VILLAGE OF LAKE BLUFF
SUSTAINABILITY AND COMMUNITY ENHANCEMENT AD HOC COMMITTEE

Wednesday, November 30, 2016
7:00 P.M.
Village Hall Board Room
40 East Center Avenue

A G E N D A

1. Call To Order

2. Roll Call

3. Consideration of the September 28, 2016 Sustainability and Community Enhancement Ad Hoc Committee (SEC) Meeting Minutes

4. Non-Agenda Items and Visitors (Public Comment)

   The Co-Chairs will allocate fifteen (15) minutes during this item for those individuals who would like the opportunity to address the Sustainability and Community Enhancement Ad Hoc Committee on any matter not listed on the agenda. Each person addressing the Sustainability and Community Enhancement Ad Hoc Committee is asked to limit their comments to a maximum of five (5) minutes.

5. Order of the Meeting
   The Co-Chairs will entertain requests from anyone present on the order of business to be conducted during the Meeting.

6. General Business
   The Sustainability and Community Enhancement Ad Hoc Committee will entertain requests from anyone present to modify the order of business to be conducted.

   a) A Continued Discussion Regarding the Prioritization of Goals/Tasks.
   b) Review of a Draft Beekeeping Pilot Program.

7. Village Staff Report

8. Member's Report

9. Co-Chair's Report

10. Adjournment

R. Drew Irvin
Village Administrator

The Village of Lake Bluff is subject to the requirements of the Americans with Disabilities Act of 1990. Individuals with disabilities who plan to attend this meeting and who require certain accommodations in order to allow them to observe and/or participate in this meeting, or who have questions regarding accessibility of the meeting or the facilities, are requested to contact R. Drew Irvin at 234-0774 or TDD number 234-2153 promptly to allow the Village of Lake Bluff to make reasonable accommodations.

VILLAGE OF LAKE BLUFF
SUSTAINABILITY AND COMMUNITY ENHANCEMENT AD HOC COMMITTEE MEETING

September 28, 2016

DRAFT MEETING MINUTES

1. **Call to Order**
   The Village of Lake Bluff Sustainability and Community Enhancement Ad Hoc Committee (SEC) met on September 28, 2016 in the Village Hall Board Room (40 E. Center Avenue) at 7:00 p.m. and the following members were present:

2. **Roll Call**

Present:	Brian Rener, Co-Chair Jill Danly Liz Leutwiler Nan Patterson Anne Sorensen
Absent:	Marina Carney Puryear, Co-Chair
Also Present:	Evonda Thomas-Smith, City of Evanston's Director of Health and Human Services Department (Telephonically) Lisa Hilgenberg, Chicago Botanic Garden Horticulturist Drew Irvin, Village Administrator Franco Bottalico, Administrative Intern

3. **Approval of the July 27, 2016 Meeting Minutes**
   Member Sorensen moved to approve the July 27, 2016 SEC Meeting Minutes. Member Danly seconded the motion. The motion passed on a unanimous voice vote.

4. **Non-Agenda Items and Visitors**
   Co-Chair Rener stated the SEC allocates 15 minutes for those individuals who would like the opportunity to address the SEC on any matter not listed on the agenda.

   There were no requests to address the SEC.

5. **Order of the Meeting**
   There were no requests to change the order of business.

6. **General Business**

   A. **A Presentation from Carl Caneva, Assistant Director of the City Of Evanston's Health and Human Services Department, Regarding Evanston's Recently Amended Beekeeping Ordinance, and a Presentation on Beekeeping from Lisa Hilgenberg, Chicago Botanic Garden Horticulturist.**

Administrative Intern Bottalico gave a brief background introduction to the SEC on the City of Evanston's Department of Health and Human Services ordinance and its recent amendments. Mr. Bottalico advised that Assistant Director Caneva was unable to attend the meeting; however, his supervisor, Director Evonda Thomas-Smith, offered to speak to the SEC via telephone.

Co-Chair Rener contacted Director Thomas-Smith by phone and thanked her for speaking to the SEC. VA Irvin requested Director Thomas-Smith to begin with a background of Evanston's beekeeping ordinance, its current status and then describe the recent amendments to the ordinance.

Director Thomas-Smith gave the SEC a brief background of how the ordinance evolved. Once established several neighbors made inquiries regarding medical concerns of bees, which transitioned into the City amending its ordinance. Director Thomas-Smith stated the amendment to their ordinance states that if a resident desired a beekeeping license they would have to alert neighbors and gain their consent. In the event the neighbor does not give consent due to a medical condition, the applicant can appeal the beekeeping license with the City. If the City feels that permitting the apiary is a viable opportunity for a resident to become a beekeeper the City offers a site on City property to permit the apiary. If an applicant has a neighbor who denies them from obtaining an apiary, this alternate City-owned property provides a resident an opportunity to become a beekeeper.

Co-chair Rener asked if there is a certain amount of square footage regarding beekeeping on City property. According to Director Thomas-Smith, an apiary must be 150 feet away from public playground, parkways, active activities of other residents, or any other scheduled recreation. The apiary must be fenced in as well. She also stated the City provides the fencing for the apiaries on public property.

Member Sorensen inquired what type of fencing Director Thomas-Smith recommends for the apiaries. Director Thomas-Smith stated for apiaries on City property they require chain-link fencing and on residential properties the fencing varies.

Member Danly inquired on what initiated Director Thomas-Smith on allowing beekeeping and how does the City market this. Director Thomas-Smith stated this was initiated by a resident's science project on beekeeping. She also stated there is community outreach via the City's website. A discuss on community outreach ensued.

Member Leutwiler inquired if the City of Evanston has a cap on the amount of apiaries the City permits a resident to own per property, and total number of apiary licenses permitted City-wide. Director Thomas-Smith stated the City does not have a cap on City-wide apiary licenses; however, the City does regulate how many apiaries are permitted per property. The City permits a maximum of six apiaries on City property locations. Residents on their own property currently only keep one apiary.

Co-Chair Rener asked what is the square footage is in the fenced in area. Director Thomas-Smith advised the fenced in area is 20X25 feet.

Director Thomas-Smith stated the City receives approximately two beekeeping license inquiries per year.

Member Patterson inquired on apiary inspections. Director Thomas-Smith stated the apiaries are inspected annually.

Co-Chair Rener inquired on the planting of flowers near apiaries in public spaces. Director Thomas-Smith stated that they placed the apiary near a community garden that has been beneficial for the bees.

A discussion ensued on the success of the beekeeping ordinance in the City of the Evanston and the City's unique and diverse population.

Member Sorensen inquired on keeping an apiary on roof top and its benefits. Director Thomas-Smith stated that presents a challenge conducting safe inspections.

Co-Chair Rener thanked Director Thomas-Smith for her time. Director Thomas-Smith thanked the SEC and offered her support in going forward. A discussion on beekeeping ensued.

At this time Lisa Hilgenberg introduced herself to the SEC. She stated she wanted to share the Chicago Botanic Garden's challenges and success in beekeeping.

Ms. Hilgenberg presented a background and overview via Power Point to the SEC on the Chicago Botanic Garden and its beekeeping efforts.

Ms. Hilgenberg stated the national overwintering success of beekeeping is 25% and the Chicago Botanic Garden has had approximately a 33% success rate. She added this rate varies year-to-year.

Ms. Hilgenberg stated one challenge they have encountered is swarming. That occurs when the queen needs to find a larger area. In the past they have cut down the tree branch that a swarm has chosen and relocate the swarm to a more suitable area. Ms. Hilgenberg stated that a swarm of bees is a non-threatening event.

Ms. Hilgenberg presented and discussed photos of a model beehive placement in a grove, and explained why a beehive should face south-east to ensure proper sun exposure.

Ms. Hilgenberg explained safety precautions the Chicago Botanic Garden takes regarding medical emergencies. In addition, she stated bees have never entered buildings, and typically do not become agitated from the public.

Ms. Hilgenberg opened the floor for questions from the SEC.

Member Patterson inquired on what becomes of a swarm and can you replace those bees who have fled. Ms. Hilgenberg stated that often times you cannot because the hive has been split in half and you must reintroduce an additional queen.

Member Danly inquired on what type of public education does the Chicago Botanic Garden on beekeeping benefits. Ms. Hilgenberg stated that there are workshops and

clinics that they teach to the public, and they have a beekeeper who is active to teach the public on beekeeping.

Member Patterson inquired on the major considerations regarding the management of bees. Ms. Hilgenberg stated that in addition to financial concerns, knowledge and availability of water is important.

Co-Chair Rener inquired on how the Chicago Botanic Garden determined how many hives to place on the island. Ms. Hilgenberg stated that two hives per acres are what farmers use for proper pollination for food crops. A discussion ensued.

Member Sorensen inquired at what temperatures are bees active. Ms. Hilgenberg responded by stating anything over 40 degrees.

VA Irvin inquired on overwintering and if Ms. Hilgenberg has any recommendations. Ms. Hilgenberg stated that it becomes more dangerous when removing the bees; it is best to keep the bees year-round. A discussion ensued on the location of a hive. Ms. Hilgenberg stated she is happy to share her seed mix that she uses for plants surrounding the hives.

VA Irvin explained that the Village of Lake Bluff permits certain property to allow beekeeping, and that the goal of the SEC is to make a recommendation to the Village Board regarding beekeeping for a potential pilot program, and educate the public on beekeeping and its benefits.

VA Irvin inquired on minimum amount of water and vegetation available needed for bees. Ms. Hilgenberg stated the more forage available for bees creates a happy hive; a lawn clover is the largest source of food in nectars for bees; however, spraying lawns reduces the amount of clovers available. Spreading the message of stop spraying your lawn is a good message for the SEC to spread. Ms. Hilgenberg stated that water is necessary for bees, and a thoughtful placement of a water source is recommended.

VA inquired on community gardens and a potential location in the Village and asked if Ms. Hilgenberg has general guidelines on community gardens to share with the SEC. Ms. Hilgenberg stated she would be happy to do so.

The SEC thanked Ms. Hilgenberg for her time.

B. <u>A Continued Discussion Regarding the Prioritization of Goals/Tasks</u>

Co-Chair Rener expressed that the SEC should dedicate a meeting to focusing on the list of Goals/Tasks item.

A discussion ensued on the best way to prioritize the SEC's Goals/Tasks as well as public education initiatives once submitted and approved by the Village Board of Trustees.

VA Irvin stated that at the request of an SEC Member Administrative Intern Bottalico visited the Lake Bluff Middle School, Lake Bluff Elementary School, Forest Bluff Montessori, and Lake Bluff Park District parking lots in search of "No Idling" signs.

Administrative Intern Bottalico reported observing two "No Idling" signs in the parking lot of the Lake Bluff Middle School. Administrative Intern Bottalico will investigate where the Lake Bluff Middle School purchased the sign as well as the price for the SEC to consider.

VA Irvin requested the SEC forward him each Member's top 10 goals/tasks that they desire to work on (excluding any educational initiatives of the Goals/Tasks since that is a common ground concern of the SEC). At an upcoming SEC meeting the Members will then prioritize the list of Goals/Tasks with stickers.

7. <u>Village Staff Report</u>

VA Irvin stated he has had conversations with a resident who owns an undeveloped lot in the Village and the resident is willing to allow a community garden on the location. VA Irvin suggested the resident come speak with the SEC if the resident is further interested. VA Irvin recommended the resident to also speak with the neighbors regarding constructing a community garden before doing so. A discussion on community gardens ensued.

Members Patterson and Sorensen offered contacts as a resource when exploring community gardens. Member Sorensen recommended utilizing fencing for protection from deer and other animals.

8. <u>Member's Report</u>

Member Danly shared information regarding an upcoming events on a community's walkability, and if anyone is interested attending. Member Danly also shared a Green Mind initiative that focuses on a bring-your-own-bag. She also shared an environmental town hall meeting she attended regarding what others in Illinois are doing. A discussion ensued on walkability efforts.

Co-Chair Rener shared a model lighting ordinance. He stated that this is a tool other organizations have used when adopting a lighting ordinance.

Member Leutwiler inquired if the Village has received any feedback on the new LED lights. VA Irvin stated in addition to the most common issue the Village has been dealing with is the intensity of lights as they are now versus what was previously there. This may be due to the intensity and cleanliness of the new lenses, as well as the positioning of the light poles. A discussion ensued on street light placement on streets.

9. <u>Co-Chair's Report</u>

The Co-Chairs had nothing to report.

10. <u>Adjournment</u>

As no further business came before the SEC, Co-Chair Sorensen moved to adjourn the meeting at 8:37 p.m. Member Leutwiler seconded the motion. The motion passed on a unanimous voice vote.

Respectfully Submitted,

_____

R. Drew Irvin
Village Administrator

MEMORANDUM

Date: November 23, 2016

To: Co-Chairs Puryear and Rener and the Sustainability & Community Enhancement Committee

From: Franco Bottalico, Administrative Intern

Subject: **A Continued Discussion Regarding the Prioritization of Goals/Tasks**

As directed by the SEC, Staff has created a refined list of defined goals/tasks. Included in this list is also a column for each goal/task's respective action the SEC can review and discuss for recommendation to the Village Board. This is the same material from the July 27, 2016 SEC Meeting.

A copy of the U.S. Department of Housing and Urban Development's Sustainability Planning Toolkit (Toolkit) was included in July 27th's material. The Toolkit can be used as a guide to develop the SEC's sustainability plan by using the Toolkit's milestone format. Milestone 1 recommends an organization to conduct a sustainability assessment, and a copy of Lake Bluff's assessment has been included as an attachment in this pack. Currently the SEC is at Milestone 2 which recommends an organization establish sustainability goals. Once the SEC has established its prioritized goals/tasks the SEC should have a discussion to consider using the Toolkit as a guide.

Attachment:

- A list of defined goals/tasks and each one's actions
- A copy of U.S.H.U.D.'s Sustainability Planning Toolkit
- A copy of Lake Bluff's Municipal Energy Profile

Goals/Tasks		Definitions/Descriptions	Definitions/Descriptions/Other
1 & 44	Recycling in public spaces and businesses / Business emissions waste	These places include: parks, stadiums, transit hubs, shopping centers, along streets and at special event sites. Usually recycling programs can be integrated into existing public space waste services. Create a community guide to increase awareness of recycling opportunities and incentives to businesses who do.	Adding recycling receptacles to parks/schools and having business participate in SWALCO program. Refer to recently adopted Commercial Solid Waste Hauling and Recycling Program Ordinance.
2 & 11	Recycling / Composting	Recycling is the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products. Backyard composting is an acceleration of the same process nature uses. By composting your organic waste you are returning nutrients back into the soil in order for the cycle of life to continue.	Establish an ordinance requiring recycling bins wherever there is a trash receptacle (train station, streets). Explore the viability of a residential food-scrap collection program. Educate residents about composting and leaf corrals. Create a free bin pilot program.
3, 32, 35 & 47	Public Transportation support / Transportation Infrastructure / Pedestrian walkways and bicycle pathways	Encouraging citizens to bike to work or ride share as well as partnering with other organizations to provide public transportation. Commit to reducing pollution and land development impacts from single occupancy vehicle use. Provide walkable and inviting areas and pathways and green spaces within the Village.	Encourage multi-agency initiatives to link regional bike and pedestrian paths. Provide signage of pedestrians and bike routes. Explore future development and improvement of sustainable practices and material in bike paths and sidewalks. Provide adequate bike storage at facilities, parks, downtown, and where practical. Identify relevant bus, train, and bike routes on the Village's website. Incorporate IDOT Complete Streets Initiatives into projects. Offer more little buses for transportation around town (partner with Shields township and surround communities). The Village can analyze Vehicle Miles Travelled (VMT) and set a VMT reduction goal. Provide preferred parking for carpools and fuel-efficient vehicles at facilities. Provide suggestions on alternative transportation methods such as a Village bicycle sharing program. Participate in and support the Commuter Challenge program, and possibly a walk-to-work program. Encourage multi-agency initiatives to link regional bike and pedestrian paths. Provide adequate bike storage at facilities, parks, downtown and where practical. Identify relevant bus, train and bike routes on the Village's website.
4, 6, 20 & 36	Sustainable landscaping / Landscape Adaptation / Urban landscapes, open lands and forestry / Enhanced natural and community appearance	Sustainable landscapes are responsive to the environment, re-generative, and can actively contribute to the development of healthy communities. Sustainable landscapes sequester carbon, clean the air and water, increase energy efficiency, restore habitats, and create value through significant economic, social and, environmental benefits. Composting may help conserve existing natural areas and restore available turf areas to provide habitat, promote biodiversity, decrease flooding, and control erosion. Fewer lawns would decrease toxic rainfall runoff and there would be less noise polluting lawnmowers. Open space provides recreational areas for residents and helps to enhance the beauty and environmental quality of neighborhoods.	Create a pesticide protocol to encourage sustainable practices such as organic fertilizers, compost tea, 3-inch mow height, proper signage, and proper watering schedules. Also, educate residents on the use of permeable surfaces. Offer proper landscape management material. Encourage residents to use more native plantings and ensure Municipal Code allows plants 10-inches or taller. Encourage citizens to leave undergrowth in wooded areas to provide shelter/protection for small animals and birds. The Village/County/Park District work together to add more trees in certain areas to produce healthier air and cooler air within the Village. Consider using certain native trees that are easy to maintain and enforce local ordinances.
5, 16, 41 & 42	Emergency Preparedness	Likely weather severities for Lake Bluff would be damage from severe winds and flooding and droughts. Encourage collaboration before disasters, find and coordinate resources during disasters, and help communities recover after disasters. Specific emergency management functions are often grouped into five phases: Prevention; Preparedness; Response; Recovery; and Mitigation. Renewable energy includes resources that rely on fuel sources that restore themselves over short periods of time and do not diminish. Such fuel sources include the sun, wind, moving water, organic plant and waste material (eligible biomass).	Determine the feasibility with current Municipal Code (CMAP's model water use conservation ordinance as an example). Green infrastructure (trees, native plants, bioswales, rain gardens, rain barrels, green roofs) protects our aging sewer system by keeping Stormwater out. Look to create a draft ordinance, to create rules that will cut back on residential, commercial and municipal actions that may harm the functionality of ravines and bluffs. Use Lake County plan as example. Coordinate with Park District and Schools on plans for disasters/shelter areas during black outs in severe weather conditions. Educate public on emergency preparedness tips/guidelines via website. Pursue a model renewable energy system on a municipal site. Analyze the cost and feasibility of solar panels to power the lights and heating of Village facilities. Consider purchasing 25-50% renewable energy.
7	Incentives for electrical cars	Reduce emissions and noise pollution.	No charge for vehicle stickers for electric cars or hybrids, and possibly offer electrical recharging stations.
8	Vehicle Idling	Idling is when a driver leaves the engine running and the vehicle parked and an release emission and noise pollutants.	Partner with the School and Park Districts, as well as other organizations to provide anti-idling signage. Publish articles in newsletters and the website urging drivers to cut idling engines to reduce harmful pollutants at school pickup locations, Village facilities, and train stations. Also, prohibit idling by buses and vehicles at schools, and educate people to shut off their vehicles when they wait for trains or store parking lots.
9	School and community gardens	A community garden is any piece of land gardened by a group of people, utilizing either individual or shared plots on private or public land. The land may produce fruit, vegetables, and/or ornamentals. Community gardens may be found in neighborhoods, schools, connected to institutions such as hospitals, and on residential housing grounds.	Provide an area for the community to come together and educate one another on the benefits of gardening organic and healthy food (less pesticide exposure), while also adding beauty and green and clean space where pavement may have been.
10	Bring your own bag	Reduce the reliance on plastic bags from retailers.	Create a campaign pledge for local businesses to sign, phasing out the use of plastic bags and transition to reusable bags.
13	Pet policies	A heavy rainstorm and spring run-off can easily carries dog waste into streams and rivers, and any waste that ends up in storm sewers usually flows directly into a body of water without being treated. In addition, Municipal Code 5-9B-11 "Defecation Restrictions" prohibits pets to eliminate waste on public property.	Educate residents on pet waste ordinance via signs and Village website. Educate on harmful effects of pet waste run off to water system. Offer trash containers on walking paths.
14 & 40	Energy efficiency and conservation / Green power	In general terms, energy efficiency is achieved through the application of technology, such as insulation upgrades, compact fluorescent bulbs (CFLs), high efficiency furnaces, and so forth. Energy conservation is achieved through behavioral changes, such as turning off lights when not needed, using household appliances differently, carpooling, and so forth. Green power is a subset of renewable energy and represents those renewable energy resources and technologies that provide the highest environmental benefit. US EPA defines green power as electricity produced from solar, wind, geothermal, biogas, eligible biomass, and low-impact small hydroelectric sources. Customers often buy green power for its zero emissions profile and carbon footprint reduction benefits.	Pursue a model renewable energy system on a municipal site. Analyze the cost and feasibility of solar panels to power the lights and heating of public buildings. Display education materials at the facility for the public. Free home inspections by a non-profit. Consider solar roadways or wind turbines near public service buildings or near the Lake (Park District). Educate public via website. Secure commitments from major employers in the Village to reduce their energy usage by ___% per year though 2020. Incentivize businesses and residents to purchase solar panels, or wind turbines. Streamline solar panel permitting process. Encourage residents to adapt homes for solar energy to heat pools. Provide instructions for residents on how to begin an inquiry and become a candidate for solar power. Reduce or eliminate permit fee for solar installations.
15 & 33	Water conservation, quality and use / Impacts to water supplies and food sources	Cut back on water use by following water conservation practices such as watering lawns in the early morning/late evening and less frequently, taking shorter showers, and the use of rain barrels or cisterns. Keep harmful containments out of water supply.	Find ways to track water usage and include this information on bills. Create a benchmark system to compare residential usage with neighbors. Where functional, install low-flow fixtures in Village facilities and encourage their use in commercial and residential construction. Offer rain barrels or cisterns to residents. Create a public awareness campaign on the dangers associated with pesticides, herbicides, fertilizers, salt and pharmaceuticals to water / food and garden supplies. Create educational awareness on drug drop off sites and how to dispose of household chemicals properly.
17, 23 & 26	Community education and events / Coordinate with local groups and agencies to further sustainability and enhancement Public policy/action regarding neighboring communities' actions that affect Lake Bluff	Meeting with residents, businesses, surrounding local governments and nonprofits to use each others' resources and skills to accomplish same goal/unified vision and to share and communicate information in an effort to increase local awareness.	Utilize local non-profits, Lake Forest-Lake Bluff Chamber of Commerce, Tri-Board and Lake County. Have local clubs, groups, schools visit SEC meetings. The Village should use websites and news articles to inform public on initiatives. Possibly have Village dedicate a day to an environmental festival in collaboration with School and Park District.
18	LEED or green building codes	Green building codes go beyond minimum code requirements, raising the bar for energy efficiency. They can serve as a proving ground for future standards, and incorporate elements beyond the scope of the model energy codes, such as water and resource efficiency. As regional and national green building codes and programs become more available, they provide jurisdictions with another tool for guiding construction and development in an overall less impactful, more sustainable manner.	Increase the sustainable development and green building methods throughout the community. Create a Sustainable Development Incentive Program to incentivize property owners and builders to construct buildings in an environmentally friendly manner. Provide a real estate transfer tax decrease for homes that are energy efficient. Provide regular reviews of Municipal Codes to remain current with green building technologies and initiatives. Add "Leadership in Energy and Environmental Design" (LEED) Building standards into Village's Municipal Code. Encourage more LEED certified buildings in the Village.

19	Economic Development & Building, Zoning and Land Use	Clean technologies and green jobs, local commerce, tourism and local food system.	Utilize deconstruction and reuse rather than demolition whenever possible for Village facilities to serve as an example for property owners.
21	Light Pollution	The inappropriate or excessive use of artificial light – known as light pollution – can have serious environmental consequences for humans, wildlife, and our climate. This light is wasted by spilling into the sky, rather than focusing it on to actual objects and areas.	Recommend a light pollution Zoning Regulation to the PCZBA. Restrict lighting on residential, Municipal, and commercial buildings to approved, shielded, and properly mounted pieces to reduce light pollution and glare while attractively illuminating areas.
22 & 34	Local Food Production / Employment and workforce training	Community gardens and homegardening examples and education partnering with local schools and restaurants. Best practices and education on waste and creating efficiencies/recycling material.	As part of CMAP's recommendations, local production of and equitable access to fresh, nutritious, and affordable food can benefit our economy, environment, public health, equity, and overall quality of life. Partner with nonprofits, local schools, Colleges and businesses for green workforce training and education.
24A	Backyard Chickens	Backyard chickens provide healthier more nutritious eggs, and make for great home composters. Bees help plants and gardens thrive and also produce honey.	The Village should allow a group of citizens, in collaboration with the SEC, to draft an ordinance on backyard chickens that is used by a comparable/surrounding community to present to the Village Board of Trustees.
24B	Backyard Bees	Bees help plants and gardens thrive and also produce honey.	The Village should allow a group of citizens, in collaboration with the SEC, to draft an ordinance on backyard bees that is used by a comparable/surrounding community to present to the Village Board of Trustees.
25, 27 & 28	Gasoline landscape blowers / Air pollution / Air quality	Leaf blowers pose multiple health risks due to air pollution attributed to their use. The pollution comes in the form of unburned fuel, from the inefficient combustion process inherent in such devices, and from a mixture of fine particles blown into the air, particles that can go deep into the human lungs. In conjunction with urban landscaping, vehicle idling, and gasoline leaf blowers, the Village can educate its residents with reminders to ensure above mentioned recommendations or future ordinances are being followed to ensure healthier air quality.	In conjunction with enforcement of the recent amendments to the Village's landscape maintenance regulations, the Village may also encourage residents and businesses to use electric blowers. Village Public Works should consider replacing gas-guzzling lawnmowers and leaf blowers with propane or electric devices. In conjunction with vehicle idling and lawn maintenance regulations, the Village can reach out to the businesses to join noise pollution awareness and commitment. Reinforce this with Village's branded quality of preserving its sense of "aural tranquility."
29	Invasive species	There are a small set of plants that did not evolve in this region and are causing serious, expensive problems. Buckthorn, garlic mustard and teasel are examples. Featuring longer-than-normal growing seasons, astounding reproductive abilities and low disease resistance, they enter our natural areas and take over. As a result, dozens of native plant species – and the wildlife that depend upon them – disappear. Many other aspects of ecosystem health can suffer as well, including soil chemistry, hydrology, structure and resilience.	Educate residents and businesses on the damage done by invasive species such as the Buckthorn which: Out-competes native plants for nutrients, light and moisture. In addition it may also degrade wildlife habitat; threaten the future of forests, wetlands, prairies, and other natural habitats; contribute to erosion by shading out other plants that grow on the forest floor; and serve as host to other pests, such as crown rust fungus and soybean aphid. Partner with Lake County Sustainability in their effort to remove Buckthorn.
30	Police pension divest of coal and carbon	Develop a long-term investment strategy that evaluates the pension funds' fossil fuel investments and makes recommendations to further reduce contributions to climate change while protecting retirees.	Research what other communities have done before recommending to Village Board of Trustees.
31	Stormwater reduction opportunities	Where rain falls on paved surfaces, a much greater amount of runoff is generated compared to runoff from the same storm falling over a forested area. These large volumes of water are swiftly carried to our local streams, lakes, wetlands and rivers and can cause flooding and erosion, and wash away important habitat for critters that live in the stream. Stormwater runoff also picks up and carries with it many different pollutants that are found on paved surfaces such as sediment, nitrogen, phosphorus, bacteria, oil and grease, trash, pesticides and metals. These pollutants come from a variety of sources, including pet waste, lawn fertilization, cars, construction sites, illegal dumping and spills, and pesticide application.	In addition to Green infrastructure (trees, native plants, bioswales, rain gardens, rain barrels, green roofs) and in an effort to reduce stormwater runoff, the SEC can recommend businesses and residents use permeable surfaces, bioswales and rain gardens on public and private lands.
34	Employment and workforce training	Best practices and education on waste and creating efficiencies/recycling material.	Partner with nonprofits, local schools and Colleges for green workforce training and education.
37	Pesticides and fertilizers	Harmful effects to humans and wildlife and negative effects to water supplies.	Partner with School and Park District in pledge to reduce use of harmful pesticides and fertilizers. Use as model for businesses and residents to adopt. Website articles as educational tools.
38	Styrofoam	Styrene leaches into foods and drinks served in Styrofoam containers, and according to the Earth Resource Foundation, the manufacture of Styrofoam releases large amounts of ozone into the atmosphere, causing respiratory and environmental issues. In addition, with billions of Styrofoam cups used yearly in convenience stores, restaurants and lunchrooms ending up in landfills, some cities have banned the use of Styrofoam.	Decrease the use of Styrofoam/polystyrene in the Village by educating residents and businesses on the negative environmental effects of polystyrene. Create a campaign pledge for local businesses to sign, phasing out the use of polystyrene or instituting a surcharge.
39	Coal tar driveway sealants	Friction from vehicle tires grinds pavement sealcoat into small particles, which are incorporated into the dust on the pavement surface and can pose as health risks. Dust on coal-tar-sealed pavement contains PAHs at concentrations that are hundreds of times higher than those in dust on concrete or unsealed asphalt pavement. Some of that contaminated dust is transported by wind, rain, and snowplows to nearby soil, and some is tracked into homes, where it becomes part of the house dust.	Explore the ban of coal tar driveway sealants due to health and environmental hazards, offer incentives to businesses using alternatives to coal tar sealants. Recommend Village, School and Park Districts use alternatives.
43	50% reduction in building permits for any building to acquire LEED certification	Leadership in Energy and Environmental Design (LEED) is a rating system devised by the United States Green Building Council (USGBC) to evaluate the environmental performance of a building and encourage market transformation towards sustainable design.	The village can refund the permit fees to owners after they receive LEED certification, the Village can also attempt to expedite reviews and award recognition to owners/organizations who are LEED certified.
45	Water bottle filling stations/ water fountains	Using reusable water bottles reduces waste created by the bottling process and the need for fossil fuels to make plastics.	Install refill water stations in Village owned facilities to educate and persuade our Park and School District, as well as our business community to also eliminate bottled water use and waste
46	Chlorinated de-icers	De-icers enters our environment through the runoff from rain, melting snow and ice, as well as through splash and spray by vehicles and the wind. It finds its way onto vegetation and into the soil, groundwater, storm drains, and surface waters causing significant impact to the environment.	Educate staff on de-icing salt alternatives and less salt usage.

SUSTAINABILITY PLANNING TOOLKIT

A COMPREHENSIVE GUIDE TO HELP CITIES AND COUNTIES DEVELOP A SUSTAINABILITY PLAN

WRITTEN BY:

ICLEI–Local Governments for Sustainability USA

·I·C·L·E·I Local Governments for Sustainability USA

IN ASSOCIATION WITH:

The City of New York's Mayor's Office of Long-Term Planning and Sustainability

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AUTHORS

- Jennifer Ewing, Project Manager, ICLEI USA
- Don Knapp, Senior Communications Officer, ICLEI USA

SPECIAL THANKS

- Rohit Aggarwala, Director, City of New York's Mayor's Office of Long-Term Planning and Sustainability
- Amy Chester, Chief of Staff for City of New York's Deputy Mayor for Government Affairs (former Senior Policy Advisor, Mayor's Office of Long-Term Planning and Sustainability)
- Adam Freed, Deputy Director, City of New York's Mayor's Office of Long-Term Planning and Sustainability
- Ariella Rosenberg Maron, Deputy Commissioner for Energy Management at the NYC Department of Citywide Administrative Services (former Deputy Director, Mayor's Office of Long-Term Planning and Sustainability)
- Kim Lundgren, Local Climate and Sustainability Consultant (former ICLEI U.S. Services Director)
- Annie Strickler, ICLEI USA Communications Director
- Mayor Noam Bramsom, New Rochelle , NY
- Deborah Newborn, Sustainability Coordinator, New Rochelle , NY
- Susanne Torriente, Director, Office of Sustainability, Miami-Dade County , FL
- Nichole Hefty, Climate Change Program Coordinator, Miami-Dade County , FL
- Amy Knowles, Organizational Development Administrator, Department of Environmental Resources Management, Miami-Dade County , FL
- Devesh Nirmul, Program Manager, Miami-Dade County , FL
- Susannah Troner, Sustainable Initiatives Coordinator, Miami-Dade County , FL
- Chelsea Albucher, Sustainability Coordinator, Newark , NJ

ABOUT ICLEI–LOCAL GOVERNMENTS FOR SUSTAINABILITY

ICLEI–Local Governments for Sustainability is an international membership association of local governments dedicated to climate protection and sustainability. The organization was established in 1990 with more than 200 local governments from 43 countries and has grown to include more than 1,100 members internationally. ICLEI USA was founded in 1995 with a small group of local government members and has grown to a vibrant network of more than 600 active and engaged members. The mission of ICLEI USA is to build, serve, and support a movement of local governments to advance deep reductions in greenhouse gas emissions and achieve tangible improvements in local sustainability.

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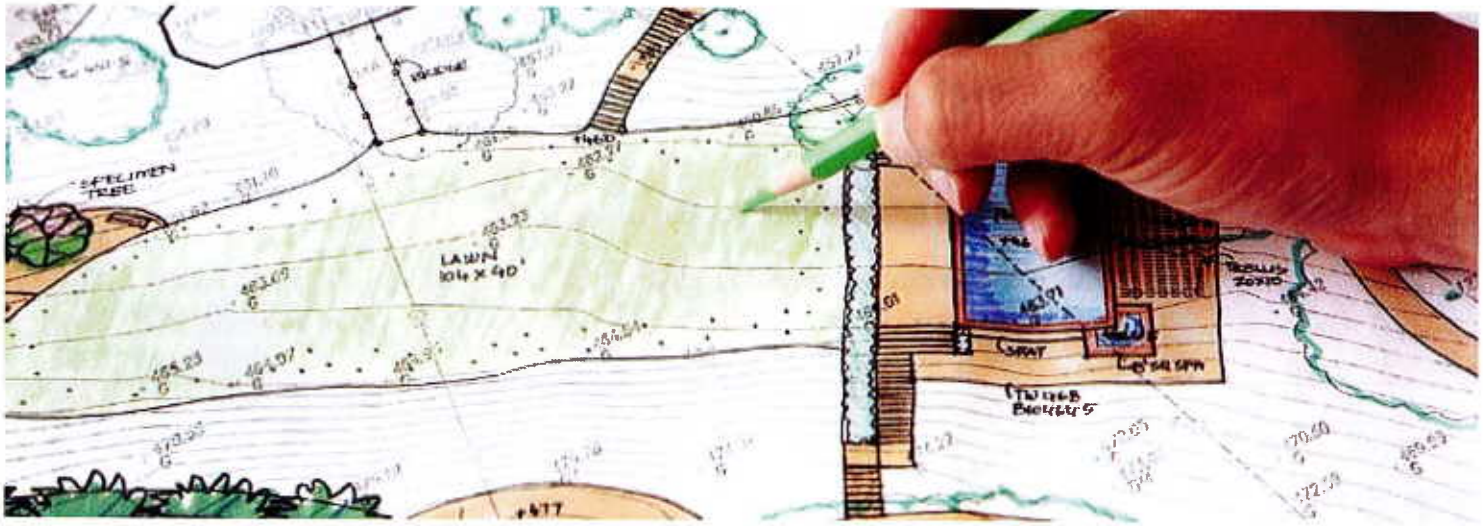


PART I: PLANNING OVERVIEW

WHAT'S INSIDE THIS TOOLKIT

Sustainability is a journey, and ICLEI's toolkit provides the guidelines and resources for any local government to develop a sustainability plan and begin this journey. The toolkit is intended for local governments large and small, including cities, towns, and counties. The primary audience is local government staff responsible for developing and implementing a sustainability plan—typically sustainability coordinators or sustainability directors. Other local government staff involved in the planning process will also find the toolkit useful to understand their role in the bigger picture. Community members or elected officials interested in contributing to the development of a local government's sustainability plan are also encouraged to use the toolkit as a resource.

Recognizing that local governments around the United States are vastly different, this toolkit presents a straightforward yet flexible process for developing a sustainability plan. It can be used by any local government regardless of its structure, geography, size, and available resources. The foundation of the toolkit is the Five Milestones for Sustainability process, which outlines the major steps a local government should follow to improve its sustainability. The Five Milestones for Sustainability are an evolution of ICLEI's Five Milestones for Climate Mitigation and includes the following five major steps:

- Milestone One: Conduct a sustainability assessment
- Milestone Two: Establish sustainability goals
- Milestone Three: Develop a local sustainability plan
- Milestone Four: Implement policies and measures
- Milestone Five: Evaluate progress and report results

Readers will find guidance on both how to structure their planning process and what types of strategies and measures to include in their sustainability plan. This toolkit places particular emphasis on the approach to the planning process, because having a high-quality plan isn't enough. A well-executed planning process is essential because it builds broad support from local stakeholders which leads to a smoother implementation process.

Local governments are encouraged to use the framework of the Five Milestones for Sustainability as a starting point to understand the key steps involved in developing a sustainability plan. The toolkit can be used by local governments at the very early stages of the planning process or by local governments that already have a plan and are preparing to update it.

To assist local governments, the toolkit provides:

- Step-by-step guidelines for how to achieve each milestone
- Tips on what to include in a sustainability plan
- Best-practice examples
- Checklists and templates
- Guidelines for organizing a team of experts to develop the plan

1. INTRODUCTION

What does sustainability mean to local governments? What is a sustainability plan and why is it a good thing for my local government? How does sustainability planning fit in with ICLEI's other tools and programs? Read this introduction for answers to these questions, which provide key background information on sustainability planning.

1.1 SUSTAINABILITY AND LOCAL GOVERNMENTS

Perhaps no group has adopted the maxim, "think globally, act locally" more convincingly than today's local government leaders. Only a generation ago, many of the most complex and far-reaching environmental and socio-economic issues were discussed only at the national and international levels. Not so, today. Visionary local leaders embrace action on climate change, environmental justice, energy independence, natural resource conservation, unemployment, poverty, and public health. They recognize their opportunity to address these issues in collectively powerful ways, and their duty to act, since the impacts of such problems are often felt first at the local level.

Local leaders also recognize that these seemingly disparate issues are inexorably linked because they deal with the same core fact: As a society, we are living beyond our means and will not be able to continue down this path. To address all of these issues is at the heart of sustainable planning. When local governments bring their services, land use, and infrastructure in line with sustainable principles, they can achieve broad benefits for their communities.

1.2 WHAT IS SUSTAINABILITY?

According to the United Nations Commission on Sustainable Development, sustainability means "meeting the needs of the present without compromising the ability of future generations to meet their own needs." The three, interrelated pillars of sustainable development include the environment, social equity, and economic development (see Figure 1). To act sustainably is to balance the aims of these pillars with the need to use resources more efficiently.

Sustainability is not an end goal, but a journey that local governments can take to improve the social equity, environmental, and economic conditions in their jurisdiction. A common framework to guide their efforts is a sustainability plan, which ties together a community's goals, strategies, implementation plans, and metrics for improving sustainability.

This toolkit provides the guidelines and resources for any local government to develop a sustainability plan and begin its journey.

The Three Pillars of Sustainability

Figure 1

1.3 WHY DEVELOP A SUSTAINABILITY PLAN?

Developing a sustainability plan may seem like a daunting task. Yet local governments will find that the benefits of having an overarching plan—one that ties together all of their sustainability policies and programs—will far outweigh the costs of staff time required to develop the plan. A sustainability plan is not only a useful tool for local governments just starting out on their sustainability journey, but also for more "green" jurisdictions that want to package all of their various measures under a single umbrella. Many local governments have already implemented a number of environmental and energy saving programs, often on a one-off basis. However, they often lack a single framework for measuring the impact of their

programs. A sustainability plan provides a means of bringing everything together under a set of goals and metrics and provides a vision for the future development of the jurisdiction. Creating a framework for long-term sustainability is the end goal of developing a sustainability plan, but the planning process itself has a number of benefits for a community as well.

The planning process enables a jurisdiction to:

- Raise awareness within the local community on key challenges and opportunities affecting long-term development and quality of life.
- Develop common goals and build support within the local government and the community for the desired future development of the jurisdiction.
- Increase transparency through a long-term dialogue using public outreach, and demonstrate accountability by openly monitoring and evaluating progress.
- Encourage interdepartmental cooperation by asking tough questions and addressing complex issues.

A sustainability plan provides a common framework for action that has the potential to:

- Use resources more efficiently by identifying opportunities to conserve energy and save money through smart investments with identifiable payback periods.
- Promote smart economic development by creating jobs, increasing the tax base, encouraging development, and increasing the jurisdiction's competitiveness.
- Improve the environment by monitoring and improving local air quality, reducing greenhouse gas emissions, cleaning up waterways, reducing auto dependency by increasing transportation options, decreasing waste, and reducing urban sprawl.
- Create a more equitable society by targeting economic and environmental improvements to communities most in need, and by ensuring that all residents have access to high-quality health care, education, and arts and cultural amenities.
- Lay the groundwork for major investments that can have a dramatic impact on the overall sustainability of the jurisdiction.

As this toolkit will address in the chapter, "Scope of a Sustainability Plan," sustainability is a broad topic that has the potential to address all of these goals. However, every locality is different and local governments need to define their top concerns and priorities.

1.4 RELATIONSHIP TO OTHER ICLEI TOOLS AND PROGRAMS

Besides this toolkit, other ICLEI tools, protocols, and resources can help local governments navigate the Five Milestones for Sustainability process to assess local sustainability, set goals, develop a plan, implement a plan, and monitor implementation progress.

This toolkit also complements the STAR Community Index, which is a voluntary rating system for gauging the sustainability and livability of U.S. communities and is modeled on the successful LEED green building system. STAR is currently being developed through a multi-stakeholder consensus-based process led by a partnership between ICLEI USA, the U.S. Green Building Council (USGBC), and the Center for American Progress (CAP), and

will be launched in 2010. STAR will include a set of indicators and metrics for the three pillars of sustainability: environment, social equity, and economic development. Local governments will be able to use these indicators to develop a baseline of their current sustainability, set targets, and monitor progress, as outlined in the Five Milestones for Sustainability process.

1.5 LESSONS LEARNED FROM NEW YORK CITY

The Five Milestone process in this toolkit is based on the planning process that the City of New York undertook to develop PlaNYC, the City's far-reaching sustainability plan. The case study, "The Process Behind the Plan: How the City of New York Developed PlaNYC, its Comprehensive Long-Term Sustainability Plan," (coming soon) supplements this toolkit, and describes the ins and outs of how City of New York developed PlaNYC. Due to U.S. and international local governments' interest in learning from New York's success, ICLEI and the City of New York's Mayor's Office of Long-Term Planning and Sustainability teamed up to create this toolkit and the case study to share the lessons learned from PlaNYC.

More than 20 City agencies came together to develop PlaNYC, which Mayor Michael Bloomberg released on Earth Day 2007. PlaNYC includes 10 overarching goals and 127 separate initiatives aimed at improving the physical environment of the city and reducing the citywide greenhouse gas emissions 30 percent by 2030. The initiatives in the plan address land use, parks and open space, affordable housing, transportation, air quality, water quality, energy supply and demand, and climate change mitigation and adaptation.

New York has received accolades and policy awards for the strategic and pragmatic approach taken in PlaNYC. ICLEI selected PlaNYC as the model for this toolkit not only because of its high profile, but also because of its comprehensive scope, broad public outreach effort, in-depth best practices research and data analysis, diverse sustainability advisory board, and proactive implementation coordinated by the Mayor's Office. To create the Five Milestones for Sustainability process, ICLEI built on its Five Milestone for Climate Mitigation methodology using New York's PlaNYC development process as a model.

While the magnitude of some of the challenges New York faced might be unique, the lessons learned are applicable to cities and local governments of all sizes. The case study highlights the following key factors for success to develop a high-quality and broadly supported sustainability plan:

- Buy-in from the chief elected official
- Central management and coordination
- Research and analysis to create a fact-driven plan
- Aggressive but achievable initiatives
- Guidance from an external sustainability advisory board
- Inclusive and transparent planning process
- Accountability to the public
- Institutionalization of the plan and updating process

2. SCOPE OF A SUSTAINABILITY PLAN

Before launching into the planning process, review this section for useful background information to take into consideration when starting to define the scope of your sustainability plan.

2.1 SUSTAINABILITY PLANS VS. CLIMATE ACTION PLANS

Local governments considering their approach to responding to climate change and addressing sustainability issues have several options. The most common approaches are either a sustainability plan or a climate action plan. Although the two are similar, they differ in scope and overall approach to framing the issues. A sustainability plan can be considered a climate action plan with a broader, more holistic view on community sustainability.

Climate Action Plans

A climate action plan focuses primarily on reducing greenhouse gas emissions, including emissions resulting from both the local government's operations and from the community as a whole. It typically includes an analysis of the opportunities to reduce greenhouse gas emissions resulting from energy use in transportation, solid waste disposal, buildings, lighting, and waste water treatment and water delivery. Some local governments also include environmental opportunities beyond reducing energy consumption—such as the development of renewable energy resources, the conservation of natural resources, forestry (urban and beyond), agriculture, and green jobs. A climate action plan often addresses the co-benefits of its initiatives, such as improving air quality and public health or reducing stormwater runoff. However, a climate action plan does not explicate these other issues as thoroughly as a sustainability plan. For more information on climate action planning, visit ICLEI's website: www.icleiusa.org/action-center/planning.

Sustainability Plans

A sustainability plan typically includes an overarching goal to reduce greenhouse gas emissions, in addition to addressing a set of environmental, economic, and social equity goals. It takes into account the interrelated issues of climate change, population change, land use, infrastructure, natural resource management, quality of life, public health, and economic development. Both short-term and long-term measures that can quantifiably impact these issues should be included in a sustainability plan. A sustainability plan should not only include a goal to reduce greenhouse gas emissions and mitigate other environmental issues, but also goals to equitably improve land use practices and infrastructure such as by increasing open space, reducing storm-

water runoff, or providing more affordable housing options. The plan should recognize and highlight how its measures can help achieve multiple sustainability goals. Social equity should be a crosscutting theme in the plan and each measure should be designed so that the benefits will be distributed across the community.

Choosing a Plan

Local governments should identify the issues they want to address in their plan and then determine whether a climate action plan or a sustainability plan is appropriate. For either type of plan, local governments should start by performing a greenhouse gas emissions inventory for government operations and the community. Some local governments may elect to begin their sustainability efforts with a focused climate action plan, and then in the future, expand its scope to become a sustainability plan. Whereas other local governments might prefer to look at all of the sustainability issues holistically and develop a more comprehensive sustainability plan from the beginning. Local governments may also choose the type of plan that is appropriate for their community based on the community's resources and priorities. In some jurisdictions taking local action against climate change might be the primary driver for the plan, however in others, concerns such as poor air quality or a polluted wetlands might be more pressing concerns that could be addressed within the broader context of a sustainability plan.

	Climate Action Plan	Sustainability Plan
Goal of plan:	• Reduce GHG emissions from government operations and community	• Reduce GHG emissions from government operations and community • Improve local sustainability around issues such as land use, housing, open space, education, arts, or civic engagement
Typical timeframe to develop the plan:	• Develop greenhouse gas emissions inventory: 3–5 months • Develop climate action plan: 4–6 months	• Develop sustainability assessment, including a greenhouse gas emissions inventory: 4–6 months • Develop sustainability plan: 6–9 months
Staff resources required to develop plan:	• Sustainability coordinator (or similar) plus an interdepartmental team • Regular team meetings to develop measures for plan	• Sustainability coordinator (or similar) plus an interdepartmental team • Regular team meetings to develop measures for plan
Level of outreach required:	• Depends on size of the community • Moderate level of outreach required, that can involve multiple methods or just a few town hall meetings	• Depends on size of the community • Broad public outreach using a variety of methods, such as town hall meetings, neighborhood level meetings, and public websites
Metrics to measures implementation success:	• GHG emissions	• GHG emissions • Other sustainability indicators, i.e. tree canopy, air quality, sewer overflows

Comprehensive, General, and Master Plans

Many municipalities in the United States are mandated through state or local legislation to develop comprehensive, master, land use, or general plans. Like a sustainability plan, these plans provide a vision for the long-term development of the municipality and include land use, infrastructure, and natural resources plans. However, these plans historically have focused on controlling and guiding development, not addressing energy use, climate change, or natural resource issues. Nor have they typically included policies for reducing greenhouse gas emissions—a central component to a sustainability plan. Recognizing that local governments have limited resources to develop various required and voluntary plans, this toolkit can be used by local governments that want to develop a standalone sustainability plan or integrate sustainability into their comprehensive plan.

2.2 TYPICAL ELEMENTS OF A SUSTAINABILITY PLAN

Local governments should ensure that the scope of their sustainability plan addresses the most pressing challenges and includes measures that are implementable and achievable.

The plan also needs to be accessible and easily understandable to the general public. To do this, it must clearly explain the key sustainably challenges, high-level sustainability goals, and the rationale for each measure. A sustainability plan should include:

- Facts, charts, and figures from the sustainability assessment, including a greenhouse gas emissions inventory of government operations and the community, to illustrate key challenges to be addressed in the plan
- Goals to set a vision and framework for the plan, including an emissions reduction target for the short, medium, and long-term (e.g., a target within the next five to 10 years and a target to reduce emissions 80 percent by 2050)
- Measures with clear implementation plans covering timing, funding, and responsibilities
- A clear explanation of how the measures will achieve the goals and address the challenges, and an estimation of the greenhouse gas emissions reduction potential of each measure
- Short-term measures with targets within the next five years
- Long-term measures with targets over the next 10 to 20 years
- A timeline and framework for monitoring implementation process and updating the plan

Refer to the sample outline for a sustainability plan (in your toolkit folder) for more details on what to include in the plan.

The scope of a sustainability plan will vary by jurisdiction based on local challenges and needs. A list of all of the potential topics that could be addressed in a sustainability plan is provided below, based on the planning areas in the STAR Community Index:

Environment

- Natural Systems (ecosystems and habitat, water and stormwater, air quality, waste, and resource conservation)
- Planning and Design (land use, transportation and mobility, and parks, open space and recreation)
- Energy and Climate (energy, greenhouse gas emissions and other air pollutants, renewable energy, and green building)

Economy

- Economic Development (clean technologies and green jobs, local commerce, tourism, and local food system)
- Employment and Workforce Training (green job training, employment and workforce wages, and youth skills)

Society

- Affordability and Social Equity (affordable and workforce housing, poverty, human services and race and social equity)
- Children, Health, and Safety (community health and wellness, access to health care, and public safety)
- Education, Arts, and Community (education excellence, arts and culture, and civic engagement and vitality)

This list provides a starting point for local governments to consider when scoping their plan. Each local government needs to ensure that the plan promotes sustainable development, meets the needs of its constituencies, and can realistically be implemented.

To date, few sustainability plans have comprehensively addressed all of the topics listed above. Most local governments choose to focus on the physical environment and natural resources, and thereby support economic development and social equity goals through infrastructure and quality-of-life improvements that distribute resources more equitably. Some local governments have elected not to address all these topics in one plan because they already had programs or plans in place to address specific issues such as education or health care and did not want to duplicate efforts. Should this be the case, local governments are encouraged to spell out how the sustainability plan aligns with the goals and measures in any associated plan.

For examples of what other local governments have included in their plans, refer to the Sustainability and Climate Action Plan Examples in your toolkit folder.

3. OVERVIEW OF THE FIVE MILESTONES FOR SUSTAINABILITY

ICLEI developed its Five Milestones for Sustainability to be used as a framework to guide local governments through the process of developing a sustainability plan, and to recognize their achievements when they complete each milestone. This section provides a brief description of each milestone and the How To Develop a Sustainability Plan section of the toolkit includes the step-by-step guidelines, tips, and resources for each milestone.

Figure 2

This section also provides a description of the requirements to achieve an award from ICLEI for achieving each Milestone. ICLEI provides awards to its members to recognize their progress in the Five Milestones for Climate Mitigation, and will now expand this practice to include the Five Milestones for Sustainability. Local government staff are encouraged to apply for an award after achieving each milestone, so they can receive national recognition for their progress, as well as recognition from their elected officials, constituents, and peers.

Pre-Milestone Planning: Make Commitment and Organize Team

Prior to beginning the Five Milestone process, the top elected official should make a commitment to develop a sustainability plan and designate a sustainability coordinator to coordinate the planning process. The sustainability coordinator should organize a team of contributing departmental staff and external experts. Before launching into the planning process, the sustainability coordinator should develop a workplan and outreach strategy to guide the planning process. As described in the Five Milestones for Sustainability process guidelines, public outreach should be incorporated into each milestone, as shown in Figure 2.

Public Outreach

Two of the central principles of sustainability planning are transparency and inclusiveness. To adhere to these principles while developing a plan, local governments should include the public throughout the planning process. Public outreach is not considered a milestone itself, since it is part of each step in the Five Milestone process.

Milestone One: Conduct a Sustainability Assessment

Assess the sustainability of the jurisdiction using a set of metrics to understand the key challenges.

To start the planning process, a local government needs to first research and assess environmental, economic, and social equity challenges within the jurisdiction—and the current programs in place to address these issues. This can either take the form of a quick-action assessment or a comprehensive assessment. In either case, a local government needs to develop a greenhouse gas emissions inventory for both government operations and the community, using ICLEI's tools and protocols. The inventory will be one of the primary sources of information to guide the planning process and identify opportunities to reduce emissions.

A quick-action assessment involves developing a greenhouse gas emissions inventory for government and community emissions using, along with a high-level quantitative or a detailed qualitative assessment of the sustainability challenges. A comprehensive assessment involves a more extensive data analysis. It takes into account all (or most) of the data categories in the Sustainability Assessment Checklist (in your toolkit folder), which include the quick-action assessment data categories along with a more rigorous analysis of infrastructure capacity, land use patterns, and natural resources issues. Challenges addressed in the sustainability assessment could include population loss, greenhouse gas emissions, high housing costs, poor air quality, rising energy costs, limited energy supply, flooding risks, endangered natural resources, or aging infrastructure.

Local governments should start by casting a wide net and looking at a broad set of issues using the Sustainability Assessment Checklist, in order to define the high-priority topics they would like to address in the sustainability plan. The sustainability assessment should not only include an analysis of hard numbers, but should also take into account public concerns and priorities. This baseline assessment will help define the scope of the plan and will be used as a platform for action to communicate to the public the key challenges facing the jurisdiction. It will also help to highlight successful existing programs that can be expanded and will identify gaps where opportunities for improvement exist.

ICLEI MILESTONE ONE AWARD REQUIREMENTS

- ☐ Completion of a comprehensive GHG emissions inventory including both community and municipal operations
- ☐ Analysis and baseline assessment of sustainability indicators
- ☐ Submittal to ICLEI of all data (from software tool)
- ☐ Submittal to ICLEI of a report summarizing the results from the inventory and sustainability indicator assessment

Milestone Two: Establish Sustainability Goals

Establish sustainability goals to define the overarching objectives of the sustainability plan.

In parallel to researching the challenges in Milestone One, a local government needs to develop a set of goals that will set the vision and framework for the plan. The goals are used to define the scope of the plan and to provide a framework for public outreach. They should include a greenhouse gas emissions reduction target along with other goals, such as those related to natural resources, transportation, land use, energy, water, waste, air quality, economic development, education, health, and housing.

ICLEI MILESTONE TWO AWARD REQUIREMENTS

- ☐ Development of set of goals to address sustainability issues, including an emissions reduction target
- ☐ Written verification from a staff or elected official liaison that the local government has committed to the goals and the specific target

  Or

- ☐ Inclusion of goals and a reduction target in an approved emissions inventory report that is submitted to ICLEI

Milestone Three: Develop a Local Sustainability Plan

Develop a set of measures that enable the jurisdiction to achieve the sustainability goals.

The next step in the process is to brainstorm all possible strategies for achieving the goals. Strategies are the high-level approaches to address the key challenges. Within one strategy, such as "promote green building," there can be a number of measures that are required to implement the strategy. After identifying the strategies, local governments should then create and analyze the potential measures, such as specific policies, projects, or other actions.

Measures should have a clear implementation plan, including designation of a responsible department/party, funding source, timeline, next steps, short- and long-term milestones, and indicators for measuring progress. In addition, the plan should illustrate how each measure helps to achieve the goals of the plan. To allow the local government to track progress during Milestone Five, baseline data for each indicator also needs to be gathered.

In parallel to developing the plan, local governments need to engage in a significant level of public outreach to provide a diversity of constituents the opportunity to contribute ideas for the plan. Outreach can include town hall–style meetings, focus groups, and a website set up for public comment. Public outreach can last anywhere from a couple of months to a year and is an essential step in the process to ensure the public supports the plan.

To complete Milestone Three, local governments need to publicly release and/or adopt their sustainability plan, which should include an implementation plan for each measure. Local governments should estimate the costs for the measures in the plan and prioritize the measures based on impact, budgetary constraints, and implementation timeline.

ICLEI MILESTONE THREE AWARD REQUIREMENTS

- ☐ The completion and formal approval of a sustainability plan highlighting existing and proposed reductions for municipal and/or community emissions and measures to improve the overall sustainability of the community
- ☐ Submittal to ICLEI of an electronic copy of the plan

Milestone Four: Implement Policies and Measures

Implement the sustainability plan and track implementation progress.

After the local government releases its sustainability plan, implementation should begin immediately. The various local government departments should be responsible for implementing the plan and the sustainability coordinator should coordinate and monitor the implementation progress. It is difficult to work on all measures at once, so local governments need to be strategic in how they utilize their staff resources to implement the plan. It is highly recommended that a local government prioritize the measures identified in the sustainability plan and go after the quick wins first, while at the same time begin planning for larger-scale measures that have a longer implementation timeframe. Implementing the quick wins first will serve to maintain the momentum generated through the planning process and will lay the groundwork for implementing the longer-term measures.

ICLEI MILESTONE FOUR AWARD REQUIREMENTS

- ☐ Quantification of a minimum of 50 percent of the measures outlined in the local government's sustainability plan.
- ☐ All quantification data and methodology must be verifiable by ICLEI

Milestone Five: Evaluate Progress and Report Results

Report on the implementation progress of the sustainability plan.

Local governments should publish an annual progress report on the implementation status of the measures in the sustainability plan. The progress report should include a description of the actions taken and the next steps in the upcoming year and beyond. In addition to the progress report, local governments should track their performance using a set of sustainability indicators. Local governments should update their greenhouse gas emissions inventory on a regular basis, at a minimum once every five years, although ICLEI recommends updating it more frequently. Many local governments opt to update their inventory annually.

The Five Milestone process restarts when it is time to update the plan. ICLEI recommends that local governments define a periodic timeframe for updating the plan (e.g., once every five years), to ensure that the plan meets the changing needs and conditions of the jurisdiction, and is an active part of the political agenda.

ICLEI MILESTONE FIVE AWARD REQUIREMENTS

- ☐ Annual progress reports submitted to ICLEI on measures outlined in the sustainability plan
- ☐ The completion of an updated inventory within five years of the baseline year
- ☐ Submittal to ICLEI of all data (from software tool)
- ☐ Submittal to ICLEI of a report summarizing the results

4. FORMING A TEAM

Bringing together the right people is an essential first step in the planning process. Given the complexity of a sustainability plan, a local government needs to draw on a diversity of experts knowledgeable in a range of fields. One of the lasting benefits of a collaborative planning process is that it builds new relationships both within and outside the local government. It will also help key stakeholder groups expand and build on their networks and will break down the silos within local government departments to encourage greater levels of collaboration.

The size and nature of the team involved in developing the plan can vary for small and large local governments. However, one thing that is consistent for both is that all of the relevant departments need to be involved and a group of local experts should come together and advise the jurisdiction throughout the Five Milestone process. While the team organization outlined in this toolkit is applicable to local governments of all sizes, smaller local governments may want to also check out ICLEI's Small Communities Toolkit for additional guidance.

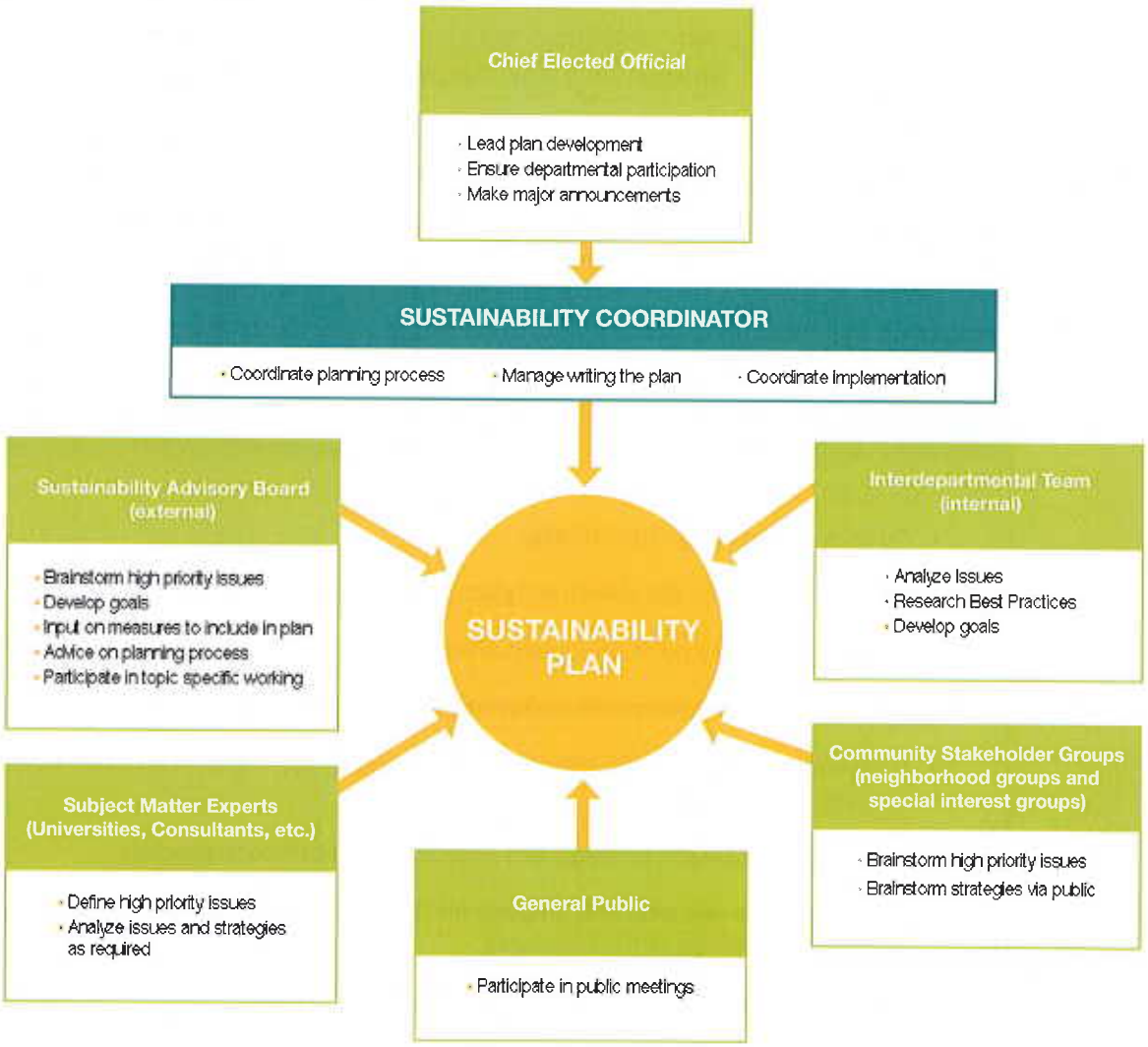


Figure 3: Stakeholders involved in developing a sustainability plan

Figure 3 illustrates the stakeholders involved in developing a sustainability plan: the chief elected official, interdepartmental team, sustainability advisory board, subject matter experts, key stakeholder groups, and the public at large. With such a diversity of stakeholders contributing to the plan, the sustainability coordinator plays an essential role of bringing everyone together, facilitating dialogue, and ultimately managing the decision-making process for the measures that go into the plan.

The roles and responsibilities for each of the stakeholder groups are defined below and are intended to be a guideline for local governments. Some local governments may choose to modify these roles and responsibilities to address their unique local needs and available staff resources. The roles defined here assume that the interdepartmental team is comprised of local government staff and the sustainability advisory board involves a group of external advisors. However, many local governments have combined these two groups into one to reduce the number of meetings and to have the local government staff working more closely with the advisory board.

Sustainability Coordinator

No matter the size of the jurisdiction, each local government needs someone responsible for the development and implementation of the sustainability plan. Developing a sustainability plan is a major undertaking with many moving pieces that requires someone to keep the effort on target in terms of its vision, scope, and overall timeline. Depending on available staff resources and the size of the local government, the sustainability coordinator could be focused on the plan full-time or part-time. The coordinator could either be an existing staff member who is tasked with coordinating the plan, or a new hire. At a minimum, ICLEI recommends that local governments designate a sustainability coordinator who is available at least part-time to work on the plan, although a full-time staff person is preferable.

Given the broad scope and the number of stakeholders involved in the planning process, the sustainability coordinator plays a critical role in bringing everyone together, sharing ideas, and facilitating the process. The coordinator should participate in all of the sustainability advisory board, working group, interdepartmental, and outreach meetings, and keep them focused on the desired outcomes. Although the interdepartmental team is responsible for developing and vetting potential measures, the sustainability coordinator needs to be well versed in all of the issues to guide and often "push" the planning process forward.

SUSTAINABILITY COORDINATOR

RESPONSIBILITIES:

- Develop and manage the timeline
- Ensure buy-in from the chief local elected official(s) and department directors
- Act as the primary point of contact within the local government and externally
- Convene and coordinate the sustainability advisory board
- Convene and facilitate the interdepartmental team and the sustainability advisory board working group meetings
- Develop the outreach strategy and coordinate the outreach process
- Coordinate the research and analysis for the sustainability assessment, goal setting, and analysis and vetting of the measures
- Manage the writing and production of the plan
- Coordinate the implementation of the plan
- Monitor and report on implementation progress

For help with your hiring process, see ICLEI's Sample Sustainability Coordinator Job Descriptions (in your toolkit folder)

Approximate time commitment: 20–40 hours per week

Interdepartmental Team

Fostering an environment for interdepartmental collaboration is one of the key components of a successful planning process. The planning process will help to break down departmental silos and encourage local government staff members to collaborate on issues that cross multiple departmental boundaries. Local governments will find that the planning process will spark a new way of thinking and will help to build new relationships within the government to create an atmosphere for innovative problem solving.

Developing a sustainability plan requires participation and commitment from a variety of governmental departments. The chief elected official should communicate that this effort is a top priority to ensure the relevant departments commit the appropriate staff resources to the plan. Departmental directors should assign a departmental liaison to participate in the interdepartmental team and ensure that the team member can devote sufficient time to the plan.

The interdepartmental team is responsible for researching best practices, gathering data for the sustainability assessment, and vetting potential measures. Typical departments involved in the team include public works, planning, transportation, buildings, environmental protection, parks, sanitation, housing, economic development, public health, and education.

INTERDEPARTMENTAL TEAM

RESPONSIBILITIES:

- Gather and analyze data for the sustainability assessment
- Analyze existing sustainability programs or measures
- Research best practices from other jurisdictions
- Analyze and vet strategies and measures for the plan
- Write chapters of the plan
- Manage implementation of relevant measures

Approximate time commitment: 4–8 hours per week

Sustainability Advisory Board

A major interdisciplinary effort like a sustainability plan requires guidance and advice from a diverse external group of experts on a sustainability advisory board. In their capacity of contributing ideas and guidance, board members should act as representatives of their various constituency groups in addition to being demographically diverse. The board should be comprised of a variety of stakeholder groups focused on big-picture issues rather than specific interests, including environmental and community advocates, business leaders, real estate developers, planners, philanthropists, academics, and labor leaders who can act as representatives for their constituency groups. In addition, local governments may also want to include representatives from regional planning, state, or county offices on the sustainability advisory board. Forming the board requires striking a balance between being inclusive while ensuring that the board stays small enough to be manageable and productive.

In order to receive constructive input from the sustainability advisory board on specific strategies and measures, separate working groups should be formed to allow for in-depth analysis. The working group meetings should focus on the details of the plan. The full board meetings should share information from the working group meetings to ensure coordination between working groups and to ensure all ideas are aligned with the big picture.

Interdepartmental team members should be included in these working group meetings and should use these meetings as a venue for floating policy ideas and receiving feedback. Sustainability advisory board members should attend working group meetings themselves, but since they will tend to be very busy people, they should be allowed to send a representative from their organization with expertise in the issues. It works best when there is one representative who attends all the meetings so they stay abreast with the issues.

After the plan is released, the role of the sustainability advisory board can shift to advising on the implementation of the plan and/or monitoring implementation of the plan. Some local governments may choose to "sun-shine" their boards after the plan is developed, whereas others may continue to keep the board involved in the plan development.

SUSTAINABILITY ADVISORY BOARD

RESPONSIBILITIES:

- Provide strategic guidance on the scope and goals of the plan
- Review the findings of the sustainability assessment
- Provide input on the strategies for the plan
- Gather data for the sustainability assessment and research best practices
- Participate in in-depth working group meetings
- Provide input and feedback to the interdepartmental team on strategies and specific measures

Approximate time commitment: 4–7 hours per week

Elected Officials

No matter the governance structure of a local government, it is essential to have buy-in to develop the sustainability plan from at least one elected official, preferably the chief elected official. The chief elected official will play a critical role in communicating key messages to the public, ensuring the commitment and participation of government departments, and in providing a public face to the plan to ensure governmental accountability in implementing the plan.

Although the chief elected official may not initially lead the charge to develop a sustainability plan, the sustainability coordinator and departmental directors will need to ensure that the chief elected official supports the planning process and understands how the plan fits into the overarching goals of the community.

Key Stakeholder Groups

Although the sustainability advisory board is designed to be inclusive and to represent a diversity of constituency groups, it is often necessary to reach out to additional stakeholder groups directly to ensure that they have the opportunity to contribute their ideas and have their voices heard. This will allow for greater participation and buy-in and ensure that groups representing specific interests are able to contribute to the process. The meetings should not only include environmental advocacy groups but also other active interest groups, even if they do not typically work on sustainability issues. These meetings can be held with individual groups or with a number of groups who are interested in similar issues. Their feedback and insight should be documented and disseminated to the advisory board and interdepartmental team and their ideas should be incorporated into the plan.

General Public

To create a fully inclusive and transparent process, the public-at-large should have the opportunity to provide input into the plan through a variety of outlets. These can include public meetings, smaller meetings with key stakeholder groups, a website for public comment, and online forums. In addition to asking the public for their input, local governments can also use public meetings as an opportunity to educate the public about the challenges the locality faces, sustainability issues, and climate change. Public meetings can be a great way to start a dialogue about how individuals can make a difference by making small changes and more informed decisions; meetings can also prepare them for any major transformative measures that may come out of the plan.

External Experts

External experts, such as local universities, nonprofits, or consultants, may be tapped to help with specific sections of the plan or to provide overall support or advice. Local governments are encouraged to seek academic partners to aid in the development of their sustainability plan, particularly if it complements the institution's existing research programs. Many local governments have also been able to solicit pro-bono assistance from local research institutions or consultants. Some local governments may elect to hire a consultant to help develop the plan or to provide a rigorous analysis to support certain aspects of the plan. Regardless of the level of external support a local government receives, it is necessary for the government to take full ownership of the planning process and the measures in the plan. All measures in the plan should be vetted internally to ensure that they are implementable and supported by the relevant departments.

PART II: HOW TO DEVELOP A SUSTAINABILITY PLAN

The Sustainability Planning Toolkit now shifts from providing background information and a general overview of sustainability planning, to specific how-to steps for individual local governments ready to begin their planning process.

5. PRE-MILESTONE PLANNING: MAKE COMMITMENT AND ORGANIZE TEAM

Before beginning the Five Milestones for Sustainability process, spend some time getting organized and building support for the planning process itself. First and foremost, the chief elected official needs to support the planning process and convey to the local government departments the strategic importance of the sustainability plan. Designating a sustainability coordinator and forming the core team involved in developing the plan—an internal team of experts and an external advisory board—will help to kick off the process and make sure everyone understands the process, the goals, and how to contribute to development of the plan.

Before launching into the Five Milestone process, it is also important to develop a workplan for the planning process and to start thinking about the public outreach process, since this is a major component of the planning process. Also, begin to gather ideas for the scope of the plan from the advisory board, local experts, and the interdepartmental team. Finally, announce the planning process to the public in order to generate excitement and communicate the strategic importance of the sustainability plan.

This section lists the tasks that should be undertaken in the pre-planning stage. Although there is an order to the tasks, local governments can complete the tasks within this phase and for the subsequent milestones in whatever order is most appropriate.

TASKS:

1. **Designate a sustainability coordinator to manage the planning process and the development of the plan.**
   - Coordinate centrally: Manage the planning process out of the mayor or chief elected official's office to facilitate cooperation between local government departments and to provide executive level leadership throughout the planning process.
   - Define the expected time commitment of the coordinator based on available resources and timeline for developing the plan.
   - Refer to the sample job descriptions on ICLEI's website for ideas for the responsibilities and required qualifications for a sustainability coordinator.
2. **Make a commitment: obtain chief elected official/mayoral buy-in for the plan.**
   - Get buy-in from the top: make sure the chief elected official supports the planning process.
   - Have the chief elected official announce to the local government staff that the sustainability plan is a priority.

- Pass a resolution to commit the jurisdiction to developing the plan.
- Work with the chief elected official to establish the overarching vision and purpose of the plan to frame the planning effort

3. Organize an interdepartmental team of local government staff to develop the plan.

- Use the Team Formation Checklist (in your toolkit folder) as a guideline for forming the team.
- Recruit/appoint interdepartmental team members and communicate the time commitment and expectations to the team members.
- Define the expectations of interdepartmental team and recruit/appoint members.
- Identify the departments to include in the interdepartmental team. Typical departments to include in the planning process are Public Works, Transportation, Planning, Environment, Economic Development, Parks, Housing, Buildings, Health, Education, and Sanitation.
- Kick-off interdepartmental team meetings with an initial meeting to communicate their roles and responsibilities and to get their input on the major sustainability challenges in the jurisdiction.
- Schedule regular interdepartmental team meetings to keep the planning process moving forward and to make sure the team is committed and engaged.

TIPS TO CREATE AN EFFECTIVE TEAM

Be inclusive: make sure the key departments are involved in the planning process, but invite all departments to participate, and encourage them to think about what sustainability means to their operations.

Communicate the importance of the interdepartmental team: have the mayor or chief elected official speak to the team at a kick-off meeting or send a memo explaining their role and asking them to make the sustainability plan a priority.

Ensure that departmental directors assign staff to participate in the interdepartmental team and that the staff have sufficient time available in their work-plans to work on the plan.

Incorporate interdepartmental team participation into job descriptions and roles and responsibilities.

4. Form a sustainability advisory board.

- Recruit and appoint sustainability advisory board members representing a diversity of constituency groups, including environmental and community advocates and labor and business leaders who will help shape the scope and recommendations in the plan. Do not be shy about appointing those who may have disagreed with the administration in the past. The advisory board should include the top representatives from various constituency groups, regardless of their political positions.

- Define the role of sustainability advisory board and communicate expectations and expected time commitment to board members
- Establish sustainability advisory board–working groups. Working groups can be focused around specific goals or planning areas such as transportation and land use, waste, water, housing and parks, energy and buildings.
- Create a meeting calendar for both the full sustainability advisory board and working group meetings to clarify the time commitment for the board members upfront.
- Keep the board manageable while making it inclusive.
- Make formal appointments to the board: The mayor or highest elected official should appoint the board members to ensure the stature and attention needed to participate in intensive meetings.
- Announce the sustainability advisory board through a press release or public announcement.
- Be open about concerns and differing opinions: Promote an open dialogue with the sustainability advisory board regarding any concerns they have about the advisory board process or the overall planning process.

5. Develop a workplan for the planning process and for public outreach.

- Establish a timeline for developing the plan. Use the Sample Timeline (in your toolkit folder) as an example. Act with a combination of urgency and patience: The timeline for the planning process should be aggressive to move things forward and to make the plan a high priority. However it should also allow for sufficient time for public outreach and in-depth analysis of possible strategies. Allowing for six months to one year for the planning process should provide most local governments with enough time for outreach and analysis.
- Develop a draft outreach and public communication plan, using the Outreach Planning Template (in your toolkit folder) and ICLEI's Outreach and Communications Guide.
- Develop a schedule for the sustainability advisory board meetings and working group meetings.

6. Kick off sustainability advisory board meetings.

- Designate a facilitator for the sustainability advisory board meetings—either the sustainability coordinator or a third party.
- Decide if you want to make the minutes of the sustainability advisory board and working group meetings public. Keeping the minutes confidential allows for more candid dialogue; however, publicly releasing the minutes increases the transparency of the process.
- Hold regular and frequent working group meetings to ensure that policy ideas are fleshed out with sufficient detail and rigor, but make sure that the participants are not overloaded with unnecessary meetings.
- Use the working group meetings for analyzing strategies and fleshing out the details of proposed measures.
- Focus on higher-level strategic discussions during the full sustainability advisory board meetings, and share key takeaways and ideas from the working group meetings to cross-pollinate ideas.

TIPS FOR EFFECTIVE BOARD MEETINGS

Keep the meetings on track: Establish the objectives and set the parameters for the sustainability advisory board and working group meetings.

Treat board members equally: Make sure all opinions are taken into consideration, no matter who the board member represents.

Allow board members to send delegates to working group meetings: Acknowledge that these representatives have busy schedules and allow the members to send their own staff member to participate in the working group meetings if that are unable to attend, but ensure they commit to participating in every full board meeting in person.

Promote cross-pollination of ideas: The interdepartmental team should attend working group meetings so they share ideas and exchange feedback with the working group participants.

7. Gather ideas for the scope of the plan.

- Begin the outreach process with key stakeholder groups and departmental directors to gather ideas for what issues should be addressed in the plan.
- Perform preliminary best practices research to understand the types of measures that could be included in the plan. Start by reviewing the Sustainability Strategies Matrix.

- Set up informal meetings with the leading environmental or community advocates to learn about their top sustainability issues and any work they are doing to address these issues.

8. Launch and publicly announce the planning process.

- Publicly announce the goal to develop a sustainability plan and the vision and purpose of the plan. Announce the planning process and the new positions and boards charged with the plan development—the sustainability coordinator, sustainability advisory board, and interdepartmental team.
- Create a website (or webpage) to publicly announce the plan and the opportunities for the public to participate in the planning process.
- Build on past successes: Identify past achievements and recognize the work done already as part of the announcement of the plan.

TOOLS/TEMPLATES

- Example Timeline (in your toolkit folder)
- Sustainability Team Formation Checklist (to help with the formation of the interdepartmental team, sustainability advisory board, and working groups).
- Outreach Planning Template
- Sustainability Strategies Matrix

BEST-PRACTICE EXAMPLES

City of New York, NY: Forming the Team

To coordinate the development of PlaNYC, Mayor Bloomberg formed the Mayor's Office of Long-Term Planning and Sustainability in September 2006. Prior to forming this office, the Office of the Deputy Mayor for Economic Development coordinated the process. Initially, the Deputy Mayor tasked over 20 City agencies with analyzing the impacts of population growth on the city's infrastructure and developing recommendations to address these impacts for what was originally going to be a strategic land use plan. It was not until after the City agencies had performed a significant amount of research and analysis over the course of a year that the City decided it was necessary to form a distinct office to coordinate the planning process. The City hired new staff with expertise in the various planning areas and moved key City agency staff into the newly formed Mayor's Office.

The 20 City agencies involved in the planning process functioned as the City's interdepartmental team and were responsible for researching best practices, analyzing issues, and developing the strategies and initiatives for PlaNYC.

The City formed a 17-member sustainability advisory board comprised of elected officials, business leaders, environmental and community advocates, labor leaders, planners, and real estate developers. To allow for in-depth discussions on specific strategies and initiatives, the Mayor's Office organized a number of working groups for the sustainability advisory board and the interagency team, focused on:

- Green buildings and energy consumption
- Energy supply and distribution
- Transportation
- Infrastructure and natural systems
- Waste management
- Land use and brownfields
- Climate change adaptation

The City used pro-bono consultants to facilitate the planning process in the beginning and hired consultants to lend analytical support to the transportation and energy chapters, since these were two of the most complex aspects of the plan and the City didn't have the expertise to do it alone. In addition, the Mayor's Office leveraged the expertise from Columbia University's Earth Institute on Sustainable Development for analysis and advice on key issues and potential strategies.

City of Baltimore, MD: Using Existing Staff & Forming a Sustainability Commission

Baltimore's City Council created a sustainability commission that is charged with developing, vetting, and implementing the sustainability plan. The commission is modeled on a planning commission and has 21 politically appointed positions for four-year terms. Four of the positions are designated for City staff and 17 for citizens. One of the first tasks of the commission was to develop a set of guiding principles for the planning process. The commission agreed that inclusiveness, engagement, and translation (i.e., communicating ideas in ways that are meaningful to citizens) were all principles that would underpin the planning process. To develop specific measures for the plan, the commission split up into working groups chaired by the commission members.

To coordinate the planning process for Baltimore's sustainability plan, Mayor Sheila Dixon created an Office of Sustainability within the Department of City Planning. The City moved four staff members from the Department of City Planning and the Office of the Environment into the Office of Sustainability, and designated one project manager to coordinate the planning process full-time and one manager to oversee the planning process part-time.

Demonstrating her commitment to the sustainability plan, the mayor asked all City departments to dedicate staff resources to support the planning process. Since the Office of Sustainability was placed within the Department of City Planning, they were able to work closely with the City Planning staff and to leverage their expertise and their ties to local community and advocacy organizations.

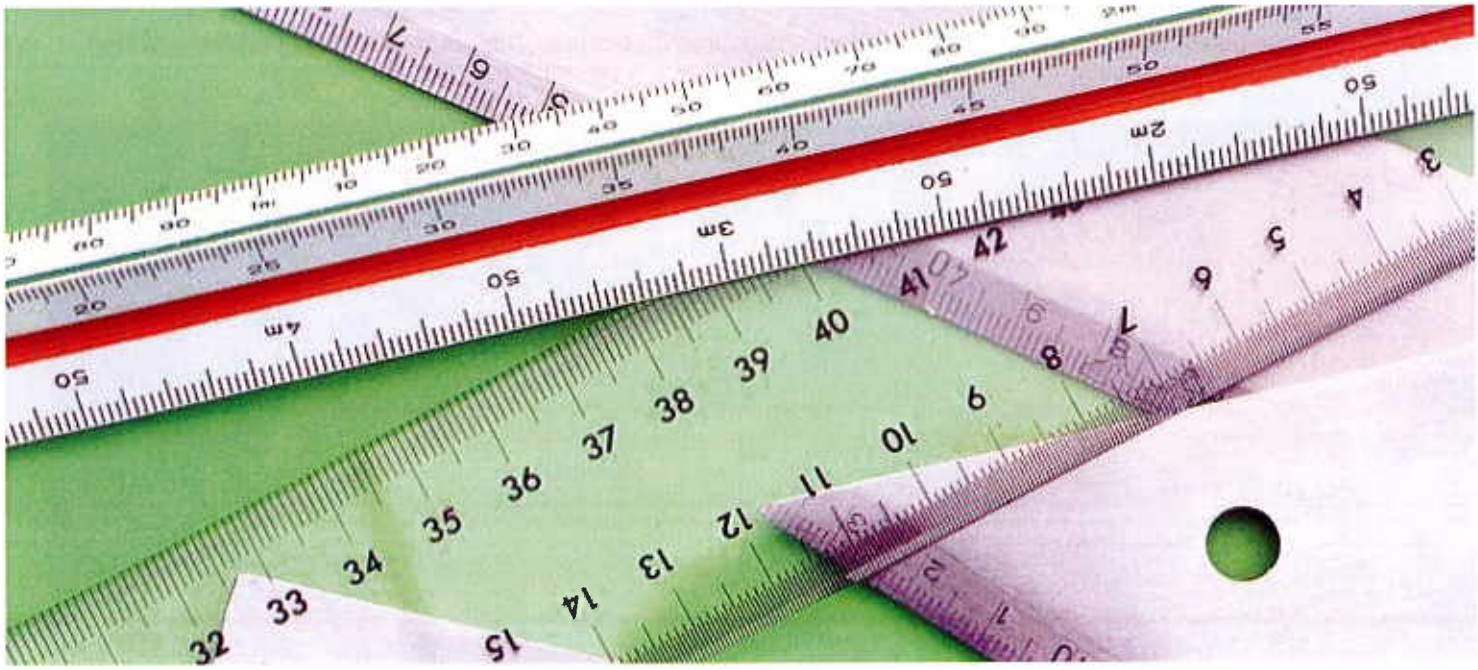
Baltimore began the planning process in summer 2008 and the City Council approved the Baltimore Sustainability Plan in March 2009.

6. FIVE MILESTONES FOR SUSTAINABILITY

6.1 MILESTONE ONE: CONDUCT A SUSTAINABILITY ASSESSMENT

Milestone Purpose: To start the planning process with a baseline understanding of the major sustainability challenges in a jurisdiction in order to identify the key issues to be addressed in the plan.

Milestone Description: The sustainability assessment involves inventorying the existing measures that have been implemented, defining a set of sustainability indicators, gathering data for those indicators, and developing a sustainability assessment report. This process will help to identify the major sustainability challenges in the jurisdiction and to understand the measures that have already been taken to address these challenges. The assessment includes developing a greenhouse gas emissions inventory, along with analyzing data for key indicators related to infrastructure, land use, water and air quality, waste, economics, natural resources, and public health. This assessment should be summarized in a sustainability assessment report, which will define the key issues and challenges to be addressed in the sustainability plan.



ICLEI MILESTONE ONE AWARD REQUIREMENTS

- Quick-action sustainability assessment, including a greenhouse gas emissions inventory for local government operations and the community.
- Submittal to ICLEI of all emissions inventory data (from software tool) and a report summarizing the results from the inventory and sustainability assessment.

Although its important to start thinking about indicators early, this list will need to evolve as the goals and specific measures for the plan are developed in Milestones Two and Three. For this reason, Milestone One should be undertaken in parallel with Milestone Two. Brainstorming the overall goals for the plan early in the process will help to guide the research and data-gathering activities in Milestone One.

For additional details on performing a sustainability assessment, refer to the Sustainability Assessment Checklist (in your toolkit folder).

TASKS:

1. Begin to define the scope of the plan.

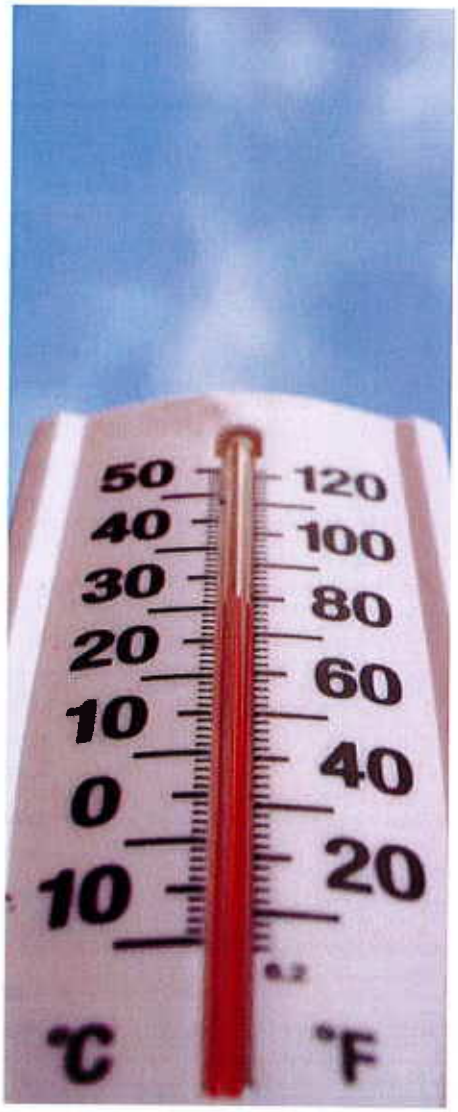
- Define preliminary scope and guiding principles for the plan. The guiding principles will be used to inform decision-making throughout the planning process, so it is useful to establish them upfront.
- Solicit feedback from the interdepartmental team and advisory board on the potential scope, goals, and guiding principles for the plan.

2. Inventory existing sustainability measures.

- Inventory local government sustainability and energy efficiency accomplishments to date, using the Sustainability Existing Initiatives Template.
- Highlight these successes in the sustainability assessment report.

3. Develop a greenhouse gas emissions inventory for the sustainability assessment.

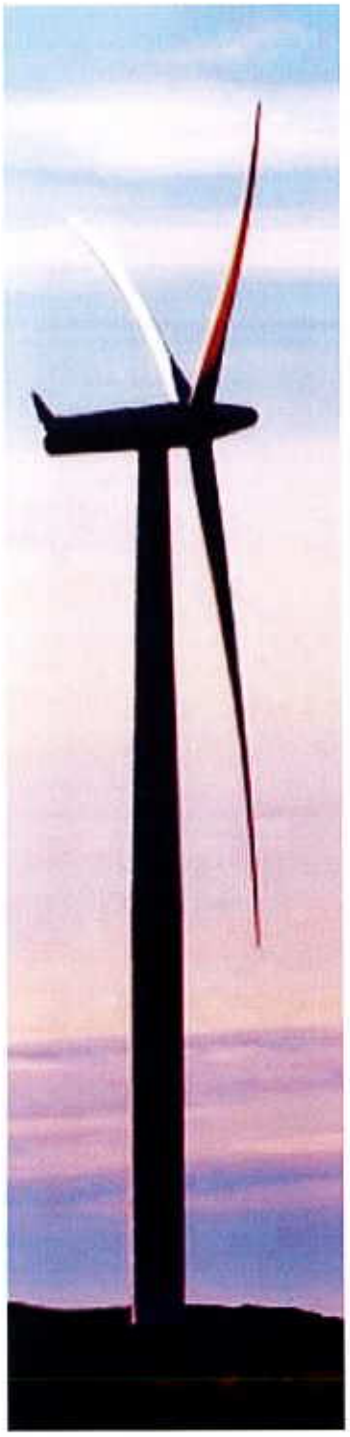
- Develop a greenhouse gas emissions inventory for government operations and the community as a whole using ICLEI's data collection and quantification tools and protocols. Establish a baseline year and project emissions out to your target year, assuming business-as-usual conditions.
- Start the greenhouse gas emissions inventory first, since this is a more labor intensive piece of the sustainability assessment and it is also fundamental baseline information needed for the planning process.



TIPS TO DEVELOP YOUR GHG INVENTORY

Get outside help on the inventory: Contact your regional ICLEI liaison for advice on how to complete the inventory. If your local government doesn't have the staff resources available to develop the greenhouse gas emissions inventory, consider hiring a graduate-level intern or seeking help from a local university. If you do receive outside assistance on your baseline inventory, make sure a local government staff member is trained on how to update the inventory.

Allow at least three months for the local government operations inventory and two months for the community-scale inventory, due to the amount of time typically required to gather all of the data.



4. Gather and analyze data for the sustainability assessment to define key issues.

- Define the sectors to be included in the sustainability assessment and identify indicators and data needs using the Sustainability Assessment Checklist.
- Indicators should be clear, relevant, compelling, and measurable, and should address the overall sustainability of the jurisdiction.
- Determine if a quick-action assessment or a comprehensive assessment is needed (Smaller local governments will typically want to perform a quick action assessment, and larger local governments should perform a comprehensive assessment).
- Present the sustainability assessment to the sustainability advisory board to ensure everyone is working with the same baseline information and to make sure the board members agree on the key challenges facing the jurisdiction.
- Task each department with research to identify the key challenges: Each department should assess the current state, trends, and business-as-usual scenarios within its domain, and research best practices for moving toward greater sustainability. Assess population change, infrastructure capacity, land use and transportation patterns, greenhouse gas emissions, housing availability and prices, pollution sources as outlined in the Sustainability Assessment Checklist.
- The greenhouse gas emissions baseline can be used as the overarching indicator for the sustainability assessment.
- When possible, use data from existing plans or reports to develop the sustainability assessment. Many departments may already have this data readily available as they may already be working on a number of the issues to be addressed in the plan. If the data isn't available, prioritize which information will be the most useful and perform a quick-action assessment. If you elect to do a quick-action assessment, keep in mind that you will need to gather data later in the process to establish metrics and baselines for the measures in the plan.
- Use your sustainability advisory board wisely, and task board members with research to contribute to the sustainability assessment.
- Cast a wide net when gathering data for the sustainability assessment, but balance time constraints and staff resources to focus the assessment on top priority information needed for the sustainability plan, such as the greenhouse gas inventory.

5. **Solicit ideas from the public and key stakeholders on the goals, guiding principles, and key challenges to be addressed in the plan.**

   - Hold small group meetings with stakeholder groups to get their perspective on the key issues affecting the sustainability of the jurisdiction. For instance, set up a group meeting with the directors of transportation advocacy organizations to hear their ideas and to begin the dialogue with a group of representatives to encourage them to speak together.

   - Solicit feedback from the public regarding the sustainability challenges using the website (or webpage) or a special e-mail address created for receiving feedback.

6. **Create a sustainability assessment report.**

   - Summarize the findings from the sustainability assessment in a report. This report can be incorporated into the sustainability plan or it can be a standalone document.

   - Explain the trends and significance of the baseline data and list all data sources.

   - Use a survey to ask residents to rate or rank their top sustainability concerns. This will ensure that the feedback is focused on issues that could be addressed in the plan and will make the input easier to analyze and summarize.

TOOLS AND TEMPLATES

- Sustainability Assessment Checklist
- ICLEI's quantification tools and protocols including ICLEI's Clean Air and Climate Protection (CACP) Software 2009 for developing a greenhouse gas Inventory and associated data collection sheets, and ICLEI's Local Government Operations Protocol for greenhouse gas inventories standards

BEST PRACTICE EXAMPLES

City of New York, NY: Gathering Data to Define the Issues

The City of New York began its planning process for what became PlaNYC, the City's sustainability plan, by gathering an extensive amount of data on the energy, infrastructure, land use, water, open space, housing stock, and air quality of the city. This assessment helped the City to identify the key challenges to be addressed in its sustainability plan.

The original impetus for this research and planning process was the projection that the City's population would grow by one million people over the next 25 years. To begin to understand the overall impacts of this growth, the Deputy Mayor of Economic Development asked each of the City's infrastructure and operational agencies to assess the impacts of this population growth on their operations. It became clear that besides growth, aging infrastructure, environmental risks and pollution would impact the city in the long-term. Therefore, in addition to this analysis of the impacts of population growth, the City also looked at sources of emissions and levels of pollution.

In addition, the City developed a greenhouse gas emissions inventory for the baseline year 2005. The Mayor's Office selected 2005 as the baseline year instead of a historical year such as 1990 or 2000 because of data availability issues and because they wanted to reflect recent population growth trends. They opted to use 2005 instead of 2006 as the baseline because 2006 was a much warmer year than normal and therefore the energy use was not representative of a typical year. The inventory was not finalized until just before PlaNYC was released, but the City was able to use the preliminary numbers to steer their planning process. For more information on City of New York's greenhouse gas emissions inventory, go to New York City Emissions Inventory.

Each of the City's agencies developed its respective piece of the assessment, which allowed them to identity the key challenges facing their operations. This analysis was presented to the sustainability advisory board and used as the foundation for the planning process. The issues identified in this assessment were summarized as the three main challenges: New York is getting bigger, the city's infrastructure is getting older, and the city's environment is at risk. To review the issues and challenges addressed in PlaNYC and the challenges videos, go to NYC Challenges.

City of Santa Monica, CA: Establishing Guiding Principles

The 2006 Santa Monica Sustainable City Plan is founded on 10 guiding principles that provide the basis from which effective and sustainable decisions can be made. These guiding principles were developed at the beginning of the planning process through a community visioning process. Santa Monica used these guiding principles as a foundation for defining the goal areas, indicators, and targets in its sustainability plan. These guiding principles define the overarching framework for sustainability in Santa Monica and shaped the specific recommendations in its plan.

Santa Monica's guiding principles are as follows:

1. The concept of sustainability guides City policy.
2. Protection, preservation, and restoration of the natural environment is a high priority.
3. Environmental quality, economic health, and social equity are mutually dependent.
4. All decisions have implications to the long-term sustainability of Santa Monica.
5. Community awareness, responsibility, participation, and education are key elements of a sustainable community.
6. Santa Monica recognizes its linkage with the regional, national, and global community.
7. Those sustainability issues most important to the community will be addressed first, and the most cost-effective programs and policies will be selected.
8. The city is committed to procurement decisions that minimize negative environmental and social impacts.
9. Cross-sector partnerships are necessary to achieve sustainable goals.
10. The precautionary principle provides a complimentary framework to help guide City decision-makers in the pursuit of sustainability.

Learn more about Santa Monica's Guiding Principles.

City of Minneapolis, MN: Defining Indicators First

Minneapolis began working on sustainability issues in 2003 and started by creating a set of sustainability principles to guide citywide decision making. These indicators were defined as part of the process of performing a sustainability assessment by first establishing a sustainability baseline and to measure progress from that baseline. In 2004, the City facilitated two public outreach meetings to solicit input from the public on what sustainability means to Minneapolis. Through this public outreach process, the citizens of Minneapolis developed a list of indicators and potential measures. The staff of the Office of Sustainability reviewed this list with the City's two environmental coordinating committees, the Citizens Environmental Advisory Committee and the City's interdepartmental team.

The city council passed a resolution in 2005 to adopt the indicators. The Office of Sustainability made the strategic decision to define the indicators first, and, once the indicators were finalized, establish the targets. Minneapolis chose to use indicators that encompass the three pillars of sustainability, but to keep the list relatively short, to only 25 indicators:

A HEALTHY LIFE	GREENPRINT	A VITAL COMMUNITY
• Healthy infants • Teen pregnancy • HIV and gonorrhea • Healthy weight • Asthma • Lead poisoning	• Climate change • Renewable energy • Air quality • Bikeways • Downtown transportation alternatives • Airport noise • Tree canopy • Combined sewer overflow • Permeable surfaces • Water quality	• Affordable housing • Homelessness • Block clubs • Brownfield sites • Homicides • Students in the arts • Graduation rate • Workers earning a livable wage

For more information on Minneapolis' sustainability program and sustainability indicators, view the Minneapolis Indicators.

Cupertino, CA: Inventory of Existing Actions

The City of Cupertino has highlighted all of the City's actions to create a more sustainable community on its website, in the Your Green City portal. The City has listed its actions related to collaboration, building and planning green, operating with efficiency, creating opportunities, spreading the word, and implementing actions around town. This list helps to lay the foundation for the City to develop a broader sustainability plan and to understand where there are potential gaps in programs and policies that need to be addressed in the sustainability plan. This list also conveys to the public that the City is committed to implementing green actions and already has a strong track record of taking action.

King County, WA: Communities Count Sustainability Assessment

In King County, WA, a private non-profit develops a report every three years, which serves as a sustainability assessment for both the county and local municipalities. The report provides data on 38 indicators grouped into the following categories:

- Basic needs & social well-being
- Positive development through life stages
- Safety and health
- Community strength
- Natural and built environment
- Arts and culture

The Communities Count Partnership is committed to improving community health and well-being through information advocacy—providing accurate and timely reports on conditions that matter to King County residents. Every three years, Communities Count reports on 38 social, economic, health, environmental and cultural indicators. The report is used by city and county governments, public agencies, foundations, human service funders, non-profit agencies, community-based organizations, and residents. For more information, visit its Communities Count website. www.communitiescount.org.

6.2 MILESTONE TWO: ESTABLISH SUSTAINABILITY GOALS

Milestone Purpose: To define the scope of the plan by developing a set of sustainability goals, including an emissions reduction target, that address the most pressing challenges identified in Milestone One.

Milestone Description: While analyzing the findings of the sustainability assessment, local governments must assess their primary sustainability challenges and develop a set of goals that can be used as the framework for the plan. The goals define the scope of the plan and communicate to the public the priorities and focus of the planning process. The goals can be developed in parallel to the sustainability assessment in Milestone One, to help guide the research and analysis process.

ICLEI MILESTONE TWO AWARD REQUIREMENTS

- Development of set of goals to address sustainability issues, including an emissions reduction target
- Written verification from a staff or elected official liaison that the local government has committed to the goals and the specific target

  Or

- Inclusion of goals and a reduction target in an approved emissions inventory report that is submitted to ICLEI

Additional Recommendations:
Public announcement of the sustainability goals including a website for public comment.

It is difficult to reflect the sustainability of a community in one goal or indicator, so ICLEI recommends developing a suite of inter-related goals to comprehensively define the vision for the community, including an overarching emissions reduction target. Developing the goals involves input from the sustainability coordinator, interdepartmental team, sustainability advisory board, key stakeholder groups, and the public.

TASKS:

1. Define clear, relevant, and measurable goals that address the key issues identified in the sustainability assessment, including an emissions reduction target.

- Brainstorm goals to address the key challenges identified in the sustainability assessment.
- Define the goals using simple language that will engage a wide audience.
- Solicit input from the sustainability advisory board on the goals and have the board members publicly endorse the goals, to demonstrate broad support early in the process.

- Review the goals by the sustainability advisory board and incorporate their feedback.
- Develop two emissions reductions targets: an emissions reduction target for the community as a whole, and one for government operations only. These targets can be the same, but often local governments elect to set a more aggressive target for government operations to position the government as a leader.
- Set an emissions reduction target that is aggressive but achievable.
- For more information on setting an emissions reduction target, refer to ICLEI's Target Setting Guide (coming soon).

2. Test the achievability of your goals by brainstorming possible strategies to meet them.

- Make sure goals are achievable by performing a high-level analysis of potential strategies to meet them, using the Matrix of Sustainability Strategies.
- Refer to the Sustainability and Climate Action Plan Examples for example goals and strategies and to learn about the strategies employed by other local governments.
- If you find your goals are out of reach or off base, double back to refine and reframe them.
- Estimate the potential of your various strategies to achieve your emissions reduction target.

3. Solicit ideas from the public for sustainability goals.

- Hold meetings with small groups of stakeholders to hear their ideas for the goals within the plan.
- Facilitate a public visioning session to brainstorm goals and get the public thinking about what sustainability means to them.
- Use the website to solicit ideas from the public on the sustainability goals. Summarize and post ideas from the public on the website.

4. Announce your goals to the public.

- Have the mayor or chief elected official announce the goals and define the scope of the sustainability plan at a kick-off public event or press conference.
- Develop a public education campaign around the challenges and goals in conjunction with the announcement, to maximize the public awareness and support for the planning process.
- Post the goals on the sustainability plan website and develop a media plan around the release of the goals, to maximize public awareness and support for the planning process.

- Provide context for the goals. Present the findings from the sustainability assessment with the goals to provide background information and to communicate to the public the need for the plan. This will help to ensure that the public has the same information as the team developing the plan and will be used as a common starting point for the outreach process.

TOOLS/TEMPLATES

- ICLEI's Target Setting Guide (coming soon)
- Matrix of Sustainability Strategies for brainstorming potential strategies for achieving goals
- Sustainability and Climate Action Plan Examples
- ICLEI's Climate and Air Pollution Planning Assistant (CAPPA) decision support tool for brainstorming potential greenhouse gas emissions reduction strategies

BEST PRACTICE EXAMPLES

City of New York, NY: Developing Measurable and Inspiring Goals

To develop the first draft of the goals for PlaNYC, New York's Mayor's Office of Long-Term Planning and Sustainability gathered ideas from the interagency team and from the sustainability advisory board. The Mayor's Office, the interagency team, and the advisory board all had similar ideas for the goals and key themes for the plan. However, the task of framing each goal in a way that would resonate with the public—and not be too broad in scope—was more challenging. For example, the Department of Environmental Protection came up with the goal to improve the state classification of the City's water quality. The City's waterways have historically been polluted due to industrial uses and overflows from wastewater treatment facilities. The team agreed that although this goal is clear and measurable, it might not resonate with the public. Therefore, they chose to reframe the goal as "open 90 percent of our waterways for recreation by reducing water pollution and preserving our natural areas." Articulated this way, the goal is measurable, has a clearer benefit to the general public, and supports the City's long-term plans to transition its waterfront from industrial to recreational uses.

Ultimately, City of New York developed 10 goals. Mayor Bloomberg publicly announced them at a large-scale press event that was followed by months of public outreach to develop and analyze potential initiatives to achieve these goals. To reach a wide audience, the City launched a website about the challenges and goals, and created a pamphlet that was inserted in daily newspapers. For more information on City of New York's challenges and goals, go to PlaNYC Challenges and Goals.

City of Franklin, TN: Public Visioning Session

The City of Franklin, TN, has a vision of being one of the top 25 sustainable cities in the country. It launched a planning process in September 2008 that included a public visioning process, called the Sustainability Navigation Session. The City used the visioning process to help define its top sustainability needs and to brainstorm goals and measures for the sustainability plan. The visioning workshop, which was promoted on the City's website, took place over two days and involved more than 200 participants. Participants were asked to list their sustainability concerns, which the City and its consultants summarized and used those to identify the "Top 10" sustainability goals. This exercise helped to identify high-priority issues, such as a citywide recycling program, green building incentives and policies, water conservation, and sustainability education curriculum in schools.

Newark, NJ: Imagining Newark's Green Future

The idea behind Newark's Green Future Summit stems from a commitment that Newark, the Apollo Alliance, the Washington-based Center For American Progress, Christensen Global Strategies, and several more organizations made at the Clinton Global Initiative in September 2007. The idea was two-fold. First, to bring Newark's diverse talent and experience together with leaders from other communities to develop a roadmap for sustainable development. And second, to support the city in developing green urban initiatives—integrating green buildings into energy efficient neighborhoods, developing new parks, fostering business development in clean energy that produces green-collar jobs, greening the Newark port—that create jobs, increase community welfare, and expand economic opportunity.

Newark's Green Future Summit was a two-day event attended by local and national experts, which facilitated a process for the people of Newark to define what sustainability means to them, and define the overarching goals to make Newark a more sustainable place to live and work. A summary of the summit process and results can be found in the report, Imagining Newark's Green Future. The City of Newark intends to use this report as a starting point for the development of a local sustainability plan.

6.3 MILESTONE THREE: DEVELOP A LOCAL SUSTAINABILITY PLAN

Milestone Purpose: To identify and devise a plan of action that is supported by the public and consists of policies and strategies that will allow the local government to achieve tangible improvements in local sustainability and reduce greenhouse gas emissions.

Milestone Description: Milestone Three involves building on the research and analysis in Milestones One and Two, and fleshing out the details of each measure in greater detail. The major tasks of Milestone Three include analyzing potential strategies and measures, quantifying the emissions reduction potential of each measure, developing implementation plans, receiving and incorporating public input, and writing the sustainability plan.

ICLEI MILESTONE THREE AWARD REQUIREMENTS

- The completion and formal approval/public release of a Sustainability Plan highlighting existing and proposed reductions for municipal and/or community emissions and measures to improve the overall sustainability of the community
- Submittal to ICLEI of an electronic copy of the plan

Additional Recommendations:
Implementation of a comprehensive public outreach process; incorporation of public feedback into the sustainability plan.

The outreach process should be in full swing in Milestone Three, and local governments should utilize the internet, town hall–style meetings, roundtable discussions, and focus groups to solicit input for the measures being considered for the plan.

TASKS:

1. Develop and prioritize measures.

- For each strategy identified in Milestone Two, develop a list of potential measures for detailed analysis. Use the Sustainability Strategies Matrix, ICLEI's Climate and Air Pollution Planning Assistant (CAPPA) decision support tool, as well as feedback from the public outreach meetings, sustainability advisory board, and interdepartmental team.
- Analyze potential measures and describe how the selected measures will contribute to the various goals, using the Measure Analysis Template.

- Analyze the costs and benefits of all potential measures.
- Prioritize and select measures include a mix of quick-wins and longer-term bold measures.
- Define relevant indicators and data sources for each measure and gather baseline data, to ensure that the impact of each measure is measurable.
- Estimate the emissions reduction potential of each measure.

TIPS TO HELP CHOOSE YOUR MEASURES

Propose a "plan to plan," if additional analysis or a separate planning process is needed. For example, you can create a task force to study an issue in more detail or to develop a pilot project to test a new strategy.

Consider including one or two measures that can dramatically impact energy use in the long-term, such as expanding public transit service. Major measures addressing buildings or transport can not only cut greenhouse gas emissions dramatically, but also demonstrate your local government's commitment to addressing the challenges.

2. Develop implementation plans for each measure.

- Define the implementation timeline, responsible department/organization, and key milestones for each measure. Develop short-term (if possible) and long-term milestones for each measure.
- Identify available funding and funding gaps for each measure.
- Designate an implementation coordinator in each local government department, to ensure there is a primary point of contact responsible for the implementation.

WHAT TO INCLUDE IN THE IMPLEMENTATION PLAN FOR EACH MEASURE

- ☐ **Responsibility:** Clearly state the department, agency, or organization responsible for implementing each action item in the sustainability plan. Nongovernmental parties or stakeholders involved with implementing these actions should also be identified.
- ☐ **Timeline:** For each action item, set a target year by which the item should be launched or completed. The implementation plan may also require setting interim goals and target years for each item (e.g., the end of a political term).
- ☐ **Funding:** Explain how each item will be funded. The implementation plan should detail how each item will fit in the budget, and include any sources of external funding available.
- ☐ **Baseline data:** Define relevant sustainability indicators for each measure, so you can monitor progress.

3. Prepare for the public outreach process.

- Update the draft outreach plan created in the pre-planning phase with the following information:
  - Stakeholders to involve in the outreach process.
  - Schedule and location of the outreach meetings in a variety of locations throughout the jurisdiction.
- Concurrent with the public meetings, the sustainability coordinator and staff should continue to meet with advocacy organizations and stakeholders to receive feedback and test ideas. These meetings can be conducted as one-on-one meetings or with small groups.
- Include the interdepartmental team and departmental directors in the outreach meetings, so they can hear direct feedback from the public and can incorporate public opinion in to their analysis of potential strategies. The team can also address questions raised by the public when a proposed strategy is not viable.
- Develop an attractive and easy-to-understand presentation for the outreach process to visually communicate to the public the challenges and goals. Then use the second half of the meeting to get feedback.
- Tailor the outreach presentations to the audience; highlight the benefits of the plan for different constituency groups and/or neighborhoods. When people understand how the plan affects them directly, they will take a greater interest.
- If regularly scheduled public meetings exist, then consider using these meetings as a venue for public outreach.
- For larger jurisdictions, consider holding meetings in a variety of locations to make the meetings convenient for residents.
- The number and approach to public outreach can vary vastly based on the size of the jurisdiction. For smaller communities, only a few outreach meetings might be necessary and they could be combined with other planning meetings. However for larger communities, a number of meetings along with a public education campaign might be appropriate.

4. Perform outreach.

- Ask stakeholder groups and the public about how to achieve the goals developed in Milestone Two. Solicit ideas on how to finance proposals to encourage the public to think about costs and benefits of various strategies.
- Present measures being considered for the plan to test public opinion.
- Utilize town hall–style meetings, smaller roundtable meetings, expert panels, and your website to gather ideas from the public.
- Summarize the feedback from the outreach meetings and distribute it to the team, to ensure the team is abreast of public opinion and new ideas.
- Post summarized public feedback on the website.
- Refer to ICLEI's Outreach and Communications Guide for ideas on how to communicate with the public.
- Reach as many people as possible: A variety of outreach approaches are necessary to reach a wide audience and to provide the public with different opportunities for participation, including town hall meetings, online and written feedback, forums on specific topics, and more focused meetings with key stakeholder groups.

5. Create an outline for the plan.

- Develop an outline for the plan and assign sections to interdepartmental team members, using the Example Outline (in your toolkit folder).

6. Write the plan.

- Develop a narrative to help the public understand the overall rationale for the plan, and provide explanations and rationale for each measure.
- Designate a master editor who is responsible for compiling information and writing the plan in one voice. It is useful for this person to understand the planning process and the history of the various measures through professional knowledge or by attending meetings with the sustainability advisory board and other stakeholders.
- Write and produce the plan in a format that is clear, compelling, and easy for the public to understand.

TIPS TO WRITE A COMPELLING PLAN

Tell a story: The document's narrative should explain the issues and challenges to ensure the reader understands the background of the plan and the need for action.

Make the plan look professional: Publish the plan in a visually appealing and reader-friendly format, to help market the plan and communicate the ideas. Using an attractive and easy-to-use format helps to generate interest in the plan and communicate to the public the local government's commitment to the plan.

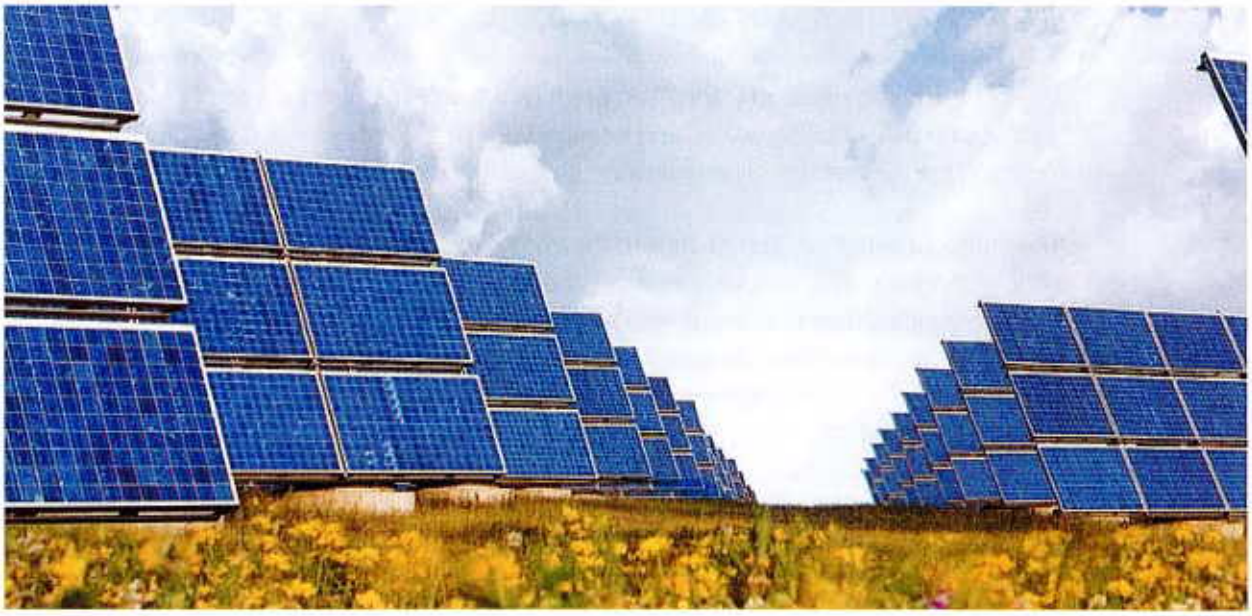
Demonstrate to the public that their ideas have been heard: Quoting the public's feedback is a powerful tool. However, publishing people's written ideas may require written consent, even if their names are not published. When designing an online or paper feedback form, this should be taken into account.

7. Release a draft plan for public comment (if appropriate).

- Determine if it is necessary to release a draft of the plan for public comment. This will depend on local laws, the breadth of the outreach process, and historic precedence in the community for engaging the public.

8. Finalize and release the plan.

- Have the chief elected official announce the plan and publicly release it.
- Formally adopt or approve the plan.

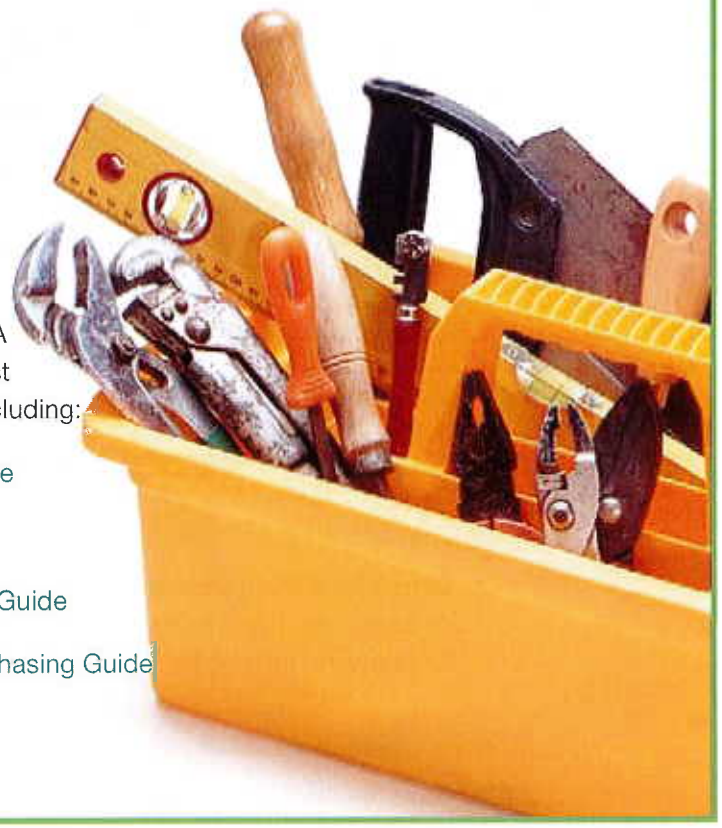


TOOLS/TEMPLATES

- Measure Analysis Template (in your toolkit folder)
- ICLEI's Climate and Air Pollution Planning Assistant (CAPPA) decision support tool for assessing the emissions reductions for various measures
- Sustainability Strategies Matrix
- Sample Outline
- Outreach and Communications Guide
- Playbook for Green Buildings + Neighborhoods website

Visit the Action Center on the ICLEI USA website for a variety of guidebooks, best practices, and implementation tools, including:

- ICLEI's Solid Waste and Recycling Guide
- ICLEI's Revolving Enery Fund Guide
- ICLEI's Outreach and Communications Guide
- ICLEI's Environmentally Preferable Purchasing Guide
- Model Ordinances



BEST PRACTICE EXAMPLES

City of New York City: Summarizing the Plan in the Implementation and Goals Matrices

Mayor Bloomberg released PlaNYC on Earth Day 2007. The plan includes 127 initiatives in the areas of air quality, land use, housing, water, and transportation aimed at achieving the City's 10 sustainability goals, including the overarching climate change goal of reducing greenhouse gas emissions 30 percent by 2030.

The matrix of initiatives and goals and the implementation plan matrix are the two most important sections of the plan, even though they are appendices. These matrices are the actual day-to-day tools used by the Mayor's Office to manage and coordinate the implementation of the plan. The matrix of initiatives and goals illustrates how one initiative can help to achieve multiple goals. The implementation plan matrix spells out the implementation timeframe, the city (or state) agency in charge of the implementation, and the allocated and needed funding for the initiative.

Download NYC's Matrix of Initiatives and Goals here, or view the City's entire Implementation Plan Matrix.

City of Baltimore, MD: Multi-Pronged Approach to Public Outreach

Baltimore's Department of City Planning was charged with developing its sustainability plan, known as TransForm Baltimore. Baltimore has followed a comprehensive approach to public outreach by recognizing that the public does not only want to provide comments on the draft plan, but they want to be involved in the plan development from the beginning. As a result, the City undertook a multi-pronged outreach strategy to develop the plan, which included working groups, community conversations, a youth strategy, and a sustainability forum, as summarized in the draft plan's public engagement chapter.

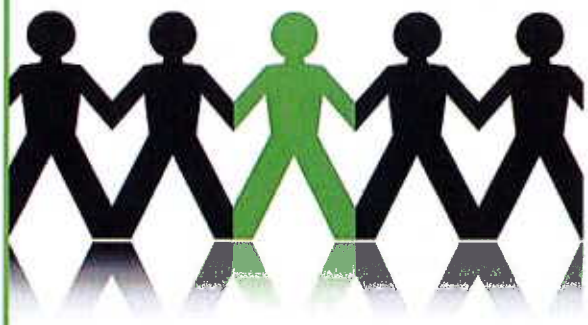
The draft sustainability plan was released for public comment on December 31, 2008, and the public had six months to provide feedback via Baltimore's online public consultation portal and through public meetings. The public consultation portal enabled residents to review the plan, post comments, and review other comments. Reviewers were asked to categorize their comments as support, support with conditions, observation, recommendation, or objection. This tool allowed the City to gather all feedback in a central repository and provided the public with an easy-to-use forum for commenting on specific sections of the plan.

6.4 MILESTONE FOUR: IMPLEMENT POLICIES AND MEASURES

Milestone Purpose: To implement the measures in the sustainability plan to improve the overall quality of life in the community.

Milestone Description: After the plan is released and adopted, it is time to start implementing it. Implementation can take a variety of different forms, such as passing new regulations, forming taskforces, initiating pilot projects, educating the public, changing purchasing patterns, or developing plans for specific issues identified in the sustainability plan.

CAMPAIGN FOR NEW YORK'S FUTURE MISSION STATEMENT



The Campaign for New York's Future is a coalition of civic, business, environmental, labor, community and public health organizations that support the goals and strategic direction of PlaNYC. Our goal is to make every neighborhood in NYC a great place to live and work, as well as make a significant contribution to fighting climate change. The coalition aims to encourage public debate—as well as fair and effective action—now and in the years to come. We recognize the need to both seize the opportunity for immediate action and to insure that this long-term plan evolves with continued dialogue and changing conditions.

The sustainability coordinator plays an essential role in coordinating the implementation process and tracking progress. However, it is up to each department to take ownership of the measures assigned to them. Each department should assign an implementation coordinator who is responsible for managing and coordinating the implementation and contributing to the annual progress report. The implementation coordinators should meet regularly with the sustainability coordinator to keep the sustainability coordinator updated and to troubleshoot issues that might arise. In addition, the implementation of many measures will involve coordination of multiple agencies, so the sustainability coordinator and the departmental implementation coordinators will need to work closely together.

TASKS:

1. Implement the measures in the plan and track implementation status.

- Make sure all measures have a designated implementation coordinator. Hold regular meetings with the implementation coordinators to keep track of the progress, help resolve issues, and coordinate interdepartmental measures.
- Use a master spreadsheet or database to keep track of the key milestones, deliverables, and achievements for each measure.
- Make sure that all measures have indicators, data sources, and baseline data for tracking progress.
- Identify implementation coordinators from each department who are familiar with the measures and have existing responsibilities that overlap with the measures in the plan.
- Have the chief elected official communicate to the departments and implementation coordinators the high priority of implementing the plan and the important role each implementation coordinator will play.

2. **Institutionalize the planning process.**

- Codify the process and timeframe for updating the plan and define a process for monitoring the implementation progress through a resolution or local law.

3. **Define the future role of the sustainability advisory board.**

- Depending on how the sustainability advisory board was structured when it was established, it might be necessary to redefine the role of the board following the release of the plan. Some local governments choose to "sun-shine" their advisory boards and work with an existing entity, such as a citizens advisory panel, to monitor the implementation of the plan. Others choose to leave the board intact, but change its focus towards facilitating or monitoring the implementation of the plan.

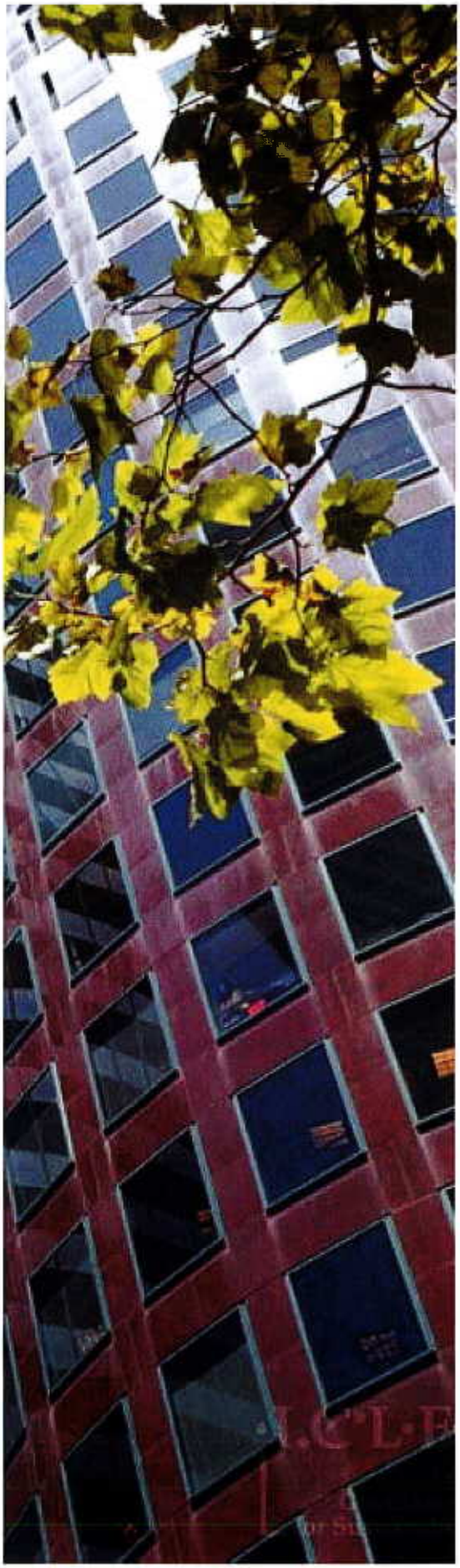
4. **Coordinate with a coalition of advocacy groups.**

- Whether a coalition of stakeholders forms organically, through the coordination of the sustainability advisory board (or even the local government itself), it is useful to form an alliance of stakeholder groups who can support the implementation of the plan at the community level.
- The sustainability advisory board should plan an active role in forming this coalition and defining the vision and mission of the coalition, if such an organization doesn't already exist.
- The coalition should have an overarching goal to support the implementation of the plan and to make sure the plan remains relevant through future political administrations.
- Work with the coalition to develop a public education and outreach campaign, to continue to educate the public about sustainability and climate change issues, or to focus outreach on a specific measure to build public support.

TOOLS/TEMPLATES

Visit the Action Center on the ICLEI USA website for a variety of guidebooks, best practices, and implementation tools, including:

- ICLEI's Revolving Energy Fund Guide
- ICLEI's Solid Waste and Recycling Guide
- ICLEI's Outreach and Communications Guide
- Green Playbook + Neighborhoods website
- Environmentally Preferable Purchasing Guide
- Model Ordinances



BEST PRACTICE EXAMPLES

The following examples provide some ideas about how to coordinate and manage the release of the plan. For examples of specific measures to be included in a sustainability plan, refer to ICLEI's Action Center. For additional information about the measures included in New York City's sustainability plan, refer to the New York City Case Studies in this toolkit.

City of New York, NY: Coordinating the Release of the Plan

The coordination of the messaging and rollout of PlaNYC was critical to the plan's broad public support. Throughout the planning process, the Mayor's Office was strategic with what information was publicly presented about their plan, to ensure nothing was misreported prior to the mayor's announcement of the plan on Earth Day 2007.

In preparation for the release of PlaNYC, the advocacy and community-based organizations involved in the sustainability advisory board and the outreach process formed a coalition called the Campaign for New York's Future to support the release and implementation of the plan. The coalition provided institutional support for the plan and received funding from 15 New York City-based foundations interested in environmental and economic development issues. The Mayor's Office of Sustainability was instrumental in organizing and forming the coalition and helped to define the mission of the coalition, raise money, and hire a director to manage the coalition's activities. The number-one priority for both the Mayor's Office and the founding members of the coalition was to support the implementation of the plan and to ensure the longevity of the plan beyond the Bloomberg administration.

A day before the release of the plan, the City organized an embargoed technical briefing for the press on the details of the plan. The City announced the Million Trees initiative that day to help build the excitement for the actual release of the plan, but asked the press not to release anything until the day of the plan announcement. By holding a technical briefing for the press, the Mayor's Office was able to explain the details of the plan and make sure that the press understood the initiatives in the plan, since the Mayor's announcement did not touch on every specific initiative in the plan.

On the day the mayor released the plan, the Mayor's Office held a technical briefing for the sustainability advisory board and the Campaign for New York's Future. Similar to the press briefing, the Mayor's Office presented the details of the plan to make sure the advocates and advisory board were well versed in the specifics of the plan. By preparing the advocates prior to the release of the plan, the Mayor's Office was able to use surrogates to praise the plan immediately following the mayor's announcement, which only helped to build on the positive press received by the city. To add to the public support for the plan, the coalition released a press release endorsing the plan and the coalition members gathered at City Hall for a press conference to demonstrate their support. Nearly 75 local organizations from around the city were involved and they demonstrated to the public, the media, and most importantly to elected officials the broad support for the plan.

City of Minneapolis, MN: Designating Coordinators for Each Indicator

After releasing its sustainability plan, which included 25 sustainability indicators, Minneapolis assigned a coordinator to manage the measures associated with each indicator. Instead of assigning liaisons from each department to manage the activities within their department, the City assigned a staff representative to coordinate all of the activities associated with each indicator. These indicator coordinators were selected from the various City departments and were already working on many of the issues associated with each indicator. This approach to managing the implementation allowed the City to work with its existing staff resources and to break down boundaries between the departments.

6.5 MILESTONE FIVE: EVALUATE PROGRESS AND REPORT RESULTS

Milestone Purpose: To be transparent and accountable to the public by tracking and reporting on implementation progress and using a set of indicators to track overall improvements in local sustainability.

Milestone Description: Once implementation begins, it is time to create processes to track progress toward the sustainability plan's goals. This can be done by reporting on the set of sustainability indicators developed in Milestone One, publishing an annual progress report, and updating the greenhouse gas emissions inventory.

The annual progress report is the primary mechanism for a local government to demonstrate accountability and transparency to the public and key stakeholders. This report should summarize the actions taken, next steps, and key milestones of all of the plan's measures, and highlight how the actions taken are helping to achieve the sustainability goals. In addition, it should explain any implementation barriers or strategic changes to the implementation approach.

ICLEI MILESTONE FIVE AWARD REQUIREMENTS

- Annual progress reports submitted to ICLEI on measures outlined in the sustainability plan
- The completion of an updated greenhouse gas emissions inventory within three years of the baseline year
- Submittal to ICLEI of all inventory data (from software tool)
- Submittal to ICLEI of a report summarizing the inventory results

Sustainability indicators should be used to monitor changes to the overall sustainability of the jurisdiction and serve as a supplemental mechanism for tracking implementation progress. The updated greenhouse gas emissions inventory allows the local government to track its overall progress toward achieving the emissions reductions target. Completing Milestone Five closes the loop on the first round of the planning process, and enables a local government to update the sustainability plan and to restart the Five Milestone process.

TASKS:

1. Review sustainability indicators and gather missing baseline data.

- Review the sustainability indicators developed in Milestone One, for the sustainability assessment, and determine if any additional or different indicators are necessary.
- For any new indicators, gather relevant baseline data.
- Indicators should be clear, relevant, compelling, and measurable, and should address the overall sustainability of the jurisdiction.
- Develop a transparent system for reporting indicator data to the public.

2. Develop an annual progress report to update the public.

- Develop a tracking system for monitoring the progress of the measures in the plan.
- Develop an annual progress report.
- Release the progress report to the public and have the mayor or chief elected official announce the progress made to date.

WHAT TO INCLUDE IN YOUR ANNUAL PROGRESS REPORT

- ☐ **Responsible parties:** Clearly state the department, agency, or individuals responsible for implementing each measure in the sustainability plan, even if this is already included in the plan.
- ☐ **Status of measures:** Summarize what actions have been taken to implement each measure. Categorize each measure with terminology such as "completed," "launched," or "not started."
- ☐ **Quantified progress:** Calculate the progress on each measure's target, such as greenhouse gas emissions reduced or affordable housing units built.
- ☐ **Achievements and challenges:** Highlight the successes your municipality achieved, but also discuss any barriers encountered during the reporting period. Learning from both the successes and setbacks will help when updating your implementation plan for the next reporting period.

Next steps: Explain for each measure what must occur during the next reporting period to meet the goals and target years set by the implementation plan.

3. Update the greenhouse gas emissions inventory.

- Update the local government operations and community greenhouse gas inventories at least once every five years, preferably every one to three years.
- Release a public report on the updated greenhouse gas inventory. Highlight successes and key measures that have been implemented to reduce emissions.
- Quantify the impacts of external factors, such as weather and population growth, along with changes in energy consumption and energy production efficiency.

4. Use the website and e-mail blasts to update the public.

- Keep the public and key stakeholders updated on major achievements by routinely updating the website and tracking the progress of measures online.
- Create an e-mail list of interested parties from the outreach process and send them regular newsletters or press releases for major achievements.

5. Update the sustainability advisory board and other key stakeholders.

- Continue to meet with the sustainability advisory board, and between meetings, keep them updated with regular communications, such as a newsletter. As representatives of their respective constituency groups and the public at large, the sustainability advisory board should hold the local government accountable to implementing the plan.
- Meet with the key stakeholder groups that were consulted during the planning process to keep them informed of the implementation progress.

TOOLS/TEMPLATES
Sustainability Assessment Guidelines and Checklist

BEST PRACTICE EXAMPLES

City of New York, NY: Annual Progress Report

The monitoring and evaluation of PlaNYC progress follows Mayor Bloomberg's adopted motto, "If you can't measure it you can't manage it." Mayor Bloomberg has been a pioneer in terms of tracking progress on campaign promises and using performance indicators to monitor City operations. In keeping with this approach, the City Council passed Local Law 17 in 2008, which amended the city charter and administrative code to add the Mayor's Office of Long-Term Planning and Sustainability as a permanent mayoral office. This local law charges the Mayor's Office with implementing PlaNYC, identifying and reporting on a set of sustainability indicators, and publishing an annual progress report. The City also passed Local Law 22 in 2008, which enacts the emissions reductions targets in PlaNYC to reduce emissions from City government by 30 percent by 2017 and for the city as a whole by 30 percent by 2030. It also requires the Mayor's Office to update the greenhouse gas emissions inventory annually.

One year after Mayor Bloomberg released PlaNYC in April 2007, the City launched 93 percent of the 127 initiatives in the plan. Two years after the release of the plan, all of the initiatives have been launched, 35 have been completed, and 50 are on time.

The City uses an internal spreadsheet to track the implementation progress of each initiative and meets regularly with each of the implementation coordinators in the various City agencies. The Mayor's Office first published a brief six-month progress report in October 2007, and now releases a comprehensive annual progress report on Earth Day, the anniversary of the release of PlaNYC.

The City of New York also released a set of sustainability indicators on Earth Day 2009, which provides an additional mechanism for tracking progress.

To learn more, view the City's 2008 PlaNYC Annual Progress Report and the 2009 PlaNYC Annual Progress Report. For a summary of the status of the 127 initiatives after the first year, go to One Year Status Report Scorecard. The City's updated greenhouse gas inventory can be found at Annual Greenhouse Emissions Inventory 2009.

City of Albuquerque, NM: Online Green Reporting Tool

The City of Albuquerque uses a number of visually pleasing and easy-to-use reporting tools to demonstrate to the public its progress on green goals. The City's sustainability homepage displays an interactive map that illustrates the City's accomplishments and provides a fun tool to learn about sustainability. The City also provides a visual reporting tool called AlbuquerqueGreen Reporting, which illustrates the main components of the sustainability plan, and provides updates on the City's progress for both its government and community measures. The reporting tool lists a baseline and a target for each of the actions in the plan as well.

City of Santa Monica, CA: Indicators

Santa Monica's entire sustainability effort is driven by the use of indicators and targets for each of the eight goals in its sustainability plan. The City uses system-level indicators and program-level indicators to monitor overall citywide sustainability and to track implementation progress. System-level indicators are used for tracking citywide sustainability trends; they indicate the state, condition, or pressures on a community-wide basis for

each respective goal area. Program-level indicators show the performance or effectiveness of specific programs, policies, or actions taken by the City government or other stakeholders in the community. Santa Monica has set specific targets for many of the indicators, but was unable to establish baselines and targets for some indicators in which data was not available at the time. For these indicators, the City reports on the trends.

As an example, for the resource conservation goal area, the City rates its overall progress with a letter grade and also rates its effort. So in 2008, Santa Monica received a C+ for resource conservation, however the City gave itself an A- for effort. The rationale behind these grades is based on the scores for each of the categories within resource conservation, such as solid waste, water use, and energy use. For each of these categories, the City has an indicator, such as "citywide water use, percent local vs. imported & potable vs. non-potable." The City reports on the status and trends for each indicator and provides a detailed description of actions taken, performance summary, and recommendations for areas for improvement.

City of Seattle, WA: Reporting Annual Progress Towards Achieving Goals

The City of Seattle publishes an annual progress report summarizing its climate action plan achievements along with an implementation matrix tracking the progress on each measure in the plan. The report highlights the City's key accomplishments and includes numbers and figures, to demonstrate the progress, such as creating 50 miles of new bike lanes or distributing 1.4 million CFLs. The report also shows trends for some of the City's sustainability indicators, such as bike-to-work-day participation and transit ridership. For more information, view Seattle's progress report. In addition to the annual report, the City releases an implementation matrix that provides a status update on the implementation of each measure in the climate action plan.

PART III: PLANNING RESOURCES

7. ICLEI SUSTAINABILITY MILESTONE AWARD GUIDE

Milestone One: Conduct a Sustainability Assessment

- ☐ Completion of a comprehensive GHG emissions inventory including both community and municipal operations
- ☐ Analysis and baseline assessment of sustainability indicators
- ☐ Submittal to ICLEI of all data (from software tool)
- ☐ Submittal to ICLEI of a report summarizing the results from the inventory and sustainability indicator assessment

Milestone Two: Establish Sustainability Goals

- ☐ Development of set of goals to address sustainability issues, including an emissions reduction target
- ☐ Written verification from a staff or elected official liaison that the local government has committed to the goals and the specific target

  Or
- ☐ Inclusion of goals and a reduction target in an emissions inventory report submitted to ICLEI

Milestone Three: Develop a Local Sustainability Plan

- ☐ The completion and formal approval of a sustainability plan highlighting existing and proposed reductions for municipal and/or community emissions and measures to improve the overall sustainability of the community
- ☐ Submittal to ICLEI of an electronic copy of the plan

Milestone Four: Implement Policies and Measures

- ☐ Quantification of a minimum of 50% of the measures outlined in the sustainability plan
- ☐ All quantification data and methodology must be verifiable by ICLEI

Milestone Five: Evaluate Progress and Report Results

- ☐ Annual progress reports submitted to ICLEI on measures outlined in the sustainability plan
- ☐ The completion of an updated inventory within five years of the baseline year
- ☐ Submittal to ICLEI of all data (from software tool)
- ☐ Submittal to ICLEI of a report summarizing the results

8. LIST OF TOOLS, TEMPLATES, CHECKLISTS, AND BEST PRACTICES

You should have received the Sustainability Planning Toolkit in a folder that contained this main document (pdf) and a subfolder with the following Word documents and Excel files, which are essential to the process of sustainability planning, and referenced throughout the toolkit.

Sustainability Plan Development Example Timeline

View a proposed timeline to get a sense of how long it takes to complete the Five Milestones.

Five Milestones for Sustainability Checklist

Follow this checklist of tasks as you work through each of the Five Milestones for Sustainability.

Master List of Useful Guidebooks and Tools

links to a wealth of online resources, from EPA, local goverments, NGOs, and more.

Measure Analysis Template

Analyze the feasibility (costs, benefits, challenges, etc.) of each measure in your plan.

Outreach Planning Template

Document your outreach planning process, including your approach, timeline, means of incorporating public input, public education campaign strategy, and more.

Sustainability Assessment Guidelines and Checklist

This checklist provies the basic data that a local government should take into consideration when performing a sustainability assessment.

Sustainability Strategies Matrix

Examples of strategies, large and small, that local governments have included in their plans.

Inventory of Existing Sustainability Initiatives Template

List your local government's existing sustainability initiatives in this Excel document.

Sustainability Plan Template

Consider using this template to structure your written sustainability plan.

Sustainability Team Best Practices

This mini-guide supplements the main toolkit with even more information on how to create your sustainability team and assign responsibilities.

Sustainability Team Formation Checklist

Follow this short checklist as you create your interdepartmental team and your advisory board.

List of U.S. Sustainability and Climate Action Plans

To glean ideas for your sustainability or climate action plan, view this document to find links to plans from local governments around the country.

Sample Sustainability Coordinator Job Descriptions

Use these job descriptions to help with your hiring process.

CNT energy planning

Municipal Energy Profile Project

The Municipal Energy Profile Project (MEPP) provides all municipalities in the seven-county Chicago metropolitan region with annual citywide energy consumption, vehicle miles traveled and emissions data. Each profile is designed to give the municipality information about how energy is consumed by residents and businesses in the community and to help the municipality prioritize strategies for energy efficiency and conservation.

How the Profiles Help Municipalities

At the local level, having this aggregate baseline data for the entire municipality is important because it makes it possible to accurately benchmark energy use, thereby enabling better estimates of the potential for energy savings. Municipalities can use the energy use profile to develop programs that effectively reduce energy use and to measure the impact of the programs. Furthermore, the emissions profile provides a starting point for the development of a municipal sustainability or climate action plan. Your MEPP report is especially important given federal and state EECBG dollars and other funding opportunities available to local municipalities.

Importance to the Region

At the regional level, this project is important because it provides every municipality with unprecedented data and information that has not yet been made available in aggregate form. The Chicago metropolitan region is one of just a few nationwide to have calculated detailed local analyses at a regional scale. This aggressively positions northern Illinois to effectively and successfully continue working towards becoming a more sustainable region.

Funding and Project Partners

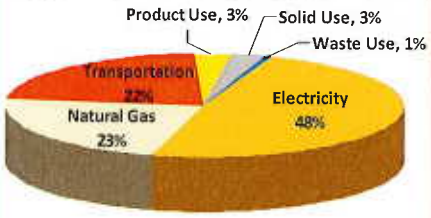
This project is funded by the Illinois Clean Energy Community Foundation. Data is provided through the cooperation of ComEd, Nicor, Peoples Gas, North Shore Gas and the Illinois Department of Transportation.

What's Inside a Municipal Energy Profile

- Aggregate annual electricity consumption from account-level data analyzed by sector
- Aggregate annual natural gas consumption from account-level data analyzed by sector
- Annual transportation data by vehicle miles traveled
- Annual emissions profile by sector

Sample Municipality

Greenhouse Gas Emissions by Sector



For more information

Lindy Wordlaw, AICP
Senior Planner, CNT Energy
(773) 269-4012
lindy@cntenergy.org

Kimberly O. Loewen
Planner, CNT Energy
(773) 269-4089
kloewen@cntenergy.org

www.cnt.org
www.cntenergy.org

Lake Bluff Energy and Emissions Profile

This profile provides energy consumption and greenhouse gas emissions data analyzed specifically for Lake Bluff. It is designed to give you information about how energy is consumed by your entire community. Use this report to prioritize strategies for energy efficiency and conservation and measure their progress.

The Value of Your Profile

Your profile includes annual citywide electricity and natural gas consumption, vehicle miles traveled, and a greenhouse gas emissions profile. Having this aggregate baseline data at the local level is important because it makes it possible to accurately benchmark energy use. Simply put, you cannot measure energy savings without first knowing your actual energy consumption. Further, pinpointing your community's energy trends will help you target the most effective programs to reduce energy use and costs.

About the Project

Your community's profile is part of a larger project called the Municipal Energy Profile Project (MEPP). The goal of MEPP is to provide all municipalities in the seven-county Chicago metropolitan region[1] with an energy and emissions profile and corresponding tools and resources to help each community best utilize the information presented in the profile.[2]

At the regional level, MEPP helps municipalities obtain a crucial starting point to discuss energy issues within their community. The communities in the Chicago metropolitan region will be better equipped to tap into existing regional and state resources while positioning the region for ongoing funding towards building a sustainable future.

This project is funded by the Illinois Clean Energy Community Foundation and relies on support from ComEd, Nicor, Peoples Gas, North Shore Gas, and Illinois Department of Transportation.

What's in Your Energy and Emissions Profile?

Introduction sections have been included before each dataset to familiarize readers with a few key concepts.

Section 1: Using Your Profile
Section 2: Electricity Consumption in Lake Bluff
Section 3: Natural Gas Consumption in Lake Bluff
Section 4: Transportation - Vehicle Miles Traveled in Lake Bluff
Section 5: Emissions Profile for Lake Bluff

[1] The seven counties in the region include Cook, DuPage, Kane, DuPage, Lake, McHenry and Will.
[2] CNT Energy is providing a MEPP guidebook; workshops and free technical assistance.

Section 1: Using Your Profile

While many municipalities have begun to identify strategies that impact municipal operations, recent funding opportunities provide an unprecedented opportunity to adopt broader community-wide strategies that will help residents and business owners reduce energy use and costs. The aggregate data and information provided in this profile can help in strategy development in the following ways:

1) Baseline Metrics: Serves as a starting point from which to measure the progress of strategies and programs.

2) Accurate Data and Measurements: Provides a more accurate picture of your community's average energy consumption based on actual utility data instead of national or regional averages. This will help you better calculate the potential for strategy savings, both individually and at scale.

3) Data Indicators: May assist in identifying some areas for targeting strategies. For example, a municipality whose average household energy consumption is significantly higher than the county may want to investigate the reasons why and identify potential residential energy saving strategies. (e.g. Is our average higher due to larger houses? Is it because we have an older, less efficient housing stock?)

More detailed examples are provided in the Guidebook for the Municipal Energy Profile Project.

Guidebook for the Municipal Energy Profile Project

To further investigate how you might use this profile, CNT Energy invites you to review the Guidebook for the Municipal Energy Profile Project; available at www.cntenergy.org. The Guidebook includes the following topics:

- Understanding your profile
- Municipal energy strategies
- Community-wide energy strategies
- Funding resources and technical assistance
- Glossary of energy terms and acronyms

Technical Assistance

Through the early part of 2011, CNT Energy will continue to provide free technical assistance to help communities understand their profile and provide information and resources for specific energy-related issues in their communities. For more information, please contact us:

Lindy Wordlaw, Senior Planner
773-269-4012 ▪ lindy@cntenergy.org

Kimberly Loewen, Planner
773-269-4089 ▪ kloewen@cntenergy.org

Section 2: Electricity Consumption in Lake Bluff

Electricity

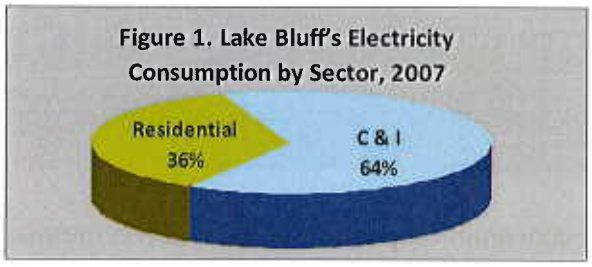
Electricity consumption in both the residential and commercial/industrial (C & I) sectors is currently increasing nationwide. Growth in consumer electronics and information technology equipment, as well as an increase in home size and air conditioning use are prominent reasons for consumption increases in the residential sector. In the commercial/industrial sector, increasing consumption is driven by telecommunication and network equipment along with specialized technologies such as medical imaging advancements.[3] Electricity is measured in kilowatt (kWh) hours.

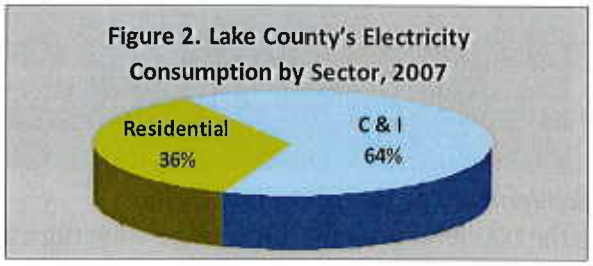
Total Consumption

In 2007, the amount of electricity consumed in Lake Bluff was 84 million kWh (Table 1). 36% of the village's electricity consumption occurred in the residential sector; the remaining 64% was consumed in the C & I sector. Figure 1 and Figure 2 compare electricity consumption by sector in Lake Bluff and Lake County[4].

Table 1. Total Electricity Consumption (kWh), 2007

	Lake Bluff	Lake County
Residential	30,251,987	2,712,001,587
C & I	53,766,063	4,909,885,018
Total	84,018,050	7,621,886,605





Residential Consumption and Costs

In the residential sector, the village's average annual consumption per household is 13,970 kWh. Factors that affect electricity usage include square footage, presence and efficiency of air conditioning, efficiency of lighting, appliances and systems, and occupant behavior. Table 2 compares village's average annual consumption and cost per household to that of the county.

Table 2. Residential Electricity Consumption & Costs, 2007

	Lake Bluff	Lake County
Number of Households	2,166	235,330
Average kWh per Household	13,970	11,524
Average Annual $ per Household*	$1,503	$1,240

*Calculated using average residential sales per kWh (ICC Utility Sales Statistics 2007)

[3] Energy Information Administration: "Miscellaneous Electricity Services in the Buildings Sector", AEO2007 http://www.eia.doe.gov/oiaf/aeo/otheranalysis/mesbs.html

[4] For municipalities located within more than one county, the county that contains the largest area of the municipality was used for comparison purposes for this report.

Section 3: Natural Gas Consumption in Lake Bluff

Natural Gas

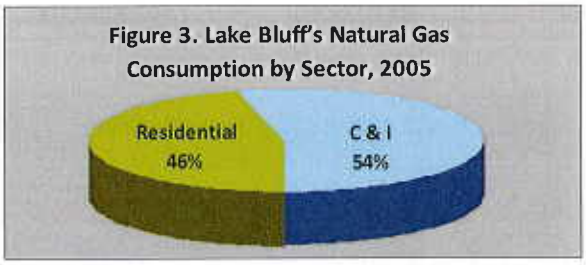
In Northern Illinois, natural gas is the primary space heating fuel. In addition to space heating, natural gas is commonly used for hot water heaters, clothes dryers, and cooking in the residential sector. However, natural gas consumption has been decreasing slightly over time in both the residential and commercial/industrial sectors as homes and buildings become more efficient and de-industrialization occurs. Natural gas is measured in therms.

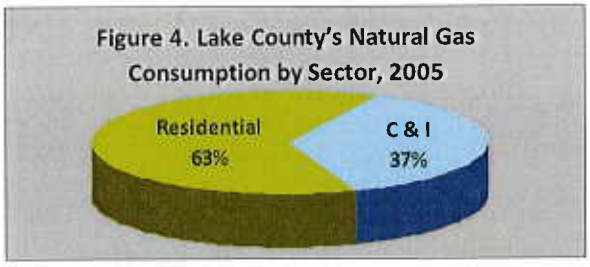
Total Consumption

In 2005, the amount of natural gas consumed in Lake Bluff was 10.3 million therms (Table 3).[5] 46% of the village's natural gas consumption occurred in the residential sector; the remaining 54% was consumed in the C & I sector. Figure 3 and Figure 4 compare natural gas consumption by sector in Lake Bluff and Lake County.

Table 3. Total Natural Gas Consumption (Therms), 2005

	Lake Bluff	Lake County
Residential	4,688,974	289,179,708
C & I	5,592,502	169,622,009
Total	10,281,476	458,801,717





Residential Consumption and Costs

In the residential sector, the village's average annual consumption per household is 2,165 therms. Factors that affect natural gas usage include building size, building age, building envelope efficiency, efficiency of the furnace, boiler and water heater, as well as occupant behavior and building operations and maintenance. Table 4 compares the village's average annual consumption and cost per household to that of the county.

Table 4. Residential Natural Gas Consumption & Costs, 2005

	Lake Bluff	Lake County
Number of Households	2,166	235,330
Average Therms per Household	2,165	1,229
Average Annual $ per Household*	$2,514	$1,316

*Calculated using average residential sales per therm (ICC Utility Sales Statistics 2007)

[5] Within the timeframe of this project, People's/North Shore Gas was unable to provide 2007 natural gas data. However, analysis determined the difference in heating degree days between 2005 and 2007 for the region was insignificant; signifying the difference in natural gas consumption would be minimal barring major municipal growth and development during that same time period. For municipalities that only obtain natural gas from People's/North shore, 2005 data was used. The aggregate represents total natural gas consumption in 2007.

Section 4: Transportation – Vehicle Miles Traveled in Lake Bluff

Typically, transportation accounts for the second largest portion of energy usage after buildings. For this report, Vehicle Miles Traveled (VMT) was tabulated from travel statistics provided by the Illinois Department of Transportation (IDOT) and scaled to your municipality based on Illinois Environmental Protection Agency (IL EPA) odometer and population data.

Total Consumption

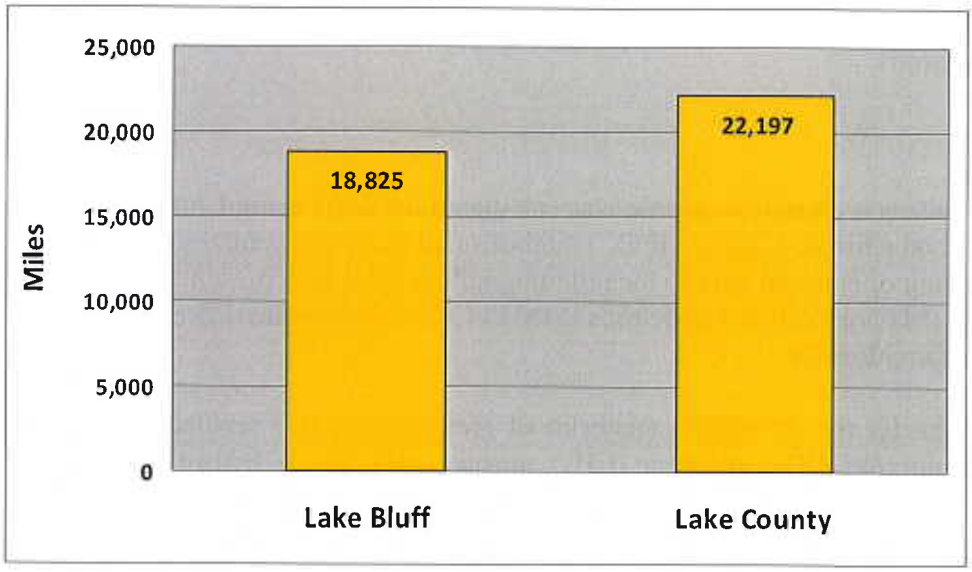
In 2007, total on-road travel on Lake Bluff roads accounted for 44.9 million miles (Table 5), which captures trips only within municipal boundaries. Further analysis shows that the average household in Lake Bluff drove 18,825 miles (Figure 5), totaling 40.8 million miles for all Lake Bluff households.

Table 5. Vehicle Miles Traveled (VMT), 2007

	Lake Bluff	Lake County
Total On-Road VMT	44,866,119	5,747,688,102
Household VMT	40,775,733	5,223,678,753

Factors that affect VMT per household include access to jobs, proximity to businesses and amenities, availability of public transportation, and community walkability. Variations are also influenced by many different demographic factors including income, household size, and workers per household. For example, large households with higher incomes may own multiple cars and drive more. Households situated close to reliable public transit or major employment centers may experience decreased annual VMT because they are not as dependent on cars.

Figure 5. Average Vehicle Miles Traveled per Household, 2007



Section 5: Emissions Profile for Lake Bluff

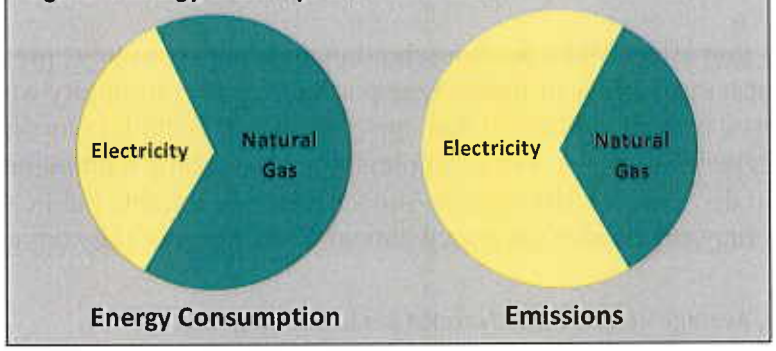
The Connection between Energy and Emissions

In addition to understanding energy consumption, it is important to recognize the relationship between energy and greenhouse gas emissions. Emissions attributed to electricity consumption are different from those attributed to natural gas consumption because of differences in the production of energy from different sources.

Most of the world's energy originates from the burning of fossil fuels including coal, petroleum, and natural gas. Fossil fuels consist of hydrogen and carbon, and when burned, the carbon combines with oxygen to create carbon dioxide.

However, all energy is not created equal. The amount of carbon dioxide produced for a given unit of energy depends on the carbon content of the fuel source. For example, coal (used to produce electricity) emits nearly two times the carbon dioxide per unit of energy compared to natural gas. Understanding this off balanced relationship is important when calculating emissions and identifying strategies to reduce emissions. Figure 6 illustrates this off balanced relationship between energy consumption and emissions, using data from the Chicago metropolitan region. Understanding this off balanced relationship is important when calculating emissions and identifying strategies to reduce emissions.

Figure 6. Energy Consumption vs. Emission



Emissions Calculations

Your municipal greenhouse gas emissions profile was calculated for 2007 using United Nations Intergovernmental Panel on Climate Change (IPCC) methods and local data sources in combination with modeling of national data to local demographics. All data presented are measured in metric tons (MT) or million metric tons (MMT) CO_2e (carbon dioxide equivalent), to enable comparison internationally.

Emissions were calculated for the six major categories of greenhouse gases regulated under the Kyoto Protocol: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Emissions were converted into CO_2e using global warming potentials from the IPCC Fourth Annual Assessment Report. Activity data were translated into emissions using standard emissions factors and global warming potentials.

Emissions Profile for Lake Bluff

An energy profile in the community serves as the basis for conducting a community greenhouse gas emissions profile. In addition to energy and transportation, which are by far the biggest contributors to greenhouse gas emissions, this emissions profile includes estimates for solid waste, waste water, and product use based on regional totals previously analyzed for a regional profile developed for the Chicago Metropolitan Agency for Planning (CMAP).

Below is the breakdown of Lake Bluff's emissions by sector (Table 6 and Figure 7).

Table 6. Lake Bluff's Emissions by Sector, 2007

Sector	MMT CO_2e
Electricity	0.059
Natural Gas*	0.055
Transportation	0.023
Solid Waste	0.002
Waste Water	0.001
Product Use	0.003
TOTAL	0.142

*Natural gas emissions were calculated using 2005 Peoples/North Shore data, explained in Section 3.

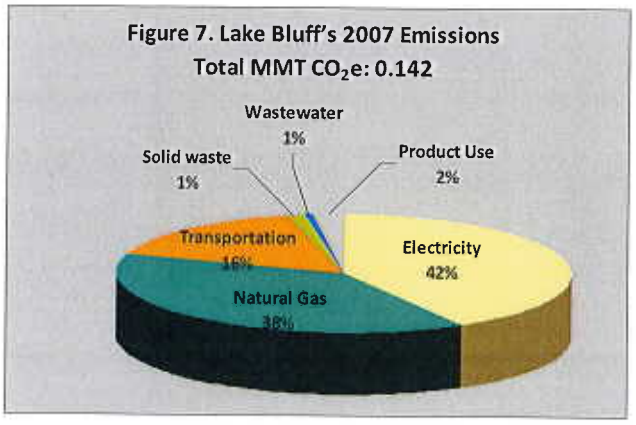
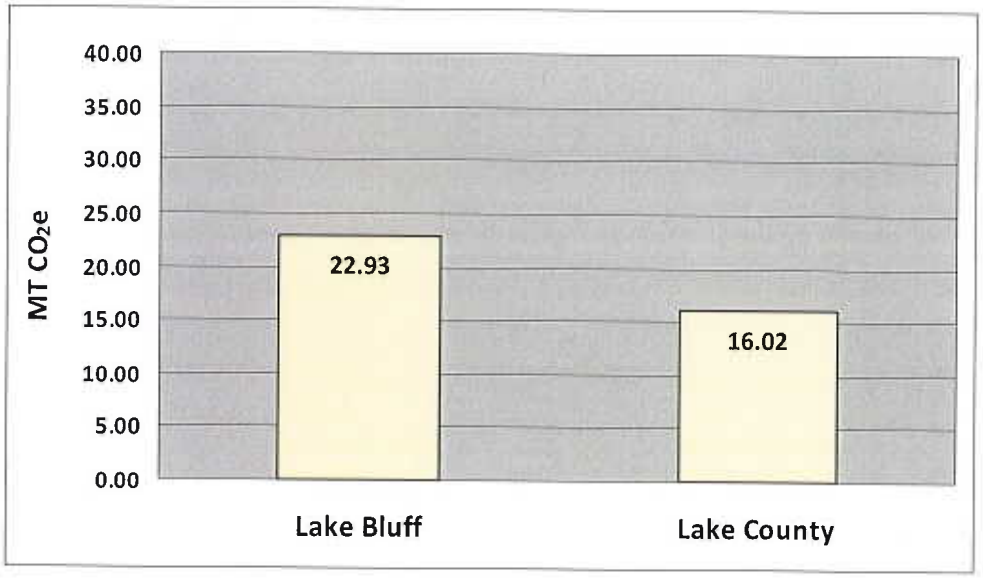


Figure 8 provides another context through comparison of Lake Bluff's and Lake County's 2007 emissions per capita.

Figure 8. Per Capita Emissions, 2007



MEMORANDUM

Date: November 23, 2016

To: Co-Chair Rener and Co-Chair Puryear and SEC Members

From: Franco Bottalico, Administrative Intern

Subject: Beekeeping Pilot Program

Staff has created an outline of a draft beekeeping pilot program for the SEC to review, revise (if necessary), and consider forwarding to the Village Board. Specifically, Staff suggests the SEC consider the locations where the pilot program should be conducted.

Attachment:

- Draft Beekeeping Pilot Program Outline with Attachments.

Lake Bluff Draft Beekeeping Pilot Program Outline

1.) **Locations**: All residents in the following Village Zoning districts are permitted to keep domestic honeybees and hives on their property: C-E; E-1; E-2; R-1; R-2; R-3; R-4; and R-6. The keeping of non-domestic bees is prohibited.

2.) **Notification**: Prior to establishing a hive, applicants must notify the Village by completing and submitting an application for beekeeping. In addition, residents must submit written proof of notice to all adjacent property owners, in a form provided by the SEC (attached). Notification to adjacent property owners is not required for renewals by any applicant that previously complied with this notification requirement in receiving a prior valid beekeeping license from the Village.

3.) **Registration**: All beekeepers must register their hives with the Village of Lake Bluff and submit proof that they have registered their hives with the Illinois Department of Agriculture.

4.) **Hives**: All bees must be kept in inspectable type hives with removable combs, which must be kept in sound and usable condition. No more than one hive per residence shall be permitted. Hives shall only be permitted in a resident's backyard. Hives must be a minimum of five feet from any property line and must be kept a minimum of ten feet from any sidewalk or publicly designated path, and if possible, kept out of view from neighbors and the public way. Hives must be placed in locations accessible for inspectors to access on a routine basis.

5.) **Fencing and hedges**: All hives must be enclosed by fencing or a hedge within no less than a 20x25 foot area with a secure gate, and signage warning of the presence of a bee hive on the property.

6.) **Water**: Each beekeeper must ensure that a convenient source of water is available at all times to the bees so that the bees will not congregate at swimming pools or other water sources where they may cause human, bird, or domestic pet contact. The water shall be maintained so as not to become stagnant.

7.) **Queens**: In any instance in which a colony exhibits unusually aggressive characteristics by stinging or attempting to sting without due provocation, or exhibits an unusual disposition towards swarming, it must be the duty of the beekeeper to requeen the colony. Queens must be selected from stock bred for gentleness and non-swarming characteristics.

8.) **Maintenance:** It is the responsibility of the beekeeper to properly maintain and care for bees and the hives in a manner acceptable to beekeeping best practices.

VILLAGE OF LAKE BLUFF
ADJACENT PROPERTY OWNER NOTIFICATION FORM

"Adjacent Property Owner" - All persons or entities that own real property that share a property line(s) with the beekeeping applicant's property. Government owned property and/or utilities are not considered adjacent property owners.

Street Address of Beekeeping Applicant:

_____

Adjacent Neighbors of Beekeeping Applicant:

BY SIGNING THIS NOTICE, I AM CONFIRMING THAT I HAVE BEEN NOTIFIED OF MY NEIGHBOR'S INTENT TO KEEP BEES ON HIS/HER PROPERTY

_____
Name/Address/Signature

_____
Name/Address/Signature

_____
Name/Address/Signature

_____
Name/Address/Signature

_____
Name/Address/Signature

_____
Name/Address/Signature

If you have any questions or concerns, please direct them to Franco Bottalico, Administrative Intern 847-283-6882, and/or email fbottalico@lakebluff.org, or to Drew Irvin, Village Administrator 847-283-6883 and/or email dirvin@lakebluff.org.