transportation, and Parks).

The Steering Committee looked at Sustainability Plans of comparable communities such as Eau Claire, La Crosse, Green Bay, Middleton, Madison and Stevens Point. The Committee was introduced to the Natural Step process, and the American Planning Association Policy Guide on Planning for Sustainability. Using these tools, committee members drafted ten chapters which were given to the SAB and City staff for review.

The Steering Committee evaluated recommended changes, incorporating the input into a final draft document in August 2011. The SAB approved the draft document on June 6, 2011, and forwarded to the Common Council for a workshop with the Steering Committee, SAB, and Plan Commission on August 30, 2011. Council directed staff to solicit additional comments from the public and other advisory boards and to consider how to reconcile the Plan with other City Plans.

A public open house was held in December 2011, and the plan was reviewed by the Storm Water Utility Board, Chamber of Commerce Government Affairs Committee, Advisory Parks Board, Traffic Review Board, Board of Health, Landmarks Commission and the Transit Advisory Board. Comments were reviewed and incorporated into the February 2012 draft which was forwarded to the Council on March 13, 2012, for another workshop with the Steering Committee and SAB. The Council forwarded the document to the Plan Commission for a recommendation, stressing the importance of the development of an implementation plan for the action items. On April 3, 2012, the Plan Commission approved the Plan as an independent document, not an amendment to the Comprehensive Plan, and reiterated the importance of an implementation plan with a cost analysis for the action items. On May 22, 2012, the Council approved the Oshkosh Sustainability Plan.

Plan Format

Each chapter begins with an introduction to provide definition for the issue and to give local context. An objective is stated, followed by sets of policy recommendations. Policies were chosen primarily for actions the City has the power to carry out. However, since this is a community plan, the City is not necessarily the only or best agent to carry out a recommended action. The Plan also states when action or leadership should be the responsibility of another entity (such as the county, state, or an institution) or group (such as individuals or businesses), and to be open when the potential actors are determined.

Recommendations are phrased as action statements, with recognition that they cover ranges of difficulty, expense, time required, and public concern. The recommendations are meant to stimulate innovation and provide guidance to decision makers. They are not precise prescriptions to solve problems, but as a group they suggest priorities and directions for the City and residents.

Action Plan

The last action of the Steering Committee was to work with City staff to identify items that could provide the City with an Action Plan of specific short-to-medium-term projects. Some of the projects were already planned or in progress, but clearly address recommendations in the plan. Other Action Plan items were selected to give the City some stretch goals to prove their ability to lead by example. In 2017, the SAB undertook the process of updating the original 2012 Sustainability Plan that has been the Board's progress guide. The 2017 process was intended as a five-year update to reflect the City's progress on sustainable initiatives to date. The City has accomplished or advanced many goals from the original plan, so the SAB saw the update process as an opportunity to revise the Plan goals, account for technological advancements, and create new action items to continue to advance sustainability.

During the process, each board member revised one or two chapters based on the City's progress and status. Relevant information was added to each chapter's introduction, and goals and action items were revised to reflect the City's current position as well as trends throughout the State.

After revision, the entire Board had the opportunity to review each Chapter at Plan Update workshops. Staff then compiled the Chapters into a single plan document for Board review. The Sustainability Advisory Board approved the updated plan at the August 5, 2019 SAB meeting. The updated plan was sent to the Plan Commission for review and recommendation at the March 3, 2020 Plan Commission meeting. The City Council reviewed and adopted the plan at the March 10, 2020 Council meeting. This updated plan continues to serve as the basis for ongoing Sustainability goal planning in the City of Oshkosh.

Courtesy of Sue Panek

INTRODUCTION

The sustainability plan for San Francisco begins with a challenging but honest question:
"Sustainability is a word you have to spell to people over the phone. How can there be a community plan based on a word that is not in common use?"

For the City of Oshkosh, the answer is not simple, nor the path direct. The City hosted two years of education, debate, staff development, and report drafting by a Sustainability Plan Steering Committee. City staff, citizens, organizational representatives and civic leaders came to the table with a mix of professional experience, common sense, questions, concerns, and enough goodwill to see the job to completion. The time span included orienting new City planning staff to think about the future of the city during a time of great uncertainty about the direction of our planet, country, and state.

The Comprehensive Plan is the place we list and integrate our best ideas and vision for the future. An early decision by the committee was that a community plan based on sustainability make its first entry as an amendment to the Comprehensive Plan. This decision recognized that the people of Oshkosh need time to grasp ways that sustainable approaches will change, or possibly, conserve their community. Ideally, sustainability should simply become the way things are done in Oshkosh.

Defining Sustainability

A first step in defining sustainability for a city is to decide what should be sustained. The Steering Committee's list of priorities follows:

1. Energy production from renewable resources
2. Local food production, sales, and consumption
3. The City's natural resources
4. A safe and healthy atmosphere
5. Responsibly managed waste facilities
6. A safe, healthy, engaged, and diverse community
7. Safe, efficient and environmentally sound transportation
8. A local economy that attracts new businesses and encourages existing businesses to balance profit, people, and planet
9. Development patterns and buildings that support these goals
10. Cost-effective, socially responsible and environmentally sound governmental practices to meet community needs.

This list captures the balance between the three pillars of sustainability: (1) the human population, (2) the economic systems developed by the human population, and (3) the physical environment that supports life and economic systems. Balance between three major components of our world, especially our cities, is necessary. This trio goes by many names: People-Profit-Planet, Triple Bottom Line or Societies-Economies-Ecosystems. Finally, the time element of sustainability requires finding ways that this balance continues into the future. A short version combining balance and time is commonly phrased as:

Sustainability is meeting the current environmental, social and economic needs of our community while ensuring the ability of future generations to meet their needs.

The Sustainability Advisory Board does not claim the power to see the future, but past and current trends provide some guidance. Many recommendations of "sustainable" practices are attempts to slow or halt unsustainable practices -- those that lack balance and those we do not believe can be continued long into the future. Some of the recommendations we publish in 2019 may turn out to lack resiliency, but this plan was written with the faith that a safe, healthy, diverse, educated population supported by a stable economy and intact environment will find ways to fulfill our goals.

GOAL AND OBJECTIVES

Goal: Improve the quality of life in Oshkosh by incorporating sustainability practices to meet the environmental, economic and social needs of the present without compromising the ability of future generations to meet their own needs.

Objectives

Atmosphere: Provide a safe and healthy atmosphere for people, nature, and planet.

Economic Development: Bolster the local economy by attracting sustainable businesses and green-collar jobs, and encouraging existing businesses to become more sustainable.

Energy: Foster energy conservation and local energy production from renewable resources.

Environmental Conservation: Protect and enhance the City's natural resources.

Government: Lead by example and foster sustainability policies and actions for cost-effective, socially responsible and environmentally sound governmental practices to meet community needs.

Land Use and Development: Guide and promote sustainable City-wide development patterns and incorporate sustainable features into buildings and grounds.

Local Food: Promote local food production, sales and consumption.

Managing Waste: Promote waste management awareness and reuse of materials, increase the number of items recycled, reduce initial consumption, and reduce the amount of material diverted to landfills.

Safe and Healthy Community: Promote healthy living, civic engagement, cultural and ethnic diversity, and provide a safe and healthy community for our citizens.

Transportation and Mobility: Enhance mobility alternatives to the automobile; design safe, efficient and environmentally sound transportation infrastructure; and connect to other local and regional networks.

Opposite - Courtesy of Sue Panek

1

ATMOSPHERE

The atmosphere includes the air we breathe, the sounds we hear, the odors we smell, the greenhouse gases that keep the planet habitable, weather systems that deliver water, and the high stratospheric ozone layer that protects us from harmful ultraviolet sunlight. People and cities can overload this atmosphere with pollutants (e.g., toxins, smog, allergens, noise, additional greenhouse gases, and ozone-depleting chemicals) that diminish our health, harm wildlife, damage agriculture and structures, lower property values, and present new risks from changing climate.

Atmospheric pollution creates local and distant problems. Local effects in and near Oshkosh include indoor air pollution as people spend most of their time indoors; noise pollution from vehicles, trains, construction equipment, power tools and other human activity; air pollution from factories, buildings and motorized vehicles and small engines; and air pollution carried in from other cities (e.g. acid and mercury pollution of local waters and fish from coal-fired plants). Climate change may also be impacting Oshkosh in subtle ways, as Wisconsin has seen warmer winters, more precipitation, longer growing seasons, and shorter lake ice seasons. Air pollution from Oshkosh also contributes to global climate changes stressing other parts of the world, particularly for societies less affluent and able to adjust, and ecosystems less resilient than ours. The City of Oshkosh recognized these issues with a 2007 resolution to approve the U.S. Mayors Climate Protection Agreement (Resolution 07-262) and a 2008 resolution to adopt the International Council for Local Environmental Initiatives (ICLEI) Five Milestones for Climate Mitigation (Resolution 08- 295).

Courtesy of Sue Panek

Air quality has been improving in Oshkosh. Wisconsin Department of Natural Resources publishes data online for an "Air Quality Index" based on ground-level ozone for Appleton and Fond du Lac (the closest sites to Oshkosh). For 2007- 2009, about 90% of our days were ranked "Good" (the top category); with the other 10% reduced to "Moderate" level of health concern. Since 2003 we have not recorded any days that were "Unhealthy for Sensitive Individuals," and 1988 was the last year we experienced "Unhealthy" days.

Over the last 10 years of monitoring, an increase in toxic air emissions has occurred. The Environmental Protection Agency (EPA) Toxic Release Inventory (TRI) shows 61,200 lbs. of TRI-covered chemicals in 2017 were released into the atmosphere in Oshkosh, up from 41,600 lbs. in 2007 and 19,500 lbs. in 2003. Three facilities in the community are primarily responsible for the release of these chemicals, which are primarily ozone (74%), toluene (13%), and xylene (8%).

Indoor air pollution has seen steady improvement as well. Public areas have been cleaner with tightening of rules on tobacco smoke in state buildings, followed by a citywide smoking ordinance, and the 2010 implementation of a state law. Workplace air quality has been improved by federal regulations and monitoring. Based on its geology, Winnebago County is listed by the EPA as "Moderate Potential" for harmful levels of radon, a naturally occurring, underground, radioactive toxin, with recommended testing of indoor spaces to determine if ventilation needs improvement.

ATMOSPHERE OBJECTIVE

PROVIDE A SAFE AND HEALTHY ATMOSPHERE FOR PEOPLE, NATURE, AND PLANET

POLICIES

AIR QUALITY IMPROVEMENTS

1. Collaborate with local companies emitting air pollutants, exploring ways to continue to improve their pollution reduction practices and technology.
2. Continue to collaborate internally to improve both city bus services and bicycle access on main roads so-as to reduce automobile-related pollution.
3. Facilitate the reduction of vehicle idling by constructing more roundabout intersections in place of stop lights and signs, considering no-idling signs at bridge and rail crossings, and continuing the idling education campaign with the Oshkosh Area School District.
4. Mandate city officials include air pollution impacts as part of the assessments carried out when expanding infrastructure or considering annexation.
5. Consider revisions to ordinances against odor-producing sites and activities while ensuring existing ordinances are properly enforced.
6. Promote the city's tobacco-free parks rule, approved by the Advisory Parks Board in 2018.
7. Promote tobacco-free events and festivals policies on city property and throughout the community.

INDOOR AIR QUALITY

1. Ensure local agencies are appropriately enforcing state and local regulations regarding indoor tobacco smoke, combustion products, molds, and radon.
2. Continue to encourage the purchase of indoor living plants in municipal buildings to reduce indoor air pollution.
3. Strengthen clean indoor air policies by expanding the definition of "smoking" to include any lighted or heated tobacco or nicotine product, including electronic smoking devices that produce an aerosol or vapor.

NOISE POLLUTION

1. Develop guidelines for citizens to petition for quiet zones, seasons, or times (e.g. Sunday mornings in warmer seasons).
2. Continue to review noise ordinances and their application with respect to sources (i.e., autos, motorcycles, trains and boats, airplanes and events), updating as technology advances.
3. Explore opportunities to strategically deploy noise-reducing barriers (e.g. along Highway 41).

GREENHOUSE GAS "SINKS"

1. Encourage the citizenry to plant trees, flowers, and brushes that will act as a natural greenhouse gas sinks that will absorb carbon dioxide.
2. Continue to plant trees on easements in order to maximize the urban forest cover.
3. Encourage use of local plant materials (e.g. wood, straw, composites, bioplastics) during construction (e.g. by removing outdated restrictions in building codes).
4. Collaborate with developers to minimize topsoil erosion during construction and landscaping.

PUBLIC AWARENESS

1. Educate the community about local and indoor air pollution issues, noise pollution, and how air pollution is contributing to global climate change. Include advice about how individuals can reduce their pollution contributions.
2. Educate the public about air quality data available online from federal and state regulatory agencies, as well as any greenhouse gas inventories conducted by the city.
3. Periodically use city social media accounts to alert the citizenry on days with substandard air quality in order to create awareness; suggest actions individuals can take to mitigate the occurrence of such days.
4. Educate the public about regulations for private use of fireworks and explosives.
5. Educate and alert the public about the potential dangers of paints, glues, caulks and other materials with high levels of volatile organic compounds (VOCs), as well as flame retardants, hazardous cleaning products and other chemicals that may negatively impact air quality.

2

ECONOMIC DEVELOPMENT

Since the adoption of the Oshkosh's 2012 Sustainability Plan, demand has increased for new sustainable products, services, and jobs. Oshkosh is increasingly showing signs of this "green economy." We continue to attract sustainable industries. These industries work with the environment and involve environmentally friendly products or services. We have builders constructing sustainable buildings, food vendors supporting sustainable agricultural practices, and a sustainable university at UW-Oshkosh. The installation of solar panels at the First Congregational Church is an excellent example of local investment in renewable energy.

The community has seen more corporate responsibility to society and the environment. Major companies such as Oshkosh Corporation and Silver Star Brands have established their own teams intended to help them become more sustainable. The Aurora and Affinity (Affinity is now Ascension) medical facilities were at the forefront when the 2012 Sustainability Plan was adopted and remain so today. International companies such as Wal-Mart and McDonalds, are leaders in sustainability worldwide. Winnebago County recently adopted a resolution to become a member of the PACE Wisconsin Commission. PACE Wisconsin assists developers by providing funding options to incorporate renewable energy into their projects. We have continued to see state supported programs like Focus on Energy helping businesses reduce their energy use. In the face of such activities, equipping Oshkosh as a green business center makes good financial sense.

Opposite - Interior rendering of Oshkosh Corporation Global Headquarters - Courtesy of Oshkosh Corporation

ECONOMIC DEVELOPMENT OBJECTIVE

BOLSTER THE LOCAL ECONOMY BY ATTRACTING SUSTAINABLE BUSINESSES AND GREEN COLLAR JOBS, AND ENCOURAGING EXISTING BUSINESSES TO BECOME MORE SUSTAINABLE

POLICIES

SUSTAINABLE ECONOMIC PLANNING

1. Add clean technology to Oshkosh's targeted growth sectors.
2. Identify products and sectors for a sustainability-related manufacturing and production niche in Oshkosh.
3. Conduct a needs assessment of green job demand.
4. Inventory existing job training programs and link them to information provided in the green jobs needs assessment.
5. Work with the Oshkosh Area School District, University of Wisconsin-Oshkosh, Fox Valley Technical College, and University of Wisconsin-Extension to bring together partners to grow the green collar industry.
6. Develop a strategy to secure available government and private funding to grow the industry.
7. Conduct a market analysis to determine the potential for a "green" business incubator in the city.

GREEN COLLAR JOBS

1. Partner with the Greater Oshkosh Economic Development Corporation (GO-EDC) to create and offer business incentives to attract green-collar companies.
2. Outreach to local sustainable industries and offer special bonding or government funding options.
3. Establish creative financing strategies for local sustainable businesses.
4. Continue pursuit of green building practices for new construction and renovation.
5. Partner with the Chamber of Commerce, Chamco Inc., and New North Inc. to develop a marketing piece aimed at attracting industry within the sustainability sector.
6. Market the City to sustainable technology businesses.

7. Market businesses that reduce dependence on fossil fuels, do not use toxic chemicals, exceed clean air and clean water standards, and employ sustainable practices such as not using plastic straws and Styrofoam.
8. Connect businesses to use by-products of other processes or whose wastes can be used as raw materials for other industries.
9. Work with businesses to maintain and/or revitalize, restore, or improve the natural terrain, drainage and vegetation, minimizing disruption of natural systems.
10. Connect businesses that reuse processed water or make use of solid waste for materials or energy production.
11. Examine and improve the Home Occupation section of the Zoning Ordinance if possible to further encourage home-based businesses that reduce travel needs.

PROMOTING GREEN CAREERS

1. Work with the Oshkosh Area School District, Fox Valley Technical College and University of Wisconsin-Oshkosh to ramp up education, training and counseling for careers in sustainability.
2. Continue the City's collaboration with the UW-Oshkosh Quest III and Environmental Studies programs.
3. Examine City departments to determine opportunities for students to intern and advance sustainable practices in City operations.

BUYING LOCAL

1. Market local businesses and products to strengthen our economy.
2. Create a Buy Local promotional campaign similar to the State's "Something Special from Wisconsin" program.
3. Educate residents about the importance and benefits of supporting local businesses.
4. Continue efforts to increase local government purchasing of local products.
5. Develop tools to connect local suppliers with businesses, consumers, and government.
6. Promote the sale of local food and drink at events.
7. Encourage the development of local shops to foster a distinct Oshkosh identity.
8. Research and publish a local green business directory to include green-collar companies and companies with improved sustainability.
9. Encourage local artists to work with businesses to display their products.
10. Support businesses and non-profits offering products and services from people with disabilities, in local institutions or with other social needs.

TRAVEL GREEN WISCONSIN

1. Help the Oshkosh Convention and Visitors Bureau attract and expand business-related eco-tourism, such as those related to waterways, biking, and other outdoor activities.
2. Encourage businesses and facilitate the process to increase participation and certification in the Travel Green Wisconsin program, a voluntary program providing opportunities to be recognized as a green business.
3. Update the existing "Making Your Event Sustainable" brochure that exists for event planners.
4. Work to attract more sustainability-related conventions and events to Oshkosh.

TRIPLE BOTTOM LINE

1. Promote and educate institutions and businesses to measure their success not only by financial profit, but by environmental and social performance as well. Called "Triple Bottom Line" (the Planet or Natural Capital, People or Social Capital, and Profit or Economic Capital), this accounting approach has been endorsed by the United Nations and International Council for Local Environmental Initiatives (ICLEI) as a bona fide technique to measure corporate and governmental sustainability.
2. Compile a list of companies in the region to show other companies the value of employing triple bottom line.
3. Encourage local businesses to adopt sustainable accounting practices by leading by example and sharing the city's successes.
4. Work with all levels of educational institutions to develop a green curriculum.
5. Support the Public Library's efforts to build resources regarding green practices.
6. Collaborate with the Chamber and local colleges to hold an annual conference to promote sustainability.
7. Promote the Wisconsin Department of Natural Resources' Green Tier program which supports environmentally innovative companies who go beyond compliance with minimum regulatory standards while improving their bottom line. Affinity Health Systems is a Green Tier 1 corporation.
8. Continue to participate in the Green Tier program, attend yearly meetings, submit annual reports, and select goals from the Green Tier Scoresheet annually to pursue.

COMMUNITY SUPPORT

1. Continue to support programs for housing, transportation, education, work, and social networks to improve the economic status of people in need.
2. Continue to provide the Community Development Block Grant (CDBG) funds to support social services.
3. Work with service agencies such as Habitat for Humanity and Advocap to find the best locations and buildings.
4. Help groups coordinate events, for collecting donations, fundraising, enlisting volunteers, and educating the public about opportunities and services.
5. Consider a consortium to apply for federal assistance for new opportunities, emergencies, disaster relief, faith-based initiatives, etc.
6. Assist with efforts to create a permanent warming shelter and ensure adequate facilities for the homeless.
7. Promote the availability of food pantries, resale shops, transportation and human services at various outlets and on the city's sustainability website.

CONSUMER EDUCATION

1. Encourage consumers to make the best purchasing decisions by providing information about what to look for when trying to make environmentally and socially responsible selections.
2. Establish venues for disseminating information to consumers on environmental product labeling.
3. Create partnerships with area businesses to assist in informing consumers on environmentally and socially responsible choices.

QUALITY OF LIFE

1. Preserve and Protect City's Natural Resources
2. Develop public/private partnerships to fund quality of life assets.

PUBLIC/PRIVATE PARTNERSHIPS

1. Identify / develop funding sources
2. Partner with existing businesses and stakeholders.
3. Develop and complete targeted and specific economic development plans.

Habitat for Humanity - Oshkosh, Oshkosh Healthy Neighborhoods, and the City of Oshkosh partnered with area volunteers to carry out Rock the Block for the first time in 2019. Volunteers assisted in various curb appeal projects to enhance the neighborhood appearance in the Sacred Heart Neighborhood. Photograph courtesy of Habitat for Humanity - Oshkosh.

City of Oshkosh

OSHKOSH HEALTHY NEIGHBORHOODS

ONEOSHKOSH
OUR NEIGHBORHOODS ENGAGE

ADVOCAP

Oshkosh / Winnebago County Housing Authority

Habitat for Humanity® of Oshkosh, Inc.

The city and several community partners including Habitat for Humanity, Oshkosh Healthy Neighborhoods, the Oshkosh / Winnebago County Housing Authority, and Advocap partner together to carry out the ONE Oshkosh initiative.

3

ENERGY

Energy comes in various forms. Some sources are widely available and renewable such as the sun or wind. Other sources are less accessible, such as fossil fuels like coal, oil, natural gas or radioactive minerals that need to be extracted from the parts of the earth where they occur. Modern industrial societies use very large amounts of energy to heat and cool buildings, provide lighting, produce food, transport people and goods, run machines, and provide communications.

Cities need to import energy for their concentrated human populations. Transporting energy via roads, rail, ships, pipelines or wires takes energy, land and money and carries environmental risks. A more sustainable city would get more of its energy locally. The term "energy independence" has been coined to cover both import reduction and development of domestic energy sources.

According to the U.S. Energy Information Administration:

- *32.8% of all energy use as of 2016 in Wisconsin is attributed to the industrial sector, followed by transportation (24.4%), residential (22.5%), and commercial (20.2%).*
- *The majority of electricity in 2017 is generated by coal-fired power plants (55%). Meanwhile, only 9.3% electricity is generated from renewable energies.*
- *The Point Beach nuclear power plant provides 15% of Wisconsin's energy, but is one of the oldest plants currently in operation.*

The state of Wisconsin is not energy independent. The state consumes 1,891 trillion BTUs of energy, but only produces 309.8 trillion BTUs within its borders (nuclear, biofuels, and other renewable). For a state like Wisconsin, which has no coal, oil, natural gas or uranium resources, energy independence is a call to develop state and local energy resources that build local economies. Wisconsin-based renewable energy resources include sun, wind, hydropower, geothermal, and biomass. Shifting away from fossil fuels has the significant benefits of avoiding pollution that negatively impacts health and increases greenhouse gases.

Energy conservation is a beneficial, achievable, and necessary step towards a sustainable energy system. The technical means to improve energy efficiency is available and ranges from simple insulation to complex electronics. Energy conservation should take top priority because the lowering of energy demand makes energy independence easier to achieve because local renewable sources do not have to be as large, while energy cost savings can provide funds for further conservation improvements or new sources.

Opposite Image of Corrim plant with solar panels - Courtesy of Sue Panek

ENERGY OBJECTIVE

FOSTER ENERGY CONSERVATION AND LOCAL ENERGY PRODUCTION FROM RENEWABLE RESOURCES

POLICIES

BUILDINGS

1. Encourage the wider use of ENERGY STAR and other sustainable-labeled building materials, appliances and electronics (e.g., programmable thermostats, lighting fixtures, low-emittance glazed windows, insulation, heating and cooling equipment, washers and dryers, water heaters, office equipment and refrigeration equipment).
2. Continually update city purchasing policies for energy efficient devices and showcase results on city building performance.
3. Partner with state and local agencies to communicate government assistance programs to winterize houses and apartments for eligible homeowners and renters.
4. Coordinate with state and local organizations (e.g., Focus on Energy and Wisconsin Public Service) to promote incentives and assistance for energy conservation projects.
5. Encourage businesses to measure energy performance (e.g. ENERGY STAR Portfolio Manager) and use green building rating systems such as Leadership in Energy and Environmental Design (LEED) (see Land Use and Development section). Advertise community successes and achievements on the City's and/or Sustainability Advisory Board's website.
6. Promote methods and best practices individuals can implement concerning responsible energy usage.

Image of Corrim plant with solar panels and windmills - Courtesy of Sue Panek

OUTDOOR LIGHTING

1. Continue to upgrade outdoor lighting to high efficiency lamps (e.g., street lighting, parks, athletic fields, and Leach Amphitheatre).
2. Develop efficiency standards for an outdoor lighting ordinance for all new construction and existing building lighting retrofits.

RENEWABLE ENERGY

1. Continually monitor technology trends to ensure building codes allow for the development of solar, wind, geothermal, and biomass energy sources, with guidelines to protect public safety and maintain community standards for aesthetics.
2. Identify opportunities for zoning modifications to coordinate and encourage siting for larger facilities, such as factory-scale digesters or "farms" of small wind turbines or solar panels.
3. Encourage businesses and homeowners to work with Wisconsin Public Service, which offers multiple pricing programs designed to help encourage energy efficiency and promote the use of renewable energy.
4. Encourage the use of alternative flex-fuel vehicles in fleets (e.g., city, police, schools, buses and taxis).
5. Raise awareness regarding burning wood for heat, especially that fireplaces and fire pits provide negligible heat with far larger pollution impacts and safety risks than safe and efficient stoves and furnaces meeting Environmental Protection Agency certification standards.
6. Encourage consideration of greenhouse gas released when making fleet purchases/choosing fleet vehicles.

PUBLIC AND BUSINESS AWARENESS

1. Partner for educational purposes with national and statewide groups (e.g. Focus on Energy, RENEW Wisconsin, ENERGY STAR, Energy Center of Wisconsin, Wisconsin Department of Natural Resources, Wisconsin Public Service, Environmental Protection Agency, Department of Housing and Urban Development) and organizations in the community that can provide leadership and resources (e.g. Winnebago County, ADVOCAP, Chamber of Commerce, University of Wisconsin-Oshkosh, Fox Valley Technical College, Oshkosh Area School District, East Central Wisconsin Regional Planning Commission, Oshkosh Housing Authority).
2. Use the Sustainability Advisory Board's website to provide materials that inform residents and businesses about energy conservation and renewable sources, payback times, site assessment, installation, regulations, and listings of energy tax credits or other forms of assistance available from the federal, state, and local governments, power companies and non-profits.
3. Coordinate sales promotions for energy-related products.
4. Use fairs and home shows to promote public understanding of current energy use and affordable first steps, such as light bulb changes and winterizing.
5. Promote seasonal load control programs for residences and businesses that allow the utility to control large appliances and air conditioning systems.
6. Develop demonstrations and tours of projects that help residents and businesses learn about successful strategies.
7. Encourage, coordinate, and collaborate with the business community about energy savings via guaranteed performance contracts, life-cycle payback options, and other programs which lead to greater efficient use of energy.
8. Share seasonal facilities, such as schools, parks, and tourist facilities, to maximize the time they can be in a low- or no-energy mode.
9. Complete the Green Infrastructure Audit for City ordinances.

Corrim plant windmills - Courtesy of Sue Panek

4

ENVIRONMENTAL CONSERVATION

Preserving the water, land, and wildlife in and around the City is critical to quality of life for all who reside there. Lake Winnebago--the largest inland lake in Wisconsin, and one of the largest freshwater lakes in the U.S--provides Oshkosh with drinking water, wildlife habitat, and recreational activities that benefit the economy. However, Lake Winnebago is classified as impaired by the Wisconsin DNR based on criteria in the Federal Clean Water Act. The City authorized Onterra study of 2010 declared the shoreline as an incredibly poor example of shoreland maintenance. The City has since taken on mandatory and voluntary measures to manage stormwater and sewage treatment for pollution control, such as native plantings along the lakeshore, drainage basins, and incentives for residents to use best practices for stormwater runoff on their land.

With its Tree City USA designation, Oshkosh is recognized for its commitment to also meet strict standards for urban forestry management. Trees, native plants, and urban green spaces provide places for groundwater to be soaked up and purified. The trees of the urban forest also absorb and remove other pollutants, such as carbon and sulfur dioxide, ozone, nitrogen oxides, and fine particulates that enter the air from fossil fuels used for buildings and vehicles. The City is also known for its Bird City Wisconsin designation, highlighting the City's support of its large populations of migratory and year-round birds. These birds, along with bats and insects, control nuisance and disease-carrying pests. Together, the water, land, and wildlife of Oshkosh help keep everyone--and everything--happy and healthy.

ENVIRONMENTAL CONSERVATION OBJECTIVE

SUSTAIN AND IMPROVE THE CITY'S NATURAL ENVIRONMENT TO SUPPORT THE LIFE AND ECONOMY RELYING UPON IT

POLICIES

WATERFRONT DEVELOPMENT

1. Update current and future downtown and riverfront plans with stormwater management best practices while also keeping public access a high priority.
2. Continue to enforce erosion and sediment control requirements at construction sites.
3. Continue to support the use of native plantings along the City's lake and riverfronts, encouraging the restoration of more shoreline.
4. Explore creating a center for river and lakes education in the downtown area to attract visitors and promote the value of the resource.

RECREATIONAL WATER SAFETY

1. Encourage continuation of water testing by the Winnebago County Health Department at Menominee Park Beach, posting results publicly on-site and online.
2. Partner with local organizations including the Winnebago County Health Department and DNR to hold informational sessions on local water-quality concerns, such as cyanobacteria ("blue-green algae").
3. Encourage continuation of beach grooming to remove litter and other contaminants from the shore area.
4. Promote responsible boat and personal watercraft use on the water, including noise, speed, wake generation, and potential user conflicts.
5. Raise public awareness on the importance of cleaning boats before and after entering the water to prevent the spread of aquatic invasive species (AIS) through programming such as the DNR's Clean Boats, Clean Waters program.
6. Consider implementing temporary rules regarding no wake zones to align with varying water levels rather than permanent no wake zones to be mindful of economic impacts on tourism and property values.

NATIVE LANDSCAPING

1. Review-and modify City lawn and tree ordinances to encourage responsible native landscaping.
2. Provide residents and businesses with a best practices guide for native landscaping.
3. Continue replacement of annual plants in City landscaping to native, perennial plantings to reduce soil disturbance, decrease stormwater runoff, and mowing.
4. Consider no-maintenance, low-growing native grasses when planting new or replacement turf.
5. Add native species to roadside seed mixes on arterials at the edge of the City, and advise the Wisconsin Department of Transportation to do the same in the Highway 41 corridor.

Friends of Menominee Park Shoreland - Menominee site - photograph courtesy of Justin Mitchell

6. Control non-native, invasive species in right-of-ways, parks and other public areas, especially where they are particularly aggressive, such as along frontage roads.
7. Consider programs to help residents pay for "natural improvements," such as burying utility lines, or removing and replacing dead trees on their property.

WATER CONSERVATION

1. Review city building codes to update standards for low-flow water-conserving plumbing fixtures
2. Review ordinances to ensure the City is able to address drought situations by having policies in place to curtail unessential water uses.
3. Offer innovative incentives for residential, commercial, and industrial water conservation improvements, such as low-flow plumbing fixtures and other proven conservation measures.
4. Educate citizens and business owners on useful tips for cutting back on water usage, collecting water for reuse, and installing low-flow fixtures.
5. Continue to offer rain barrel workshops, providing education on household stormwater runoff while assisting participants in rain barrel construction.

GREEN SPACES

1. Strengthen existing development codes and promote policies that place a high value on developing an aesthetically-pleasing, natural environment that promotes social connectedness throughout the City.
2. Create plans to improve select developed areas, such as gateways and the Highway 41 corridor, with a more natural look.
3. Continue the development of new park space in residential neighborhoods that have little-to-no access to neighborhood parks.
4. Engage residents in the development of parks for recreational, social connectedness, and environmental purposes."

TREE PLANTING AND RETENTION

1. Support the continuation of the vigorous urban forestry program on terraces and in City parks.
2. Maintain the City's street-tree inventory, municipal nursery, and status as a Tree City USA.
3. Encourage continuation of programs that support the planting of additional urban trees.


CITY OF OSHKOSH
MATT MUGERAUER
Council Member
JAKE KRAUSE
Council Member
LORI PALMERI
Mayor
BOB POESCHL
Council Member
DEBRA ALLISON-KASBY
Council Member

5

GOVERNMENT

With almost five percent of the city's working population and more than two dozen city-owned buildings, the city has numerous opportunities to lead by example in sustainability efforts. This section provides sustainable policies and actions for city staff and departments to incorporate into daily operations and municipal projects. It also suggests administrative procedures to facilitate community actions. A greenhouse gas (GHG) inventory for municipal buildings has been completed and reduction targets set. City staff continues to attend seminars and workshops to increase their knowledge of sustainable practices.

Through the Sustainability Advisory Board (SAB), the city has created a sustainability website providing information on sustainable actions as well as a full range of available resources. The SAB has also created a Facebook page as another means of outreach. City departments continue to implement sustainable measures as they become available. Examples include the use of biodegradable paint, increased use of LEDs and motion/ occupancy sensors, improved traffic signal timing, solar-powered pedestrian crossing flashers, and permeable pavers.

Photograph of Common Council Meeting - Courtesy of Oshkosh Media

GOVERNMENT OBJECTIVE

LEAD BY EXAMPLE AND FOSTER SUSTAINABILITY POLICIES AND ACTIONS FOR COST-EFFECTIVE, SOCIALLY RESPONSIBLE AND ENVIRONMENTALLY SOUND GOVERNMENTAL PRACTICES TO MEET COMMUNITY NEEDS

POLICIES

ADMINISTERING SUSTAINABILITY

1. Seek the creation of a position responsible for coordination of sustainability activities to report to the City Manager.
2. Incorporate sustainability responsibilities in job descriptions for relevant city staff.
3. Form a green team of representatives from each department under direction of the Sustainability Coordinator to evaluate and implement internal sustainable actions.
4. Continue to involve the public in sustainability activity through the website, online surveys, social networks, governmental meetings, and workshops.
5. Review the Sustainability Plan annually. Present an update of how well the city is meeting sustainability targets at the State of the City event.

ENERGY MANAGEMENT

1. Require energy modeling as part of architectural design in all new public building construction to help determine the greatest efficiencies for energy conservation.
2. Demonstrate a wind turbine or solar energy in a high traffic location to serve as a model for the community.
3. Develop an energy conservation policy for all city facilities and implement it through promotion, education, employee training, and action.
4. Continue to develop policies to preserve and plant trees around city buildings and within and adjacent to city parking lots.
5. Analyze the energy savings impact of a four day work week for buildings where public contact is not a major consideration.
6. Incorporate life cycle analysis as part of the architectural design process.

GREEN BUILDING

1. As fiscal resources permit, use respected rating systems to help in the design process and monitoring of new municipal buildings, additions and renovations.
2. Consider adaptive reuse of existing buildings as first priority for expanded municipal space.
3. Use local and recycled building materials when possible.
4. Consider consolidation of departments with other units of government, such as done with the city/county health department to promote more efficient use of space and resources.
5. Continue changing existing annual plantings at municipal facilities to perennial native species.

COMMUNICATION/TRAINING

1. Continue to raise awareness and provide training opportunities for city staff about sustainability practices.
2. Explore ways to share facilities and services with other governmental entities—the school district, county, technical college and university.
3. Continue participation in Sustainable Communities Network, Green Tier, and other regional and state sustainability networks.
4. Partner with the University of Wisconsin-Oshkosh and other local groups to maximize sharing of knowledge.
5. Use local media on a regular basis to communicate sustainable activities the city is undertaking.

City Purchasing / General Services Staff - Courtesy of Oshkosh Media

PURCHASING

1. Develop a purchasing policy that incorporates preferences for sustainable purchasing. When possible, utilize Full Cost Accounting (FCA) to analyze all costs, advantages, and alternatives.
2. Define 'cost' not just as the monetary cost, but also include social, environmental and life cycle costs. Use this process rather than relying solely on the low bid process.
3. Modify requests for proposals, specification and contract language to ensure sustainable energy procedures are an integral part of each project.
4. Adopt purchasing policies for procuring equipment, computers and appliances that consider and promote energy savings (e.g. using ENERGY STAR procurement policies as guidelines). Include a policy with standards for worker safety, handling of chemicals, and alternative products and equipment.
5. Use a refill purchasing policy, replacing consumables instead of stocking excess.
6. Continue to use recycled paper wherever applicable.
7. Encourage use of 100% post-consumer recycled content products.
8. Continue to encourage use of electronic documents and email rather than generating paper copies.
9. Continue to work with vendors to reduce packaging.
10. Continue to buy local when possible.
11. Reduce or eliminate non-green products and cleaners.
12. Continue to partner in shared purchasing ventures.
13. Encourage the City to divest from all fossil fuels.

ENVIRONMENTAL CONSIDERATIONS

1. Review and adopt recycling practices at all municipal facilities.
2. Install low flow faucet aerators and high efficiency toilets in all municipal bathrooms to conserve water.
3. Encourage use of city water, e.g., installation of bubblers, hydration stations, etc.
4. Highlight the savings in number of plastic bottles kept out of the waste streams due to use of hydration stations in City facilities.
5. Increase use of hydration stations in City facilities.
6. Implement a fleet replacement program incorporating the use of the most cost and energy efficient technology available.
7. Install a few electric charging stations at City Hall.
8. Demonstrate environmentally safe landscaping practices in areas surrounding city buildings.
9. Reduce mowing wherever possible.
10. Install rain barrels and rain gardens at city facilities to reduce runoff.
11. Follow standardized environmental management procedures, such as International Organization for Standardization (ISO) 14001.
12. Continue to implement measures such as prairie treatment demonstration gardens.

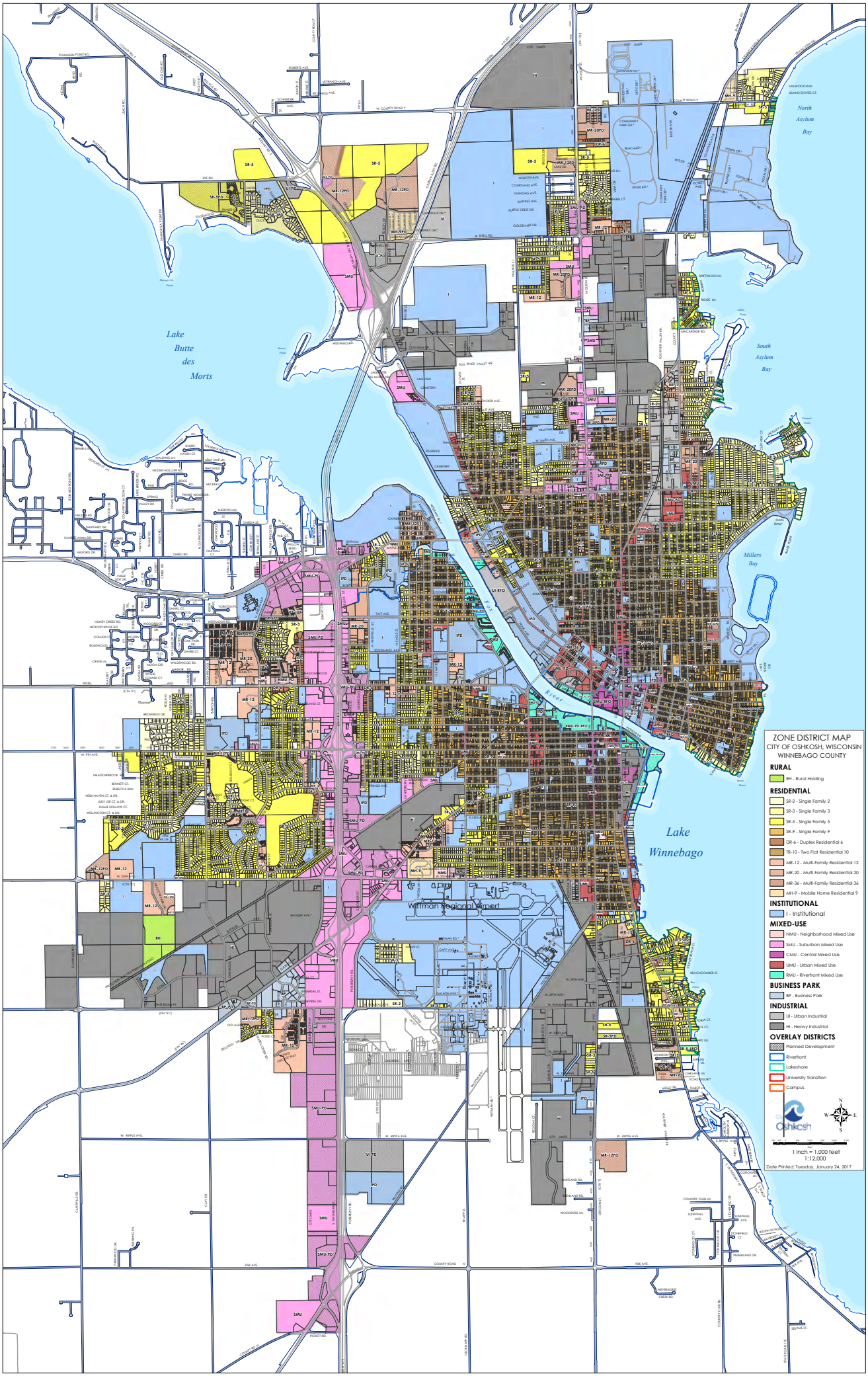
Human Resources Staff - Courtesy of Oshkosh Media

HUMAN RESOURCES

1. Hire and promote people with diverse backgrounds, experiences and perspectives.
2. Adopt human resource management practices that support sustainability objectives, such as allowing "flex time" or telecommuting, or offering incentives for use of public transit, biking, and ride-sharing.
3. Continue to provide a wellness program and maintain efforts to become certified as a Well Workplace.
4. Provide all City employees with an adequate level of compensation to support themselves, promote employee retention and reduce turnover costs.
5. Empower employees to think creatively, generate ideas, and share suggestions on municipal sustainability.

GOVERNMENTAL COMMITMENTS

1. Fulfill the U.S. Conference of Mayors Climate Protection Agreement approved in 2007 (Resolution 07-262) and the ICLEI Five Milestones for Climate Mitigation approved in 2008 (Resolution 08-295) by developing a Climate Action Plan with goals to reduce greenhouse gas emissions matched with strategies for reducing the use of fossil fuels.
2. Make use of the carbon reduction targets set by Milestone 2 of ICLEI.
3. Pursue additional beneficial commitments to a more sustainable community and maintain existing commitments, e.g., Tree City USA and Bird City Wisconsin.


Lake Butte des Morts
North Asylum Bay
South Asylum Bay
Millers Bay
Lake Winnebago
Wittman Regional Airport
ZONE DISTRICT MAP
CITY OF OSHKOSH, WISCONSIN
WINNEBAGO COUNTY
RURAL
RH - Rural Holding
RESIDENTIAL
SR-2 - Single Family 2
SR-3 - Single Family 3
SR-5 - Single Family 5
SR-9 - Single Family 9
DR-6 - Duplex Residential 6
TR-10 - Two Flat Residential 10
MR-12 - Multi-Family Residential 12
MR-20 - Multi-Family Residential 20
MR-36 - Multi-Family Residential 36
MH-9 - Mobile Home Residential 9
INSTITUTIONAL
I - Institutional
MIXED-USE
NMU - Neighborhood Mixed Use
SMU - Suburban Mixed Use
CMU - Central Mixed Use
UMU - Urban Mixed Use
RMU - Riverfront Mixed Use
BUSINESS PARK
BP - Business Park
INDUSTRIAL
UI - Urban Industrial
HI - Heavy Industrial
OVERLAY DISTRICTS
Planned Development
Riverfront
Lakeshore
University Transition
Campus
1 inch = 1,000 feet
1:12,000
Date Printed: Tuesday, January 24, 2017

6

LAND USE AND DEVELOPMENT

The physical layout and land use of our communities is fundamental to sustainability. Over the past several decades, two main land use practices have converged to generate unsustainable trends in urban sprawl. (1) zoning that separates each type of land use discouraging mixed-use neighborhoods and isolating employment locations, shopping services and housing from one another and (2) low density growth planning aimed at creating automobile access to increasing expanses of land. Community sustainability requires a transition from poorly-managed sprawl to Smart Growth planning. This entails land use practices that create and maintain efficient infrastructure, ensure close-knit neighborhoods, and preserve natural and agricultural systems. In Wisconsin, the Smart Growth law has begun to move communities in this direction. Smart Growth's vision is to promote denser settlement while providing mixed uses, open space and transportation choices – the antithesis of sprawl. The 2040 City of Oshkosh Comprehensive Plan complies with the Smart Growth law and reflects this vision.

Sustainable development not only addresses the broad view of community land use, but also the detailed view of sustainable sites and buildings. Emphasis is on building with nature in mind, exemplified by the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Green Building Rating System and the EPA's ENERGY STAR ratings for homes, appliances, and fixtures. LEED promotes a whole-building and neighborhood approach to sustainability. It recognizes performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. Oshkosh is constructing LEED certified buildings, several of which are on the University of Wisconsin-Oshkosh campus and at least one commercial building, a recently built Kwik Trip on 20th Avenue. Green rating programs are showing up more frequently in communities across the country and have proven to be a reliable tool to standardize the language of "green" buildings. Sustainable ideas influence housing also, as developers begin to employ such concepts as "life-cycle" design.

LAND USE AND DEVELOPMENT OBJECTIVE

GUIDE AND PROMOTE SUSTAINABLE CITYWIDE DEVELOPMENT PATTERNS AND INCORPORATE SUSTAINABLE FEATURES INTO BUILDINGS

POLICIES

LAND USE

1. Review standards for development in the Highway 41 Corridor Overlay District to address sustainability issues and to potentially allow for mixed-use development in the corridor.
2. Consider similar overlay districts for the Highway 21 and Jackson Street corridors.
3. Identify other high traffic corridors and offer incentives to help redevelop underutilized commercial buildings, strip centers, and parking lots.
4. Assign first priority to commercial redevelopment areas already identified in the Comprehensive Plan.
5. Continue to promote attractive transit-oriented, mixed income housing near new or alongside existing retail and office developments to reduce travel time to work and shopping areas.
6. Work to increase the total area of municipal park land to meet the needs of the City's population.
7. Design and promote public spaces that prioritize human interactions and social connections.
8. Encourage inclusionary zoning for affordable housing.

POLICIES TO ENCOURAGE GREEN BUILDING

GREEN BUILDINGS

1. Practice and promote sustainable building practices using the LEED program, ENERGY STAR, or a similar system.
2. Build awareness of the Living Building Challenge as a standard for sustainable development.
3. Consider requiring green building for all new city buildings and remodeling projects. The city can lead by example by establishing green building policies and goals, and creating a framework to implement them.
4. Consider offering incentives for green buildings or requiring green buildings in Tax Increment Financing Districts.
5. Encourage the use of solar panels, wind turbines or other renewable energy sources on existing and new construction.

Oshkosh Facilities Maintenance Building - courtesy of Sue Panek

LIFE-CYCLE COST ANALYSIS (LCCA)

1. Promote life-cycle cost analysis as a necessary component of designing a sustainable development.
2. Provide educational materials to help developers and builders know how to assess the full range of social and environmental impacts of their projects so better choices can be made. Life-cycle costs take into account the full life of a building project or development – from its raw material production, manufacture, transport and actual use to its disposal. LCCA can be performed on large and small buildings or on isolated building systems. Proven methods to account for LCCA include the LEED Green Building Rating System or the International Organization for Standardization (ISO) 14000 Environmental Management Standard. Another useful tool is Return on Investment estimates, or cost-benefit analysis, before expanding infrastructure networks, i.e., streets, sewer, water, electricity or communications.

BUILDINGS AND ENERGY

1. Partner with utility companies, ENERGY STAR, and others to offer energy efficiency education programs or incentives to improve energy use in buildings. Buildings account for 40% of energy consumed in the U.S. Strategies to reduce energy consumption are widely available on numerous websites, including the city's sustainability website.

COOL ROOFS

1. Consider a green or white roof pilot project on a city building. Green roofs or living roofs typically have native grasses, flowers, shrubs and vegetation planted into a layer of soil over a waterproof membrane. Other common features include gravel paths, patios, irrigation systems and photovoltaic arrays. Green roofs absorb and clean rainwater, provide insulation, create habitats for wildlife, and help to lower urban air temperatures. White roofs are another option. White roofs are painted white or use a white membrane or tiles to reflect solar radiation off the roof, reducing the building's thermal load.

MATERIAL RECOVERY

1. Provide incentives to promote the recovery of all recyclable building materials including not only construction waste from new building projects, but also what exists on site.
2. Promote adaptive reuse and renovation of older buildings while retaining historic integrity. Many of these were made of stone and brick which are long-lasting, have a good fire rating, and contain thermal retention properties.

LOCAL MATERIALS

1. Promote the use of building materials and products found in the immediate area and surrounding region. Buying and using local quality building materials strengthens the local economy, creates local identity, and decreases out of the region transportation costs.

AFFORDABLE AND SOCIALLY SUSTAINABLE HOUSING

1. Work with public and private housing providers to offer a mix of housing types affordable to low and moderate income owners and renter.
2. Continue to employ programs subsidizing owner and rental rehabilitation and first time homebuyers, such as the Community Development Block Grant Program (CDBG), the Home Rental Rehabilitation Program (HOME), Wisconsin Housing and Economic Development Authority (WHEDA) and local housing authority programs.
3. Encourage life-cycle or adaptable design to help people live independently throughout their lives. This type of design includes fixed accessible features, such as wider doors and halls, open floor spaces and clear traffic patterns; and adaptable features, such as wall reinforcement for grabbers and removable base cabinets for future knee space.
4. Continue to promote affordable and socially sustainable housing for all segments of the population.

Waite Grass Carpet Company - now living units owned by the Oshkosh / Winnebago County Housing Authority - courtesy of Sue Panek

7

LOCAL FOOD

The local food movement is aimed at connecting consumers back to the land, providing fresh and nutritious food, protecting the environment and supporting the local economy.

Growing Oshkosh is a nonprofit urban farm founded in 2012 with the hopes of bringing fresh, healthy, local and affordable food to downtown Oshkosh, as well as to local schools, social service agencies, at-risk neighborhoods and throughout the entire community. They specialize in sowing, growing and sharing quick-growing, nutrient-dense crops, but it is their educational mission that is at the core of everything they do, especially their youth education programs. Their "beyond organic" and sustainability-focused urban farm brings to market thousands of pounds of food each year and all the food grown in their 14 elementary school gardens are free to students, families, staff and neighbors.

Opposite: Oshkosh Farmers Market - Courtesy of Michael J. Cooney

LOCAL FOOD OBJECTIVE

PROMOTE LOCAL FOOD PRODUCTION, SALES AND CONSUMPTION

POLICIES

FARMLAND PRESERVATION

1. Support the preservation of agricultural lands in the city's extraterritorial growth area from premature conversion of prime farmland to non-agricultural uses.
2. Work with private land owners and developers to provide conservation easements for long-term local food production.
3. Explore the use of other agricultural and green space preservation programs, such as Purchase of Development Rights (PDR) and Transfer of Development Rights (TDR), as well as the use of conservation subdivisions.
4. Partner with the Future Farmers of America and encourage cooperative efforts with schools in efforts to preserve farmland.
5. Explore the use of acquired lands the City of Oshkosh Redevelopment Authority is land banking for future redevelopment, for interim neighborhood gardens.
6. Whenever possible, use land-banked sites to reduce the city's costs to maintain these properties.

PRIVATE AND INSTITUTIONAL GARDENS

1. Work with Growing Oshkosh Inc. in demonstrating sustainable urban gardening with greenhouses, aquaculture, and educational outreach to the city schools.
2. Partner with University of Wisconsin-Extension, Fox Valley Technical College and other local organizations to prepare a brochure related to setting up an urban food plot within applicable city/county regulations.

SUSTAINABLE GARDENING PRACTICES

1. Partner with the University of Wisconsin Extension and other groups in promoting best practices to protect people, water, and wildlife through workshops and printed materials.
2. Work with local education institutions to support the establishment of a demonstration community garden to illustrate sustainable practices and provide tours and educational opportunities for the community.
3. Promote the urban chickenkeeping ordinance for single and two family residential uses.
4. Promote the urban beekeeping ordinance and educate residents on urban beekeeping.

GREENHOUSES

1. Encourage local greenhouses to implement organic and environmentally sensitive methods.
2. Work with greenhouse owners to donate starter plants for community food plots in mixed-to-low income neighborhoods.
3. Ensure the zoning ordinance facilitates establishment of greenhouses in residential as well as other districts.

MUNICIPAL CODE REVISIONS

1. Revise the zoning ordinance to address community gardens as permitted or conditional land uses in all zoning districts.
2. Support the creation and implementation of ordinances that permit responsible composting.

LOCAL FOOD SALES

1. Support establishment of neighborhood markets.
2. Continue to support Oshkosh Farmers Market Inc. and other locally-raised and produced food.
3. Continue to support food sales from stands and trucks within current city, county and state regulations.
4. Work with the groups who are interested in establishing a food co-op at a downtown location.

PUBLIC EVENTS

1. Promote locally grown/produced goods at public events held in Oshkosh.
2. Offer incentives to local producers such as discounted vendor licenses and permits.
3. Promote biodegradable food service products if disposable utensils and plates are used at public events.

FOOD EDUCATION

1. Employ the city's sustainability website and media services to provide opportunities for citizens to learn about the importance of growing, preserving and buying local and organic food, local food safety, (such as advisories on mercury in Winnebago fish), and reducing greenhouse gas emissions by eating lower on the food chain (vegetarian).
2. Work to expand educational opportunities through the library, schools, University of Wisconsin-Extension, greenhouses, local media and other available educational outlets.
3. Develop a best-practices brochure for composting.
4. Encourage the use of recyclable bags for food shopping, and reusable straws and utensils for food consumption.

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MANAGING WASTE

The City of Oshkosh collects recyclable and solid waste materials and disposes of them in partnership with Winnebago County. The county is a member of a 25-year tri-county agreement with Brown and Outagamie counties, begun in 2002. As the conclusion of this agreement occurred in 2018, it will be increasingly important to reduce the solid waste stream volume and postpone the siting of a new landfill in Winnebago County for as long as possible. Single-stream recycling, established in 2009, has already shown an increase in recycled items, as well as cost savings with usage of automated equipment. Materials collected from residences through the single-stream recycling program are transferred to the Tri-County Single-Stream Recycling Center in Outagamie County for sorting and sustainable redistribution.

While recycling is an important factor in a sustainable community, promoting the reduction of initial use and reuse of materials is a preferred method. Area residents and businesses have many options, ranging from grinding masonry materials from demolished buildings for reuse in road construction projects, to utilizing resale and thrift stores for both donations and purchases, to composting yard waste to feed a family garden. As technology advances and new markets are created, we can expect to see a significant increase in options for waste reduction and uses of recovered materials. Currently, prescription drugs can be disposed of at a drop-off box at the Oshkosh Police Department. Leaf waste is spread on farm fields. The yard waste collected is sent to the urban biodigester system. Information on proper disposal of hazardous waste and e-waste can be found on the city website.

Opposite - View of tipping room floor - Courtesy of Winnebago County Solid Waste

MANAGING WASTE OBJECTIVE

PROMOTE WASTE MANAGEMENT AWARENESS AND REUSE OF MATERIALS, INCREASE THE NUMBER OF ITEMS RECYCLED, REDUCE INITIAL CONSUMPTION, AND REDUCE THE AMOUNT OF MATERIAL DIVERTED TO LANDFILLS

POLICIES

EDUCATION

1. Minimize waste creation by improving public understanding of source reduction as the most preferred method of waste management.
2. Educate and promote reduction, reuse, recycling, and recovery of waste materials through information on the City's Sustainable Oshkosh website.
3. Provide information such as a green business list to increase consumer product awareness and environmentally preferable purchasing.
4. Distribute updated information such as an annual mailing included with water bills about proper disposal of hazardous waste, prescription drugs, electronic waste, and other banned items through the Sustainability website and events such as the farmer's market.
5. Identify cost-saving benefits of waste reduction, as well as environmental gains for local residents and businesses.

WASTE REDUCTION

1. Improve institutional and business waste reduction and recycling programs.
2. Educate restaurants on the potential cost savings and waste reduction by allowing customers to ask for single use disposables like straws, napkins, and plastic silverware.
3. Work with restaurants to eliminate the use of Styrofoam containers.
4. Encourage use of reusable shopping bags and other multi-trip containers to reduce usage of plastic bags and single-use containers.
5. Promote alternatives to paper usage, as well as 100% post-consumer recycled content when feasible.
6. Provide information and incentives to promote recovery, reuse, and recycling of demolition debris and building scraps at construction sites through programs such as WasteCap.

Interior of Oshkosh City Garage - Courtesy of Sue Panek

RECYCLING

1. Consider recycling containers in public areas and at public events next to waste barrels. Ensure that single-stream recycling containers are well marked and visible.
2. Encourage 'away from home' locations, such as gas stations and convenience stores, to also provide recycling containers.
3. Continuously review the municipal recycling program for updated methods or technologies to improve the system.
4. Educate the public on what items are and are not appropriate for recycling streams.
5. Finalize and distribute a one-page educational handout on resources, websites, etc. directing residents to more information on recycling.

COMPOSTING

1. Provide education on setting up and maintaining compost bins at home, community gardens, and the workplace for organic waste (e.g. grass, leaves, brush, leftover fruits, vegetable waste, and garden debris).
2. Communicate with local employers who have existing compost programs to share best practices across the city.
3. Continue to promote use of monthly pickup collection and drop-off sites for community composting of leaves and other organic materials.
4. Continue partnering with the renewable energy facility biomass digester to convert community organic waste to electricity and heat with the local dry anaerobic biogas system.
5. Explore the municipal collection of organic waste. Communicate with other areas of the state and country to determine how to get over hurdles related to curbside compost pickup.

Winnebago County Solid Waste - Courtesy of Sue Panek

CONSUMER REUSE

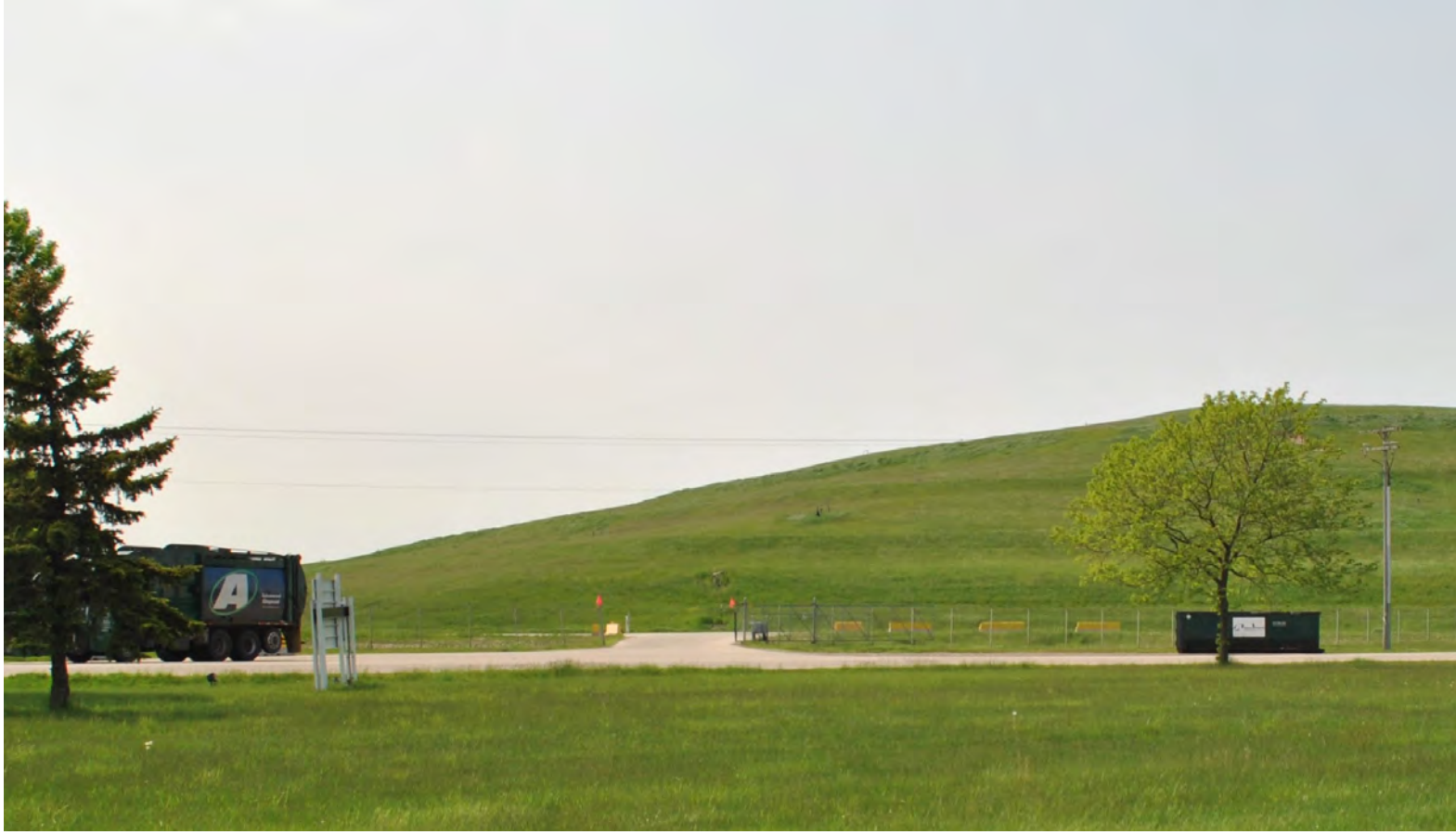
1. Encourage reuse of furniture, clothing, household, building and decorating items through local thrift stores (e.g. Goodwill, St. Vincent De Paul, Habitat for Humanity ReStore) or online forums (e.g. Freecycle, Craigslist, eBay).

NON-BIODEGRADABLES

1. Encourage use of cloth or reusable shopping bags by educating retailers and shoppers about advantages of reusable bags. Promote reusable bag programs providing customers with a monetary or other incentive to participate.
2. Encourage restaurants to use bio-degradable single-use take out containers instead of non-biodegradable containers.
3. Educate the community about water bottle waste and high quality of city tap water.
4. Promote sale of safe multi-use containers and encourage restaurants and retailers to provide means for customers to refill bottles with city water.

ELECTRONICS

1. Provide education regarding statewide collection and recycling system for consumer electronic devices, including their ban from landfills or incineration.
2. Promote diversion of e-waste to responsible recycling or disposal facilities. Promote e-waste recycling events at local businesses on the Sustainability website.
3. Encourage establishment of a local collection and disposal site for e-waste.
4. Partner with local electronics stores to create awareness on recycling programs available for e-waste products.



Winnebago County Landfill - Courtesy of Sue Panek

PRESCRIPTION AND OVER-THE-COUNTER DRUGS

1. Continue to encourage and facilitate the collection and disposal of unwanted/ excess prescription and over-the-counter drugs.
2. Work with law enforcement to establish additional collection sites beyond the drop box at the Oshkosh Police Department.
3. Educate the public on the need to keep these items out of the wastewater and landfill systems.

HAZARDOUS WASTE

1. Continue to promote the availability of the household hazardous material facility at the Winnebago County landfill. Investigate expanding hours for additional drop off times.
2. Remind residents on a regular basis that items such as tires, batteries, and waste oil should be taken to the landfill for proper disposal.

SPECIAL EVENTS

1. Create a pilot project to make an established community zero-waste event by using products that are bio-based, recyclable, or compostable using glass, bioplastics and paper products instead of plastic. Expand to include all community events.
2. Partner with the Chamber of Commerce to create incentives to promote zero-waste events.

LITTERING

1. Encourage citizens/visitors to pick up litter in parks, public places, along waterways, during special events, and in the general community.
2. Continue to enforce littering laws and encourage carry in, carry out.
3. Continue to evaluate public spaces and events for adequate waste and recycling receptacles.
4. Increase public awareness on the locations of plastic bag recycling containers and on what plastics these locations accept.

9

SAFE AND HEALTHY COMMUNITY

Food, water, and shelter are the basic physiological components necessary for life. Security, health and well-being are the basic safety needs of humans. Friendship, family and community are the basic social needs. Environment, social justice and economics are the pillars of sustainability. The City of Oshkosh is a community where residents and the local government strive to meet basic needs in a sustainable fashion.

The City of Oshkosh has strong public works, police and fire departments to provide public safety and support for its citizens. Winnebago County, the Wisconsin Department of Natural Resources and the U.S. Coast Guard provide boater safety on Lake Winnebago and the Fox River. The Winnebago County Health Department is an important partner with the City on various initiatives. Winnebago County also has a strong emergency management and first responder network.

The City has many medical, dental, rehabilitation, and assisted living/retirement centers, including Aurora Health Center and Ascension NE Wisconsin Mercy Hospital. From Little Oshkosh and Pollock Pool to the Oshkosh Seniors Center, there are many opportunities for recreation and socialization for all ages. Oshkosh is home to many parks located throughout the city, with Menominee Park on Lake Winnebago being the largest.

Over 60 religious facilities are located in Oshkosh. Cultural and social venues are myriad, including Leach Amphitheater, the Oshkosh Public Library, the Oshkosh Public Museum, the Grand Opera House, the Paine Art Center, and the Experimental Aircraft Association (EAA) Museum. Oshkosh, Wisconsin's Event City, is home to a monthly downtown Gallery Walk, Waterfest, Irish Fest, Oktoberfest, and the Celebration of Lights.

Oshkosh has seen much progress since the original 2012 Sustainability Plan. The Downtown YMCA recently underwent a major expansion. The City recently added bike lanes on Irving Avenue, and has continued work towards the completion of the Riverwalk. These recent successes are examples of positive catalysts for community health.

Oshkosh provides educational support at many levels, and is home to not only the Oshkosh Area School District but also the Fox Valley Technical College, the University of Wisconsin-Oshkosh plus many parochial schools. The Chamber of Commerce, Chamco, and the Oshkosh Convention and Visitors Bureau support both the social and economic bases of the city. All of these entities and many more make Oshkosh a safe and healthy community in which to live.

Opposite - Courtesy of Sue Panek

SAFE AND HEALTHY COMMUNITY OBJECTIVE

PROMOTE HEALTHY LIVING, CIVIC ENGAGEMENT, CULTURAL AND ETHNIC DIVERSITY, AND PROVIDE A SAFE AND HEALTHY COMMUNITY FOR OUR CITIZENS

POLICIES

EXISTING PARTNERSHIPS

1. Maintain well-staffed, trained, and equipped police and fire departments at the level required for our community's size and needs.
2. Maintain partnerships and collaboration with the Winnebago County Health Department to improve and maintain community and environmental health through the county.
3. Maintain safe drinking water, sewage treatment and stormwater capacity sufficient for the population as also mentioned in the Environmental Conservation chapter of this plan (pgs. 31-33).
4. Continue human services programs supported by community partners.
5. Continue to support literacy and the arts by furthering partnerships with the Oshkosh Public Library, the Oshkosh Public Museum Gallery Walk, and other community entities.
6. Continue to support the many agencies and programs that provide benefits to our citizens, such as Wisconsin Interfaith Needs Response, Meals on Wheels, Habitat for Humanity-Oshkosh, the Oshkosh Area Community Food Pantry, ADVOCAP, the Housing Authority, and GO-HNI.
7. Assist with efforts to create a more permanent warming shelter and ensure safe, healthy, and affordable housing options for all income levels.

HEALTH AND URBAN LAND USE

1. During the Site Plan Review and approval process, encourage development that promotes sustainable lifestyles by mixing residential, retail areas, and employment centers with safe walking/biking paths and access to bus routes, and require adequate landscaping.
2. Encourage housing developments that reduce isolation foster community spirit, include a diversity of occupant age, social, and cultural groups, and remain

affordable to a variety of income groups.
3. Continue to implement recommendations from the Pedestrian and Bicycle Circulation Plan.
4. Continue to promote development that is accessible and walkable under our new zoning process.
5. Examine and address connectivity across Highway 41 and railroads.
6. Support efforts of the Public Works and Transportation staff to ensure that public facilities, crosswalks, and pedestrian signals comply with the Americans with Disabilities Act of 1990 (ADA).
7. Create safety awareness and educate Oshkosh residents on the importance of snow removal from sidewalks.
8. Consider the role of social connections and inclusion in public spaces.

ACTIVE LIFESTYLES

1. Encourage physical fitness among all age groups.
2. Continue to maintain athletic fields, courts, and playgrounds in our parks, as was done through improvements to the Ferry Crossing baseball diamond and the Stevens Park tennis courts.
3. Continue to support the Pollock Community Water Park.
4. Encourage and support the efforts of the Seniors Center, YMCA, Oshkosh Area School District, University of Wisconsin-Oshkosh and various organizations in events such as the Tour de Titan and other walk/bike/run events.
5. Support additional work on the Riverwalk and bike trails.
6. Implement recommendations of the City of Oshkosh Pedestrian and Bicycle Circulation Plan to provide residents with safer conditions for biking and walking.
7. Encourage outdoor alternatives such as walking and biking for family togetherness.
8. Encourage use of our available natural resources for water sports and events (e.g. Dragonboat Races and sailing regattas).
9. Acquire additional acreage to create parkland in areas currently deficient in green space.

HEALTHY LIVING

1. Continue to support the health and welfare of City residents through programs such as the Committee on Aging, the Seniors Center, the Boys and Girls Club, Safe Routes to School (SRTS), healthcare screenings, mental health support, and free clinics.
2. Create a cross-sector Health in All Policies team and advocate for a Health in All Policies ordinance.
3. Advocate for policies, systems, and environmental changes that will improve health for all residents.
4. Encourage the implementation of employer wellness programs and wellness partnerships between employers and the community. For example, ensure that all City of Oshkosh employees have access to healthcare screenings, mental health support, and free health clinics.
5. Encourage local employers to meet criteria for Well City designation.

The Oshkosh / Winnebago County Housing Authority convered the former Waite Grass Carpet Company buildings into affordable living units and units became available in December, 2018.

Both Images (opposite and this page) - Courtesy of Sue Panek


CRITTERS
TREK

10

TRANSPORTATION AND MOBILITY

Sustainable transportation generally refers to enhancing alternatives to the automobile– public transit, bicycling, walking and rail – to reduce pollution, conserve energy and decrease traffic congestion. The City of Oshkosh offers Go-Transit, its own public transit system. At the time of the plan update, the system offered 10 routes to various locations in the City and Neenah. In 2014, over half (53%) of Go-Transit riders were between the ages of 30-64. The system has seen around a million riders yearly for the past five years. The system currently operates within walking distance (400 meters or 1/4 mile) of about 90 percent of the city.

In addition to the hybrid buses in service, seven new clean diesel buses were added to the fleet in June 2018 with three more scheduled to be added in 2019 to replace the ten 2003 models removed from service in 2018. The City has added bus shelters at the rate of about one to two per year to new locations throughout the City. Improvements to the existing downtown transit station and plaza by coordinating plaza design with surrounding streetscaping and street furniture to create a multi modal facility is being planned.

Oshkosh has had a long history of rail transportation. The Canadian National Railway and Wisconsin and Southern Railroad run through the City. Rail transport is often employed for freight and every ton-mile of freight moving by rail instead of truck reduces greenhouse gas emissions by two-thirds or more. On June 13, 2018 two spur lines served by the Wisconsin and Southern Railroad opened in the Southwest Industrial Park connecting local businesses to the national rail system.

The Oshkosh Pedestrian and Bicycle Circulation Plan was approved by the Oshkosh Common Council in 2011. The plan has recently undergone an update in 2017-2018. This plan has had extensive public input and incorporates a broad range of policies affecting bike routes, bike parking, pedestrian ways, connectivity with transit and trails, funding, education and intergovernmental cooperation. The Pedestrian and Bicycling Advisory Committee was established to oversee implementation of the plan. Since the plan's inception, several streets including Irving Avenue and Westhaven Drive have received bike lanes.

The Tribal Heritage trail over the I-41 Bridge connects the Wiouwash trail to the Riverwalk on both sides of the Fox River. This trail provides another means of recreation and transportation on foot or by bicycle through the area. On the southern side of the river the trail will continue along the former Municipal Golf course to Rainbow Park. The Boatworks Redevelopment project loop between the Wisconsin Street Bridge and the Oregon Street was open and scheduled for completion in the fall of 2018. Three sections of the downtown loop remain to be completed; the Dockside tavern to Main Street, Main Street to Pioneer Island, and Rainbow Park to the Senior Center.

Bicyclist on the Wiowash Trail - Image courtesy of Sue Panek

TRANSPORTATION OBJECTIVE

ENHANCE MOBILITY ALTERNATIVES TO THE AUTOMOBILE; DESIGN SAFE, EFFICIENT AND ENVIRONMENTALLY SOUND TRANSPORTATION INFRASTRUCTURE; AND CONNECT TO OTHER LOCAL AND REGIONAL NETWORKS

POLICIES

PUBLIC TRANSIT

CAPITAL IMPROVEMENTS

1. Encourage GO-Transit to continue replacing buses at the end of their service lives with new clean diesel or hybrid options.
2. Partner with GO-Transit, Planning Services and neighborhood associations to determine best locations and implement new covered bus shelters.
3. Encourage planned improvements to the existing downtown transit station and plaza by coordinating plaza design with surrounding streetscaping and street furniture to create a multi modal facility.

SERVICE IMPROVEMENTS

1. Assist in marketing the City's Go-Transit system to broaden the scope of ridership.
2. Partner with East Central Wisconsin Regional Planning Commission (ECWRPC) to examine and update the 2011 Oshkosh Transit System – Transit Development Plan (TDP).
3. Assist GO-Transit in determining how to further refine their data gathering system and capture data to improve traveler information, comfort, convenience and customer service.
4. Educate riders on the app for phones that allows the customer to track bus locations in real time.
5. Implement electronic fee collection on all GO-Transit buses.
6. Explore other service options, such as van-pooling and shuttle type service.

7. Provide incentives and flexibility for city employees and local businesses to use transit.
8. Design marketing programs to attract the general public, such as fare capping.
9. Explore route alternatives for the Intercity Bus service to increase usage.

REGIONAL TRANSIT AUTHORITIES

1. Support statewide efforts to permit transit agencies to create their own funding authorities to improve mass transit options.
2. Consider pervious paving materials where feasible and where clay subsoil does not inhibit drainage.
3. Incorporate landscaping for aesthetics and stormwater control, LED lighting, bike racks and other items to conserve energy and protect the environment.

TRIP REDUCTION PROGRAMS

1. Employ integrated land use planning and sprawl reduction policies to make destinations more pedestrian, bicycle and transit friendly.
2. Encourage rideshare programs and telecommuting.
3. Encourage new Park and Ride locations in addition to the four existing locations near the City.

FOSSIL FUEL INFRASTRUCTURE ALTERNATIVES

1. Assist in the planned implementation of EV charging stations in the City in addition to the eight EV charging stations already installed in and within 10 miles of Oshkosh.
2. Explore incentives for businesses to provide access to EV charging stations and alternative fuels, especially bio-diesel and its future fuel cousins.

RAIL TRANSPORTATION

FREIGHT RAIL

1. Partner with the Canadian National Railway and Wisconsin and Southern Railroad to protect the rail corridors and ensure that the right-of-way needs of the railroads are met while reducing the number of conflict points for the City.
2. Partner with the Planning Services Division, neighborhood associations, and residents to create and implement the Railroad Mitigation Plan for areas affected by the railroads.

PASSENGER RAIL

1. Encourage establishment of passenger rail service in the Oshkosh area by promoting reopening of a train line between Green Bay and Milwaukee through Appleton, Oshkosh and Fond du Lac.

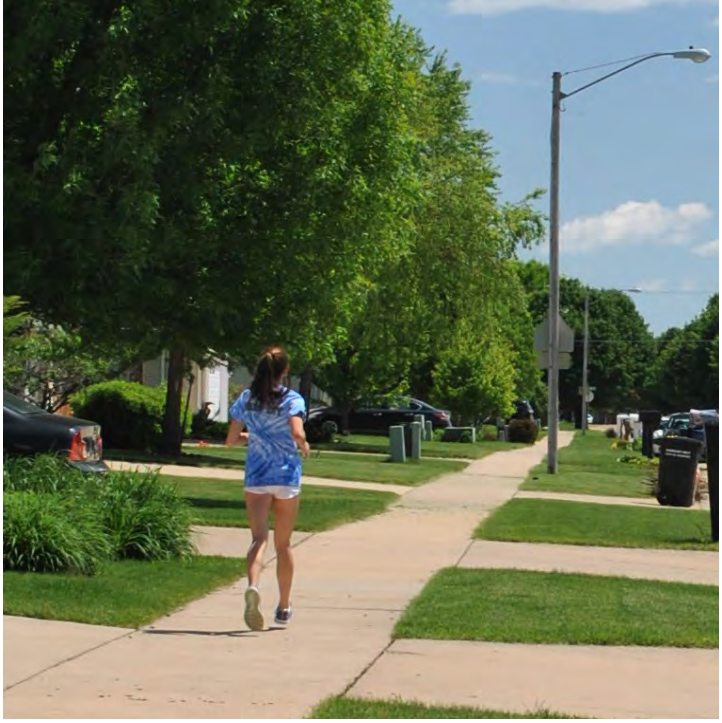
BICYCLE AND PEDESTRIAN FACILITIES

PLANNING

1. Partner with the Bicycle and Pedestrian Committee on implementation and further updates of the updated Bicycle and Pedestrian Circulation Plan.
2. Continue to examine the benefits and potential of a Complete Streets Policy for Oshkosh.
3. Support the implementation of bicycle and pedestrian-friendly amenities as listed in major plans such as Imagine Oshkosh and the Corridors Plan.

RIVERWALK

1. Examine ways to improve and beautify the Riverwalk and encourage increased use of the Riverwalk over time.
2. Work with the Parks Department and abutting property owners to encourage shoreline restoration through the use of appropriate shoreline plantings.
3. Research alternative environmentally friendly materials for remaining sections of the Riverwalk.



Opposite two images and left image this page - Courtesy of Sue Panek

WALKABLE NEIGHBORHOODS

1. Assess neighborhoods for their walkability by determining what goods and services are within an easy and safe walking distance to allow residents and employees to meet their needs on a regular basis, and recommend improvements where there are deficiencies.
2. Review zoning policies for their potential to allow mixed-use and compact development.
3. Provide input for the Sawdust District redevelopment and if possible support the use of traditional neighborhood design and transit-oriented development standards.
4. Encourage strict enforcement of speeding and other traffic laws to ensure streets are safe for all travelers—motorists, pedestrians and bicyclists.

STREET DESIGN AND MAINTENANCE

1. Continue to promote and build infrastructure to serve a range of users—pedestrian, bicyclists, transit riders and motorists.
2. Incorporate elements of green design when reconstructing or building new streets, e.g., LED street lighting, landscaping, native vegetation, wider terraces, narrower pavements, biodegradable paint, sustainable infrastructure (example permeable pavers) and pedestrian amenities.
3. Explore newer types of construction material such as permeable pavers and road design to reduce stormwater impacts or increase the lasting quality of a street.
4. Continue an aggressive street cleaning program to protect water quality, maintain pavement, and reduce the burden on the sewer system.
5. Address polluted run-off issues related to salt usage and other methods of snow and ice removal.
6. Develop a local erosion control ordinance and continue to enforce state-required erosion control practices during street construction.
7. Continue working with City Departments to finalize and implement a formal tree policy for street reconstructions.

TRAFFIC SIGNALS

1. Synchronize traffic signals with speed limits to avoid unnecessary stops and idling of cars.
2. Consider additional roundabouts where they could work. Fifteen roundabouts have been installed in the city to date.

PARKING FACILITIES

1. Consider bio-filters and other sustainability practices when rebuilding or developing parking facilities.

IMPLEMENTATION

ACTION PLAN FOR 2019

An action plan provides direction for accomplishing the objectives of the Sustainability Plan. For the 2012 Action Plan, the Sustainability Plan Steering Committee has selected policies for each objective. These are intended to be implemented in the short, medium and long term according to the order they are listed. The action items will be reviewed by the City's Sustainability Advisory Board, who will set targets, assign responsibilities, and prepare an annual report. The annual report will show progress not only of Action Plan items, but of the many other policies in the Sustainability Plan that may be guiding day to day activities. The Sustainability Advisory Board will also update the Action Plan annually with input from staff, City Council, and citizens.

Goal: Improve the quality of life in the City of Oshkosh by incorporating sustainability practices to meet the environmental, economic and social needs of the present without compromising the ability of future generations to meet their own needs.

2019 Sustainability Advisory Board Goals

Government Action

	Action Items	Responsible Individuals	Completion Target
1	Inventory Electric Vehicle Infrastructure	Margy, Robert	
2	Explore municipal and city-wide use of solar energy	Robert, Pat	
3	Sustainability Plan update	SAB, Staff	December, 2018
4	Green Infrastructure Audit - UWO Collaboration	Staff	December, 2018
5	Fossil Fuel Divestment - Long Range Finance and City Council	Margy	
6	Fall 2018 - UWO Projects - Implementation	SAB, Staff	
7	Explore potential for use of permeable pavers on various sites	SAB, Staff	Ongoing

Education & Outreach

	Action Items	Responsible Individuals	Completion Target
1	Finalize Native Plant Brochure	Michelle	
2	Sustainability Plan Update	SAB, Staff	December, 2018
3	Coordinate SAB's Faciliatation of Rain Barrel workshop	Vic, Staff	
5	Create 2018 Annual Report (State of the City)	Staff	DONE
6	Support Menominee Park Shoreland Project through volunteer cleanups	SAB, Michelle	Ongoing
7	Create education program for kids/public on energy, composting, rain gardens etc., Bird Fest, Farmers Market, Zoo/Leach	SAB	
8	Recycling/clean up (Putting bins at Farmers market, city parks, Washburn, etc.)	SAB, Staff	
9	Environmental Leadership Award(s) for 2020	SAB Volunteers, Staff	Ongoing

Opposite image - Middle Village green space build - October, 2015

GLOSSARY

25x25: a rallying cry for renewable energy and a goal for America – to get 25 percent of our energy from renewable resources like wind, solar, and biofuels by the year 2025.

adaptive reuse: the process of using old structures for purposes other than those initially intended.

alternative transportation: in this document alternative (and/or sustainable) modes of transportation include transportation by public transit (bus or rail), bicycle, walking, or alternative fuel vehicles.

American Planning Association (APA) Policy Guide on Planning for Sustainability: an extensive set of sustainability policies for communities based on the four principles of the Natural Step framework.

benchmark: a standard by which something can be measured or judged; in this document, targets set for reduced greenhouse gas emissions.

biodegradable: capable of being decomposed by bacteria or other biological means

biodigester: a container in which methane, or biogas, is captured in the processing of organic material by anaerobic bacteria. The gas is often used for heating, lighting or cooking.

biofilter: a filter system using microorganisms to convert organic compounds of a pollutant to carbon dioxide, water and salts

biofuel: a fuel, such as wood, methane or ethanol, composed of or produced from biological raw materials.

biomass: plant material, vegetation, or agricultural waste used as a fuel or energy source.
Bird City Wisconsin: a designation by a partnership of state birding groups indicating a community has met certain criteria for making itself healthy for birds. Oshkosh was one of 15 communities designated early in 2011.

brownfield: abandoned, idled or under-used property where expansion or redevelopment is complicated by the presence or potential presence of environmental contamination.

business incubator: facility established to nurture young (startup) firms during their early months or years, usually providing affordable space, shared offices and services, hands-on management training, marketing support and often access to some form of financing.

carbon footprint: a measure of the amount of carbon dioxide released into the atmosphere by an entity, e.g. a country, company, household or individual, through day to day activities over a given period of time.

climate action plan (CAP): a customized roadmap to reduce global warming pollution by a target a city has identified. The CAP includes an implementation timeline for reduction measures, costs and financing mechanisms, assignments to city departments, and actions the city must implement to achieve its target. The inventory and quantification of existing climate protection measures helps guide a city to understand where it can get the greatest emissions reductions. The majority of measures in a CAP fall into energy management, transportation, waste reduction and land use categories.

climate change: any change in global temperatures and precipitation over time due to natural variability or to human activity. Present thinking is the Earth is getting warmer because of an accumulation of greenhouse gases in the lower atmosphere primarily attributed to combustion of fossil fuels and deforestation.

community garden: a garden cultivated by a group; in this document usually an area designated by the city or county where garden plots are rented to community members on an annual basis to plant vegetables and flowers.

compost: a mixture of decaying organic matter, as from food wastes, leaves or manure, used to improve soil structure and provide nutrients.

conditional land use: in a zoning district, a land use permitted with additional requirements tailored to the site.

conservancy area: an area protected from development because of special environmental characteristics

cool, green or white roof: an "environmentally friendly" roof intended to conserve energy by employing a white reflective or insulated coating, or being planted with vegetation.

ecology: the study of the relationship between living organisms and their environment

energy conservation: reduction in the amount of energy consumed through economy, elimination of waste, and rational use.

energy independence: generally means using less foreign oil, but also refers to areas off the grid and employing renewable energy sources such as wind or solar.

ENERGY STAR: a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy designed to reduce greenhouse gas emissions and help businesses and consumers save money by making energy-efficient product choices.

e-waste: any refuse created by discarded electronic devices and components or substances involved in their manufacture or use.

Facility Improvement Measures (FIMs): standards to improve building and system performance, such as reducing electricity, water or natural gas usage.

flexible-fuel vehicle (FFV) or dual-fuel vehicle or flex-fuel vehicle: an alternative fuel vehicle with an internal combustion engine designed to run on more than one fuel, usually gasoline blended with either ethanol or methanol fuel, and both fuels are stored in a common tank.

Focus on Energy: a program for eligible Wisconsin residents and businesses to install cost effective, energy efficient and renewable energy projects. Focus information, resources and financial incentives help to implement projects that otherwise would not get completed or complete projects sooner than scheduled. Its efforts help Wisconsin residents and businesses manage rising energy costs, promote in-state economic development, protect the environment and control the state's growing demand for electricity and natural gas.

food co-op: a grocery store organized as a cooperative. Food cooperatives are usually consumers' cooperatives owned by their members. Food cooperatives follow the 7 Cooperative Principles (voluntary and open membership, democratic member control, member economic control, member economic participation, autonomy and independence, education, training and information, cooperation among cooperatives and concern for community) and typically offer natural foods.

fossil fuels: fuels formed by natural resources such as anaerobic decomposition of buried dead organisms. Fossil fuels include coal, petroleum, and natural gas. Fossil fuels are non-renewable resources because they take millions of years to form, and reserves are being depleted much faster than new ones are being made.

Full Cost Accounting (FCA): generally refers to the process of collecting and presenting information about environmental, social, and economic costs and benefits/advantages (collectively known as the "triple bottom line") for each proposed alternative when a decision is necessary. It is a conventional method of cost accounting tracing direct costs and allocating indirect costs.

geothermal energy: thermal energy generated and stored in the earth. Thermal energy is energy that determines the temperature of matter. The Earth's geothermal energy originates from the original formation of the planet, from radioactive decay of minerals, from volcanic activity, and from solar energy absorbed at the surface. The geothermal gradient, which is the difference in temperature between the core of the planet and its surface, drives a continuous conduction of thermal energy in the form of heat from the core to the surface. Use of geothermal energy heating of buildings with ground source heat pumps has been steadily increasing.

green: in this document, green is shorthand to refer to any environmentally preferable product, activity, service or process.

green power: a subset of renewable energy representing renewable energy resources and technologies providing the highest environmental benefit. The EPA defines green power as electricity produced from solar, wind, geothermal, biogas, biomass, and low-impact small hydroelectric sources. Customers often buy green power to avoid negative environmental impacts and for its greenhouse gas reduction benefits.

green or sustainable business: an enterprise having little or no negative impact on the global or local environment, community, society, or economy; a business that strives to meet the triple bottom line.

green team: in this document, green team is used to describe a team of city department representatives chosen to lead sustainability initiatives for the City of Oshkosh.

greenhouse gas (GHG): natural and manmade gases in the earth's atmosphere allowing incoming solar radiation to pass through the atmosphere and warm the earth, while trapping radiant heat given off by the earth. The radiant heat absorbed by these gases heats the atmosphere. This is a natural process known as the "greenhouse effect" that keeps the earth habitable. The four primary greenhouse gases are carbon dioxide (CO2), methane (CH4), nitrous oxide (NO) and chlorofluorocarbons (CFCs). Since the onset of the industrial period, human activities have lead to sharp increases in the levels of GHGs in the atmosphere, enhancing the greenhouse effect and contributing to rising global temperatures.

greenhouse gas inventory: an audit of activities causing greenhouse gas emissions, such as electricity use, transportation and waste generation. The inventory provides baseline data for local governmental operations and community scale activities to help target projects and programs to reduce emissions.

greenhouse gas reduction target: a specific quantified emissions reduction goal, usually a percentage by which greenhouse gases will be reduced from base year levels by a chosen target year.

greenhouse gas "sink": the physical site where carbon is stored, e.g., atmosphere, oceans, vegetation and soils and fossil fuel deposits.

Health in All Policies (HiAP): A transformative, collaborative approach to improving a community by incorporating health, sustainability, and equity considerations into decision-making across government agencies and policy areas.

Health in Planning: How the built environment, like zoning policies, comprehensive plans, bicycle/pedestrian accommodations, and parks, can improve community health and provide increased opportunities for health.

hybrid vehicle: a vehicle using two or more distinct power sources to move the vehicle. The term most commonly refers to hybrid electric vehicles (HEVs), which combine an internal combustion engine and one or more electric motors.

hydration station: an indoor or outdoor site provided with drinking fountains, water coolers or other means to obtain drinking water.

hydropower/hydraulic power or water power: power derived from the force or energy of moving water, which may be harnessed for useful purposes. Prior to development of electric power, hydropower was used for irrigation and operation of various machines, such as watermills, textile machines, sawmills, dock cranes, and domestic lifts.

Inclusionary zoning: A type of incentive zoning that requires developers to reserve a portion of housing units for low and moderate income residents, often with restrictions on resales that specify purchase by low or moderate income households. Inclusionary zoning programs may be based on mandatory requirements or development incentives, such as density bonuses, expedited permits and approvals, relaxed design standards, or fee waivers or reductions. (http://whatworksforhealth.wisc.edu/program.php?t1=109&t2=126&t3=86&id=341)

International Council for Local Environmental Initiatives (ICLEI): an association of over 1220 local government members who are committed to sustainable development. It provides technical consulting, training and information services to build capacity, share knowledge and support local government in the implementation of sustainable development at the local level.

impervious surface: mainly artificial structures--such as pavements (roads, sidewalks, driveways and parking lots) covered by impenetrable materials such as asphalt, concrete, brick, and stone--and rooftops. Soils compacted by urban development are also highly impervious.

Industrial Ecology (IE): the study of material and energy flows through industrial systems. The global industrial economy can be modeled as a network of industrial processes that extract resources from the earth and transform those resources into commodities which can be bought and sold to meet the needs of humanity. Industrial ecology seeks to quantify the material flows and document the industrial processes that make modern society function. Industrial ecologists are often concerned with the impacts that industrial activities have on the environment, with use of the planet's supply of natural resources, and with problems of waste disposal. Industrial ecology is a young but growing multidisciplinary field of research which combines aspects of engineering, economics, sociology, toxicology and the natural sciences.

infill: use of land within a built-up area for further construction, especially as part of a community redevelopment or growth management program or as part of smart growth. It focuses on the reuse and repositioning of obsolete or underutilized buildings and sites.

invasive species: non-native (or alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Invasive species can be plants, animals, and other organisms, e.g., microbes. Human actions are the primary means of invasive species introductions.

International Organization for Standardization (ISO): promotes the development and implementation of voluntary international standards, both for particular products and for environmental management issues.

ISO 14000/14001: a series of voluntary standards in the environmental field under development by ISO. Included in the ISO 14000 series are the ISO 14001 Environmental Management Standard and other standards in fields such as environmental auditing, environmental performance evaluation, environmental labeling, and life-cycle assessment. The EMS and auditing standards are now final. The others are in various stages of development.

land banking: the practice of acquiring land and holding it for future use.

Leadership in Energy and Environmental Design (LEED): a rating system developed by the United States Green Building Council (USGBC) that sets definitive standards for what constitutes a green or environmentally preferable building. The certification system is self-assessing and designed for rating new and existing commercial, institutional, and high-rise residential buildings. It evaluates environmental performance of the entire building over the building's life cycle. LEED certifications are awarded at various levels (certified, silver, gold, and platinum) according to a point-based scoring system.

light-emitting diode (LED): a semiconductor light source. LED bulbs draw considerably less power and are up to 90% more efficient than incandescent and halogen bulbs. They can last 10 or more years under normal usage.

Life-Cycle Design: a framework recognizing each step in product development from extraction of raw materials through final disposal of all residuals. It focuses on discovering and reducing environmental impacts.

Life-Cycle Cost (LCC) or Life-Cycle Assessment (LCA, also known as life cycle analysis, ecobalance, and cradle-to-grave analysis): a technique to assess environmental impacts associated with all the stages of a product's life from-cradle-to-grave , i.e., from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling.

McKinstry Study: a study commissioned by the City of Oshkosh to audit municipal buildings and create a plan for energy savings.

mixed-use development: development which incorporates both residential and commercial uses.

nanomaterials: materials which have structured components smaller than one tenth of a micrometer in at least one dimension. Materials with one dimension in the nanoscale are layers, such as a thin films or surface coatings. Some of the features on computer chips are in this category.

native vegetation: plant species native to the northeastern Wisconsin bioregion, usually suited to their habitat and including all forms of vegetation, e.g., trees, bushes, grasses, forbs, etc.

Natural Step, The: a framework founded in Sweden, now worldwide, promoting sustainable communities through four principles: reduction of fossil fuel, reduction of chemicals, protection of natural eco-systems, and social justice. Wisconsin has 28 Natural Step or "eco" communities.

organic: of, relating to, or derived from living organisms. Organic foods are those produced using methods not involving modern synthetics such as pesticides and chemical fertilizers, not containing genetically modified organisms, and not processed using irradiation, industrial solvents, or chemical food additives.

Pay-As-You-Throw policy: substituting variable rate pricing for flat rates, meant to provide an incentive to households to divert an increased portion of its discards away from traditional disposal to recycling.

payback: the period of time elapsed before an investment is recouped

Policy, systems, and environmental (PSE) change: A way of modifying the environment to make healthy choices practical and available to all community members. By changing laws and shaping physical landscapes, a big impact can be made with little time and resources. By changing policies, systems and/or environments, communities can help tackle health issues like obesity, diabetes, cancer and other chronic diseases. (http://plan4health.us/policy-systems-and-environmental-change-strategies/)

Polycyclic Aromic Hydrocarbon (PAHs): a group of organic contaminants formed from incomplete combustion of hydrocarbons, such as coal and gasoline. PAHs are an environmental concern because they are toxic to aquatic life and because several are suspected human carcinogens. They are present in coal tar sealants often sprayed or painted on asphalt pavement to protect and beautify driveways, parking lots and other asphalt surfaces.

potable water: water suitable for drinking

programmable thermostat: a thermostat designed to adjust the temperature according to a series of programmed settings taking effect at different times of the day. Programmable thermostats may also be called setback thermostats or clock thermostats.

Purchase of Development Rights (PDR): a strategy for protecting natural and farmland from development. Development rights are one of the many rights, such as mineral rights or timber rights that come with a parcel of land. When a landowner sells development rights, the right to develop or subdivide a parcel of land is permanently relinquished. The landowner retains all other rights, such as the right to farm or timber the property, and must continue to pay property taxes. Landowners often sell or make a charitable donation of development rights to land trusts, or local and state government agencies.

radon: a colorless, odorless, short-lived radioactive gas that can seep into homes and become a lung cancer risk.

rain barrel: a barrel used as a cistern to hold rainwater, often a component of a community's stormwater reduction strategy.

rain garden: a shallow (2"-18") depression, typically planted with colorful native plants, strategically located to collect, infiltrate and filter rain falling on hard surfaces like roofs, driveways, alleys, or streets to minimize negative impacts of excessive runoff from these surfaces on lakes and streams.

Regional Transit Authority (RTA): a legislatively created organization with the sole purpose of operating a transit system within a given jurisdiction, usually with the ability to tax and bond for operating and capital expenditures.

RENEW Wisconsin: a nonprofit organization promoting clean energy strategies for powering the State of Wisconsin economy in an environmentally responsible manner.

renewable energy: any naturally occurring, theoretically inexhaustible source of energy, e.g., biomass, solar, wind, tidal, wave, and hydroelectric power, not derived from fossil or nuclear fuel.

roundabout: a circular road structure where several roads meet, often replacing stop and go lights.

Safe Routes to Schools (SRTS): a program enabling community leaders, schools and parents across the United States to improve safety and encourage more children, including children with disabilities, to safely walk and bicycle to school. In the process, programs are working to reduce traffic congestion and improve health and the environment, making communities more livable for everyone.

seasonal load control: a program in which utility companies offer a lower rate in return for having permission to turn off gas or electricity for short periods of time by remote control. This control allows the utility to reduce peak demand.

single stream recycling: a system in which all paper fibers and containers are mixed together in a collection truck, instead of being sorted into separate commodities (newspaper, cardboard, plastic, glass, etc.) by the resident and handled separately throughout the collection process. In single stream, both the collection and processing systems are designed to handle this fully commingled mixture of recyclables, with materials being separated for reuse at a materials recovery facility.

smart growth: community growth consciously seeking to avoid wastefulness and damage to the environment.

Social connectedness: strength of relationships with others in the community

solar energy: radiant light and heat from the sun harnessed by humans using a range of ever-evolving technologies.

stratospheric ozone layer: atmospheric ozone relatively concentrated in the lower stratosphere in a layer between 9 and 18 miles above the Earth's surface. It plays a critical role for the biosphere by absorbing damaging ultraviolet radiation with wavelengths 320 nanometers and lower. Also known as ozone layer.

subsurface drainage chamber: the use of underground pipes and other fittings to direct the flow of water from unwanted places to another place.

sustainable: can mean slightly different things depending on the context in which it is used. In this document it means "use of a resource so the resource is not depleted or permanently damaged." Sustainability is defined as "meeting present needs without compromising the ability of future generations to meet their needs."(1987 U.N. Conference)

Tax Incremental Financing District (TIF): an economic development tool for Wisconsin, allowing a municipality to promote growth in a specific district by borrowing on the district's future growth in taxable property value. In Wisconsin, TIFs may be created for three types of projects: blight or environmental remediation, industrial development, and mixed-use development. Tax revenue from improvements in the district pay back debt until all project costs are repaid.

telecommuting: a work arrangement in which employees enjoy flexibility in working location and hours. The daily commute to a central work place is replaced by telecommunication links. Many work from home, while others utilize mobile telecommunications technology to work from coffee shops or other locations.

total maximum daily load (TMDL): a calculation of the maximum amount of a pollutant a water body can receive and still safely meet water quality standards.
tot lots: small parks or playgrounds usually located in an urban area.

Transfer of Development Rights (TDR): a tool used to manage land development. TDR is the exchange of zoning privileges from areas with low population needs, such as farmland, to areas of high population needs, such as downtown areas. These transfers allow for the preservation of open spaces and historic landmarks, while allowing urban areas to expand and increase in density.

Travel Green Wisconsin: a Wisconsin Department of Tourism program promoting smart, environmentally friendly business practices. The program is the first state-sponsored sustainable tourism certification program in the nation and has become a model for sustainable travel efforts across the nation.

Tree City USA: a program, sponsored by the Arbor Day Foundation in cooperation with the USDA Forest Service and the National Association of State Foresters, providing direction, technical assistance, public attention, and national recognition for urban and community forestry programs in thousands of towns and cities that more than 135 million Americans call home.

Triple Bottom Line: a method of "true cost accounting," which considers the impact of production and operating decisions in terms of ecological and social value, as well as economic value.

U.S. Conference of Mayors Climate Protection Agreement: participating cities commit to take the following three actions to meet or beat the Kyoto Protocol targets in their own communities; urge their state governments, and the federal government, to enact policies and programs to meet or beat the greenhouse gas emission reduction target suggested for the United States in the Kyoto Protocol -- 7% reduction from 1990 levels by 2012; and urge the U.S. Congress to pass the bipartisan greenhouse gas reduction legislation, which would establish a national emission trading system.

urban growth boundary (UGB) or urban service area: a regional boundary, set in an attempt to control urban sprawl by mandating the area inside the boundary be used for higher density urban development and the area outside be used for lower density development. An urban growth boundary circumscribes an entire urbanized area and is used by local governments as a guide to zoning and land use decisions.

Vision Oshkosh 2010: an A. Nelessen Associates report which identified and analyzed emerging trends and community issues, articulated core community values, developed a community vision based on communities' core values, established a vision action plan to implement the vision, and defined a method to revisit and update the vision and action plan

WasteCap Wisconsin: a nonprofit, industry-supported 501(c) (3) organization providing waste reduction and recycling assistance to businesses. WasteCap assists and encourages companies to effectively drive costs out of their operations through improved solid waste management practices. Services are made possible through membership, sponsorship, and grants.

watershed: an area of land where all water beneath it or draining off it has a shared destination of river, lake or stream.

Well City USA: an initiative designed to engage entire business communities in improving the health and well-being of their workforce. Similar in approach to Well Workplace, the primary requirement for achieving a Well City USA designation is when a minimum of 20 employers who collectively employ at least 20% of the city's workforce become designated Well Workplaces within a three-year period. Each employer must complete WELCOA's Well Workplace Award application documenting their progress in developing and delivering their worksite wellness initiatives.

Well Workplace: a seven-step, benchmarking initiative by the Wellness Council of America (WELCOA) which gives organizations a roadmap to successfully build results-oriented wellness programs into their working environments while avoiding common pitfalls.

wind energy: the conversion of wind energy into a useful form of energy. Examples are using wind turbines for electricity, wind mills for mechanical power, wind pumps for pumping water or drainage, or sails to propel ships.

Wisconsin Energy Independent Community: a voluntary agreement between the State of Wisconsin and communities adopting the State's 25x25 goals (a rallying cry for renewable energy and a goal for America – to get 25 percent of our energy from renewable resources like wind, solar, and biofuels by the year 2025).

zero waste: reuse or recycling of all natural and man made materials back into nature or the marketplace rather than landfilling or similar disposal options for these materials.