

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

Monday, May 6, 2019  
7:00 P.M.  
Village Hall Board Room  
40 East Center Avenue

**MEETING NOTICE & AGENDA**

1. Call To Order
2. Roll Call
3. Consideration of the April 1, 2019 Sustainability and Community Enhancement 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) Revised Draft of Village Sustainability Plan
7. Village Staff Report
  - a) Meeting Dates
8. Member's Report
9. Co-Chair's Report
10. Adjournment

*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 Glen Cole at (847) 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  
SPECIAL MEETING**

**April 1, 2019  
7:00 P.M.  
Village Hall Board Room  
40 East Center Avenue**

**DRAFT MEETING MINUTES**

**1. Call to Order**

The Village of Lake Bluff Sustainability and Community Enhancement Ad Hoc Committee (SEC) met on April 1, 2019 in the Village Hall Board Room (40 E. Center Avenue) at 7:02 p.m. and the following members were present:

**2. Roll Call**

Present: Brian Rener, Co-Chair  
Leslie Bishop  
Anne Sorensen  
Sophia Twichell

Absent: Marina Carney Puryear, Co-Chair  
Nan Patterson  
Emma Johnson

Also Present: Glen Cole, Assistant to the Village Administrator (AVA)  
John Scopelliti, Administrative Intern (AI)

**3. Consideration of the March 4, 2019 Regular Meeting Minutes**

Member Sorensen moved to approve the March 4, 2019 SEC Meeting Minutes. Member Bishop seconded the motion. The motion passed on a unanimous voice vote.

**4. Non-Agenda Items and Visitors**

Co-Chair Rener stated that 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 for items not on the agenda.

**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.

There was no request to change the order of the meeting.

**6. General Business**

**a. Garden Club Plans for Washington Park**

AVA stated that back in August 2018 the SEC first reviewed plans for Washington Park. He

stated that the Lake Bluff Garden Club brought forward a proposed redesign of the park, which is a small pocket park north of downtown Lake Bluff. He stated that at that time the SEC viewed the plan and suggest the Garden Club move forward with a first phase, but wanted to see more details regarding subjects described in the minutes. He stated that the new plan has been submitted and Deidre Toner is here to give a presentation.

Deidre Toner approached the podium to start her presentation. She stated that they were focused on bringing in an ADA compliant pathway and they wanted to look at the area that they had specified for a table or seating so they essentially have what they had before in August except for the addition of the proposed gravel pathway. She stated that the large round flagstone patio has been installed and the table is currently under design review right now. She stated that the Garden Club is trying to decide what type of table they would like to use right now. She stated that they need a 60 inch circular area for the stabilized granite pathway to back in and out of that table area for individuals with wheelchairs. She stated that they wanted to bring this in off the sidewalk so that way individuals can have access to the garden beds as the make their way to the table area. She talked about the integration of the rocks and boulders for the photo booth that they plan to have.

Member Twichell stated she was curious if they intend to have the pathway grey or what color specifically.

Deidre Toner stated that since the stone is a natural stone that she wants to match the existing flagstone that is present at Washington Park.

Deidre Toner stated that another thing they talked about was coordinating plant material with the upcoming Lake Bluff Landscape Identity, Gateway, and Corridor Study plant list. She explained the plants that will be used by the sign in the Southwest corner of the park as it will be a layered planting.

Member Twichell stated that she was curious if there has been an initiative on native plantings in this plan.

Deidre Toner stated that almost all are native cultivars and there are probably 5 or 6 plants that are not native in this plan.

Member Twichell stated that she was curious if any science has come out regarding the nativar's benefit to pollinators.

Deidre Toner stated that there is no definitive answer as this is still being researched. She stated that there are several areas out on the east coast and down in Texas where this type of research is being conducted. She stated that botanical gardens have just started conducting trials on this type of research. She stated that we could go all natives but she believes that nativars will give this park a beautiful blend of seasonal colors to the park.

Deidre Toner stated that they intend to do an ADA compliant water fountain with a pet-friendly attachment. She stated that there are several out on the market right now but for the purposes of Washington Park we are showing some commercial options. She stated that they can have different power coat colors and that these water fountains can run anywhere from \$4,000 to \$7,000. She stated that they do have some architectural series options too but all water fountains have the option to add a pet-friendly attachment or a jug filler attachment.

Member Bishop stated that at the previous meeting we talked about the addition of trash and recycling receptacles and she didn't see them in the new plan so she was curious as to where they plan to place them along with what will they look like.

Deidre Toner stated that there was a recent order of furniture from the village that was going to address that situation. AVA Cole stated that he was not aware of this furniture order. She stated that she knew the Village was in the process of obtaining more receptacles so she emphasized that she wanted to show consistency in Washington Park along with what the village currently has for its outside furniture. She stated that once there is more clarity regarding this furniture that she would have a more definitive response for Member Bishop. She stated that these receptacles would be closer to the sidewalk instead of closer to the eating area. She stated that these locations are flexible and can be moved around to the liking of the SEC.

Member Bishop stated that she recalls from the original discussion that both Member Patterson and she brought up the definitive maintenance duties for this park along with if there is any resident interest in assisting with this park.

Deidre Toner stated that Kinnucan has committed to one year of maintenance at Washington Park. She stated that she provided a document to the Garden Club which lays out a 4-year plan for maintenance. She stated that this plan specifies how many hours need to be allocated to have a high level of quality maintenance. She stated that the Garden Club is looking to start a fund for \$10,000 - \$20,000 to be given over to the Village and kept in a separate account that is specifically meant for the maintenance at Washington Park.

Member Bishop stated she was curious if there was interest gathered from high school students in regards to possible service hours at the park.

Deidre Toner stated that she has not worked on that but the Garden Club has been spear-heading that objective.

Co-Chair Renner stated he was curious about signage and education for the community.

Deidre Toner stated that after once everything is planted, they are going to look at where the best individual signs will be placed then the Garden Club will order the same type of signs as the Chicago Botanical Garden. She stated that they would like to have a special posting at the front of the park that gets changed every two weeks or every month that someone from the Garden Club will take care of. The posting will talk about seasonal topics or interesting tips to know for gardening certain plants.

Deidre Toner believes the planting will take place from May 15 to May 30 pending the weather. She stated that they will start with re-organizing the beds and integrate the plants to the appropriate locations. She stated that she believes the pathways and crab apple trees will be going in around the early part of May.

Co-Chair Renner stated he was curious if there would be any opening ceremony.

Deidre Toner stated that there will be a dedication but they're waiting to do that until the table is installed. She believes that will be later summer – early fall. She stated that they just

secured the table from Mike Jarvi at Crab Tree Farms. She stated that they plan to do an octagonal or rectangle table with the oak tree.

Member Sorensen stated that she was curious if there was a water plan to be implemented since they intend to water between mid to late May.

Deidre Toner stated that there is irrigation in the garden now and the heads are in the lawn so they intend to re-evaluate the setup of the irrigation system.

AVA Cole mentioned that a meter pit will be buried at the park due to state law policies. A brief discussion commenced.

Member Bishop stated that she moves to recommend the Village approve the Garden Club plans for Washington Park. Member Sorensen seconded the motion. The motion passed on the following roll call vote:

Ayes: (4) Twichell, Sorensen, Bishop, Rener  
Nays: (0)  
Absent: (3) Puryear, Patterson, Johnson

**7. Village Staff Report**

AVA Cole stated that Sustainability Plan revisions are close to completion and should be presented at the SEC's May meeting.

**8. Member's Report**

There was no member's report.

**9. Co-Chair's Report**

Co-Chair Rener attended the Village Board meeting to present the Landscape Identity, Gateway, and Corridor Study. He stated that it was met with a positive response from the board. He stated that the leaf blower survey was discussed at the Village Board level and that the hours of operation were discussed. He mentioned the SEC would be willing to look into this discussion if necessary. He talked about the idea of green landscaping initiatives for this committee to address in the future. Member Twichell stated that she thinks it would be fantastic to have a workshop to teach landscaping companies how to conduct green landscaping and other sustainable initiatives.

**10. Adjournment**

As no further business came before the SEC, Member Sorensen moved to adjourn the meeting at 7:35 p.m. Member Twichell seconded the motion. The motion passed on a unanimous voice vote.

Respectfully Submitted,

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John Scopelliti  
Administrative Intern

# MEMORANDUM

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**Date:** May 3, 2019

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

**From:** Glen Cole, Assistant to the Village Administrator  
John Scopelliti, Administrative Intern

**Subject:** Revised Draft of Village Sustainability Plan

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Village Staff have revised the full draft of the Village Sustainability Plan based on direction given from the SEC's February review.

The SEC should discuss the revisions to the current draft; if it is ready to proceed with public outreach and graphic design in preparation for a recommendation in June; and if it should focus on the following plan goals for the next 18 months:

**2019**

LP-1, LP-2, or LP-3  
NS-3

Light pollution  
Partnerships to remove invasive species

**2020**

SR-1  
BP-4

Commercial recycling  
Bicycle parking

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**Attachments:**

- Draft of the Village Sustainability Plan

# **Village of Lake Bluff Sustainability Plan**

**Draft**

**Draft - February April 2019**

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## Introduction

### What is Sustainability?

While there are many working definitions of sustainability, one of the first – and best known – originates from a 1987 United Nations report by the World Commission on Environment and Development, *Our Common Future*. It defines sustainability as:

*Development that meets the needs of the present  
without compromising the ability of future  
generations to meet their own needs.*

Sustainability is also commonly defined as the intersection or balancing of three values (the “Three Es”) in decision-making: **Environment**, **Economy**, and social **Equity**. Sustainable actions and plans promote these three values collectively, rather than dealing with each value in isolation or promoting one value at the expense of another.

### A Sustainable Lake Bluff...

When asked in a recent survey, most Village residents respond poorly when asked if Lake Bluff is a sustainable community (1). This plan is our response – a coordinated strategy to develop a healthier relationship between our social and economic community and the natural environment.

This Plan was crafted by the Village’s Sustainability and Community Enhancement Ad Hoc Committee as a living document that is used, revisited, and revised from experience by the Committee, the Village Board, and residents. It identifies key areas of concern, documents current conditions and best practices, and challenges our community to be more sustainable through action. Where actions by the Village are proposed, know that each will be considered publicly and transparently consistent with the Village’s commitment to citizen engagement and good governance.

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~~We want to~~ This Plan aims to improve Lake Bluff’s sustainability in seven key areas:

- **(SR) Solid Waste Management and Recycling.** Achieve recycling rates over 60% through a combination of waste reduction, materials reuse, and active promotion and expansion of recycling.
- **(EC) Energy Conservation.** Leverage improvements in energy efficiency and alternative energy to reduce Lake Bluff’s single largest source of carbon emissions.
- **(WC) Water Conservation.** Continue to reduce per capita usage of Lake Michigan water.
- **(SW) Stormwater Solutions.** Become more resilient to natural hazards and our changing climate by implementing professional stormwater management practices that incorporate natural features.
- **(NS) Natural Spaces.** Restore and protect Lake Bluff’s valuable, unique, and native natural resources.
- **(LP) Light Pollution.** Balance economic and security needs with our small-town character and charm.
- **(BP) Bicycle and Pedestrian Transportation.** Promote transportation methods that impose lesser impact on our environment, promote our health, and improve our recreational opportunities and quality of life.

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## Relationship to Other Plans

Owing to the intersectional and inter-disciplinary nature of sustainability, this plan lies at the intersection of other Lake Bluff plans and policies including:

- **2023 Strategic Plan.** The Sustainability Plan details and implements key policy areas of the Village Board's Strategic Plan, notably *Public Assets* and *Environmental Sensibility*.
- **Comprehensive Land Use Plan.** The Comprehensive Plan takes a longer-term view of Lake Bluff over a 20-year time horizon and focuses on policy through the lens of land use and public services. Its next revision may incorporate this plan, which would capture the Sustainability Plan's greater focus on near-term actions. The connections between these two plans are strongest in their policies concerning *Natural Spaces* and *Bicycle and Pedestrian Transportation*.
- **Lake County All Natural Hazards Mitigation Plan ("ANHMP").** The ANHMP, adopted by the Village, is Lake County's coordinated plan to improve our resiliency to natural disasters. The Sustainability Plan's actions concerning *Stormwater Management* and *Natural Spaces* will implement the plan.
- **Thematic Landscape Identity, Gateway, and Corridor Plan ("Playbook").** The Playbook is principally directed to the Sustainability and Community Enhancement Committee's other mandate concerning community beautification. However, the Playbook implements the Sustainability Plan through its action steps to enhance open spaces and use native species on public and private property.

## Sustainability Survey

As you read this Plan, you will find multiple references to the Village's sustainability survey. The Village conducted an informal survey of approximately 120 residents over three weeks in early 2018. Invitations were shared via Facebook, the Village's e-mail newsletter, and the Village website. The survey collection the opinions of participants regarding:

- How many of 16 key sustainable practices they undertake in their daily lives.
- Their perceptions of the sustainability of Lake Bluff and its residents.
- The relative importance of competing sustainability topics.
- Open response questions about what Lake Bluff does, and can do, to be more sustainable.

This is not a statistically valid survey and should not be read as a perfect measurement of Lake Bluff's practices or opinions. It was used to inform and guide the Committee's initial discussions and to generate ideas for action, some of which were directly incorporated into this Plan.

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## In each section, you will find...

**Introduction.** Each section includes a brief primer on why an area is an important sustainability issue, as well as information specific to our Village. Throughout each section, we've documented our references to help you learn more or discover additional resources.

**"A Sustainable Lake Bluff."** These principles each describe a key aspect of our vision for addressing an area holistically. They often describe how an issue locally applies to us or how we have conceptualized or examined it. They form the framework for the action steps that follow.

**"What We Will Do."** These are specific action steps to achieve a sustainable Lake Bluff. They...

**Celebrate Success.** We've already taken positive steps towards sustainability that many other communities haven't. Each section starts by highlighting those policies and programs that we already have in place. These are essential building blocks and should be monitored to ensure that they continue to be applied and be effective.

**Lead By Example.** While some of these steps are regulatory, many are concerned with how the Village does business or invests in public assets. We can't ask our residents and businesses to make changes if we aren't willing to do so ourselves.

**"What You Can Do."** OurThe Village government is just one part of the Lake Bluff community. It will take all of us working together to achieve the vision we have of a sustainable Lake Bluff. Often, these large problems seem overwhelming for individuals to tackle. For each action area, we list simple steps you can start today to change Lake Bluff for the better. Almost all of these are merely changes in behavior... or demonstrably pay for themselves in the long run. through economic return or when compared to the generational cost of inaction.

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## Solid Waste Management and Recycling

Achieve recycling rates over 60% through a combination of waste reduction, materials reuse, and active promotion and expansion of recycling.

“Solid wastes’ are the discarded leftovers of our advanced consumer society,” said President Jimmy Carter in 1977. “This growing mountain of garbage and trash represents not only an attitude of indifference toward valuable natural resources, but also a serious economic and public health problem.” (2) Unfortunately, the same critique still applies today. Total waste production continues to grow annually in Lake Bluff and Lake County, even as Chicago’s landfills have just 11 years remaining before they are completely full (3; 4). The subject of recycling and waste reduction was identified as one of the top three most important issues in the Village’s sustainability survey (1).

### A Sustainable Lake Bluff...

- **Continues to build on its recycling success.**  
*Lake Bluff has the second highest recycling rate (34.1% by weight) among Lake County municipalities, and operates one of the first residential food scrap programs in Illinois (3; 5). This, however, is still far short of Lake County’s goal of achieving a 60% recycling rate by 2020 (6). Virtually all respondents to the Village’s sustainability survey stated that they separate recyclables and recycle about as much as they throw away; however, very few use the Village’s food scrap program (1).*
- **Prefers reuse to waste.**  
*Half or more of the respondents to the Village’s sustainability survey use reusable bags at the grocery store; are bothered by the use of disposable water bottles and by people throwing away things that could be recycled; and try to avoid single-use disposable items such as cups and utensils (1).*

### What We Will Do

- ✓ **Implement a residential recycling program for all households.**
  - ✓ **Implement a residential food scrap composting program for all households.**
  - ✓ **Require a minimum level of recycling for building construction and demolition debris.**
- SR-1.** Conclude [the SWALCO study of commercial recycling \(7\)](#). At the study’s conclusion, choose either to provide Village commercial trash and recycling service via franchise, or partner with private haulers and businesses to improve recycling rates.
- SR-2.** **Add recycling containers in public realm spaces**, with a goal of providing one recycling container adjacent to each public trash can. Consider requiring privately maintained street recycling containers to be provided where trash containers are provided and review these arrangements during commercial site plan reviews. Label public trash cans as “Landfill” prominently to encourage thoughtful personal waste habits (8).
- SR-3.** Explore how to monitor and incentivize **commercial sustainable business practices**, especially for businesses required to seek a special use permit or other zoning relief to operate.

- SR-4.** Monitor the use and effectiveness of the Village's existing recycling policies and **publish a report annually** on their success.
- SR-5.** Proactively and regularly **educate residents** on Village programs and self-help opportunities to better manage waste. Use communications, signage, event outreach, and Village business practices to reach residents continually.
- SR-6.** Work to **reduce the Village's paper consumption** by improving electronic notifications and billing, eliminating paper workflows, and encouraging the use of recyclable products for public events.
- SR-7.** Support and promote **"Bring Your Own Bag"** efforts by retailers and in the community, as well as other programs that promote the use of recyclable bags and discourage single-use waste. Monitor State legislative action that would impose a fee for single-use plastic bags.
- SR-8.** **Partner with schools** to educate students about the importance of recycling and conduct programs such as "Waste Wednesday," where students **try to reduce** their waste footprint. Celebrate the success of school recycling programs in the report contemplated by **SR-4**.

## What You Can Do

- **Keep our recycling clean.** Don't place soiled food containers or plastic film or bags in your recycling. Due to new recycling regulations, very small amounts of contamination can cause problems (9). [See here for a full list of what to recycle and what to send to the landfill \(10\).](#)
- **Start using our food scrap program!** We've taken all the mess out of composting. Just put your food scraps out with your yard waste. We use them to create nutritious mulch that helps improve Lake Bluff landscapes and reduces fertilizer runoff.
- **Get the most out of reusable food containers.** Restaurant takeout containers can be washed and reused repeatedly before wearing out, and glassware can eliminate the need for plastic sandwich bags.

## Energy Conservation

*Leverage improvements in energy efficiency and alternative energy to reduce Lake Bluff's single largest source of carbon emissions.*

In the United States, electric power generation is about co-equal with transportation as the largest generator of greenhouse gas emissions, and downward trends in these emissions correlate with increased substitution of renewables and natural gas in place of coal power (11). The cost of constructing alternative energy capacity continues to decline, with new wind and solar production forecast to be cheaper than 96% of current coal plants by 2030 (12). A McKinsey & Company study earlier this decade found that energy efficiency measures could reduce annual U.S. energy consumption by 23%, with residential savings accounting for about one-third of this potential (13). In Illinois, the Future Energy Jobs Act ("FEJA") will: require electric utilities to make significant investments in energy efficiency for consumers; set a goal of creating 4.3 gigawatts of new solar and wind power in state; and create a market for community solar projects that end-users can participate in through their utility bill (14).

About one-third of Lake Bluff's electricity consumption is produced by coal-burning plants (15). In 2007, Lake Bluff households consumed 21% more electricity and 76% more natural gas than the average Lake County household (16). Together, Lake Bluff's consumption of electricity and natural gas represents about 80% of its total carbon dioxide emissions, which are almost 50% higher than the average Lake County household (16).

### A Sustainable Lake Bluff...

- **Uses solar power to reduce emissions and energy demand.**

*Google's [Project Sunroof](#) estimates that over half of Lake Bluff's roofs are viable sites for a solar panel installation (17). The average Lake Bluff roof is estimated to be able to generate over 8 megawatt-hours of power annually after accounting for shade, climate, and weather. Such an installation would avoid about 4.9 metric tons of carbon emissions annually, more than a typical car emits in a year of driving (18; 19). Alternatively, residents can participate in Illinois' [community solar program](#) and realize cost and carbon savings by funding solar panel installations at remote sites (20).*

- **Prioritizes energy efficiency when reinvesting**

*Many people are familiar with appliance efficiency recognition programs such as Energy Star, and certifications such as LEED that are typically seen in commercial construction. The next generation of energy efficiency programs has a focus on residential construction. Programs such as [Passive House](#) aim to minimize household heating and cooling expenses, and the Department of Energy's [Zero Energy Ready Home](#) promotes homes that yield no net energy consumption. The State of California has set a 2020 target for all new residential construction to be zero net energy consumers (21).*

### What We Will Do

- ✓ **Enact an Energy Conservation Code for all structures.**
- ✓ **Simplify how residents may install solar power facilities through changes to the zoning code.**

- EC-1. Consider designation as a [SolSmart community](#) to demonstrate our commitment to solar development (22).
- EC-2. Analyze the installation of a model **renewable solar energy system at a municipal facility**; consider implementation based on projected return-on-investment from incentives and energy savings.
- EC-3. In lieu of regulation, explore how to monitor and incentivize **commercial use of green technologies**, such as renewable energy or sustainable building materials. Consider aligning programs to rating systems such as LEED or Energy Star.
- EC-4. Consider an optional program that allows residents to participate in the wholesale purchase of **electricity from 100% renewable sources** if Village-wide electrical aggregation once again becomes economical.
- EC-5. Partner with ~~community destinations~~ [Lake Bluff School District #65 and Lake Forest High School](#) to **reduce vehicular idling through education and outreach.**
- EC-6. Offer a **plug-in hybrid charging station** at the Metra Parking Lot and consider installation in other areas.

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## What You Can Do

- **Consider solar options.** Some homes in Lake Bluff are likely to save thousands of dollars by installing a solar energy system (17). Even if your house isn't a great candidate, future community solar installations produced by Illinois' Future Energy Jobs Act may allow you to buy solar energy from a remote site at a discount compared to ComEd's wholesale rate (23).
- **Schedule a home energy audit.** Professional home energy audits help you learn where you are losing energy efficiency, especially from heating and cooling losses (24). Over half of Lake Bluff's housing stock is over 50 years old and may benefit from modern sealing and insulation (25).
- **Don't idle.** Idling wastes gasoline and, when children are present, prolonged idling exposes them to pollution from exhaust (26). If you are parked or in a loading zone for more than a minute, turn your car off and turn it on again only when you can move. Similarly, in winter weather, modern engines need 30 seconds at most to "warm up" before driving (27).

## Water Conservation

*Continue to reduce per capita usage of Lake Michigan water.*

Lake Bluff draws its water from Lake Michigan, one of the largest surface supplies of fresh water in the world (28). Even so, the Great Lakes Compact allows the state of Illinois to draw only a limited amount at any one time (29). Lake Bluff, through the Central Lake County Joint Action Water Agency (CLCJAWA), is allocated a share of the state's allocation, and the state imposes certain conservation requirements (30).

When we talk about water conservation in Lake Bluff, people tend to shrug and wonder "Why worry?" The answer is about half a world away. The Aral Sea, located between Kazakhstan and Uzbekistan, was the fourth largest inland water body in the world... until the Soviet Union began diverting water for agricultural production (31) (32). Over the course of 60 years, the Aral Sea was reduced to a fraction of its size. Its waters are now too salty to drink or to support marine life, and in 2014, its eastern basin dried completely (33). [PHOTO: ARAL SEA BEFORE/AFTER](#)

The Great Lakes Compact was formed in 2008 to stop any future diversion of lake water to communities outside the lake basins and to require Great Lakes states to regulate their own water use – in part after proposals to move massive amounts of lake water to markets in western states and Asia (34). While the compact is seen as effective, concerns persist that climate change will raise pressure for Congress to weaken the compact in order to provide relief (35). Western states are among the fastest growing in population and the most vulnerable to droughts and water insecurity due to climate change (36). Pressures mount within the Great Lakes region as well. The opening of Foxconn's liquid-crystal display manufacturing plant will drain about 7 million gallons daily from Lake Michigan, from which 2.7 million gallons daily would not be returned (37). In siting their new plant, Foxconn was principally concerned with access to water for their manufacturing process (38). Protecting Lake Michigan from these pressures demands that we are responsible with our share of allocated water for public use.

### A Sustainable Lake Bluff...

- **Makes the most of Lake Michigan water.**  
*Less than half of respondents to the Village's sustainability survey say that they have water-conserving faucets, showers, or toilets, and only about 1-in-6 reuse stormwater for landscaping purposes (1).*
- **Substantially reduces lost water.**  
*A 2017 Chicago Tribune investigative report found that the Village was in the top fifth of Lake Michigan water recipients for water loss (39). Illinois law sets the maximum permissible water loss standard at 12%, which will soon decrease further to 10% for year 2019 and thereafter (30). While the Village has proactively replaced water mains and [repeatedly](#) performed acoustic leak detection, the exact cause of our water loss remains unknown.*

### What We Will Do

- ✓ **Require the installation of WaterSense fixtures for all new permitted work.**
- ✓ **Regulate the times when lawns may be irrigated by sprinklers (5 p.m. to 11 a.m.).**

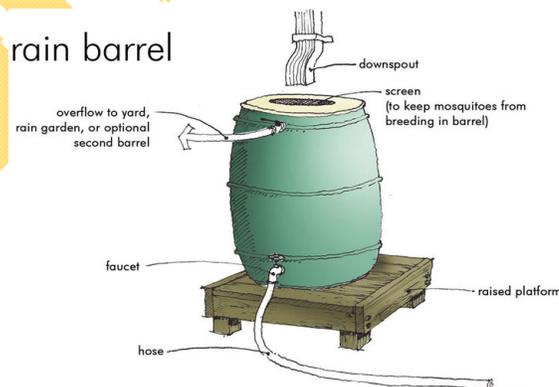
**WC-1.** Continue to investigate and seek solutions to **system water loss**.

- WC-2.** Provide **benchmarking information and tips** to residents on their water bills that help residents compare their usage with neighbors.
- WC-3.** Consider tiered **rate structures that incentivize conservation** by charging more per gallon to more intense users of the Village's potable water.
- WC-4.** Review **lawn irrigation practices** in the Village; communicate information on conservation practices (e.g. times of day, moisture sensors) and consider other regulatory steps.

## What You Can Do

- **Time for old toilets to go.** Toilets are the largest indoor water using fixture in single-family homes (40). If you still have toilets from before 1995, they're costing some serious money. For a typical Lake Bluff house, just replacing these older toilets with new WaterSense certified fixtures is likely to save at least 14,000 gallons annually or over \$100 in yearly costs (41; 42). Dual-flush toilets (that have a second mode for smaller flushes) can save even more water and money.
- **Small fixtures add up!** Together, showers and faucets represent over one-third of a household's water usage (40). Showerheads and faucets or faucet aerators are easy for homeowners to replace. Replacing these pre-1995 fixtures with WaterSense equivalents can save the typical Lake Bluff home almost 8,000 gallons of water each year and will most likely pay for itself within two years (41; 42).
- **Replace your lawn irrigation controller with a WaterSense certified controller.** Lawn watering represents over one-third of a typical household's water usage on average (43). New irrigation controllers can use local weather and soil conditions to determine when watering is needed, rather than a simple timer. This change can save over 7,000 gallons of water each year for a typical household, or about \$55 in yearly costs (44).
- **Add a rain barrel.** Rain barrels capture rainwater from your roof and allow it to be used for landscape watering when it is drier out. The Solid Waste Agency of Lake County (SWALCO) sells discounted [55-gallon rain barrels for \\$60 year-round](#), including the necessary hardware to modify existing downspouts (45).

### rain barrel



*Illustration courtesy Tip of the Mitt Watershed Council (102)*

## Stormwater Solutions

*Become more resilient to natural hazards and our changing climate by implementing professional stormwater management practices that incorporate natural features.*

Lake Bluff, like much of the Chicago region, was designed and built before the advent of modern stormwater management (46). Climate change and the continued urbanization of Chicagoland have exacerbated these existing issues and result in an increasing number of urban flood problems such as ponding water, basement seepage, and sewer backups (47). Just under 1-in-10 Village residents identified flooding as the most important local issue facing Lake Bluff in 2017, and the Center for Neighborhood Technologies has found that a wet basement can be a primary reason for not purchasing a home and can reduce its value by as much as 25% (48) (49).

Many people don't realize it, but Lake Bluff straddles a continental divide. West of Green Bay Road, stormwater runoff ultimately flows into the Mississippi River by way of the Skokie River as a tributary of the Chicago River (50). East of Green Bay Road, the Village's stormwater runoff flows directly into Lake Michigan through a system of ravines that extend west from the lake (51).

## A Sustainable Lake Bluff...

- **Is resilient to disasters and our changing climate.**  
*Storms are only getting more severe in Chicago. From 1979 to 2009, the region experienced 40% more precipitation than the prior 30-year period, and in recent years, up to 40% of total annual precipitation has been delivered on the top 10 rainiest days (52). One recent event, the July 12, 2017 flash flood, was a 1-in-140 chance storm that damaged over 70 Lake Bluff homes (53). Climate change is likely to further increase spring rainfall, annual precipitation, and severe storms (54).*
- **Defends against erosion damaging our ravines and ecosystems.**  
*Erosion caused by increased volumes and velocities of stormwater is one of the biggest threats to watersheds including Lake Bluff's ravines (55). New stormwater best management practices ("BMPs") Management of stormwater using green infrastructure techniques mimic natural processes to slow down stormwater runoff, which reduces peak runoff volume and reduce high flow velocities that erode ravines (56; 55).*
- **Stops pollution from entering our watersheds.**  
*Stormwater carries pollutants such as fine sediments, oil byproducts, and trash and debris into our rivers and lakes (57). Green infrastructure BMPs can filter these polluting substances and capture them in plants and soils before they reach our waterways (56; 57).*

## What We Will Do

- ✓ **Set a standard for the appropriate level of public infrastructure flood protection and pursue improvements to achieve that standard.**
- ✓ **Impose impervious surface limitations, drainage plan reviews, and watershed development reviews to control development's effect upon flooding. Require most homes to provide additional stormwater storage upon redevelopment or significant renovation.**
- ✓ **Provide technical assistance to homeowners and businesses who seek to reduce flooding.**

- SW-1.** Provide **effective public information on stormwater solutions** to equip homeowners to protect their property from flooding and damage.
- SW-2.** Support the installation of stormwater **Best Management Practices Green Infrastructure** (e.g. **Best Management Practices**) on private property (58). Consider **establishing** programs that would provide or reimburse homeowner equipment (e.g. rain barrels).
- SW-3.** **Lead by example** by incorporating green **Best Management Practices infrastructure** in public facility and street improvements.
- SW-4.** Enable and provide guidance on the appropriate use of **permeable pavement solutions** in development. Where impervious surface limits apply, consider providing a realistic offset to stormwater calculations where permeable solutions are used.
- SW-5.** Explore public **recognition programs**, including the establishment of a local recognition program, for homeowners that implement **stormwater best practices green infrastructure** such as native plantings, grading, and swales (see **NS-6**).

## What You Can Do

- **Review grading.** Small drains in your yard can't handle large storms. Grades should direct most water away from you and your neighbors' homes and toward the street. Cooperating to grade common lot lines would fix many runoff problems in the Village (53).
- **Install permeable pavement instead of asphalt and concrete.** **Permeable pavement systems** help trap pollutants and slow stormwater runoff (59). When used for driveways, these systems have been shown to require as little as 25% as much salt to effectively deice (60). While some existing systems in the Village may allow grass and plants to grow through them, others resemble traditional concrete or asphalt in appearance.
- **Add a rain barrel.** Rain barrels capture rainwater from your roof and allow it to be used for landscape watering when its dry out. The Solid Waste Agency of Lake County (SWALCO) sells discounted **55-gallon rain barrels for \$60** year-round, including the necessary hardware to modify existing downspouts (45).

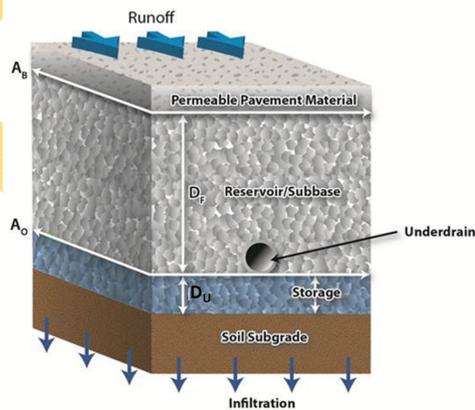


Illustration courtesy Minnesota Pollution Control Agency (101)

## Natural Spaces

Restore and protect Lake Bluff's valuable, unique, and native natural resources.

Respondents to the Village's sustainability survey identified protection of open spaces as one of their highest priorities for sustainability efforts (1). Village studies estimate that 40% of the Village's incorporated area is used for recreational and open spaces, with even more area allocated to natural spaces that are accessory to residential developments (e.g. Tangley Oaks) or estate neighborhoods with large lots (61). Many of the Village's most prominent and notable landmarks are open and natural spaces, including the Village Green; Lake Bluff Golf Course; Sunrise Beach; the Sheridan Road greenbelt; our ravines, including Ravine Park; and Crab Tree Farm. A Chicago Regional Trees Initiative study found that 50% of Lake Bluff was covered by tree canopy, tied (four-way) for the 8<sup>th</sup> highest of 372 Chicago land municipalities studied (62).

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Community partners such as Lake Bluff Open Lands Association and the Lake Bluff Garden Club play ~~their~~ a key role in creating and preserving natural spaces. Lake County also contributes through their stewardship of the Forest Preserve's Oriole Grove, as well as their County-wide goal of eliminating buckthorn. These partners have also been leading advocates in restoring native species to Lake Bluff. Increasing the diversity of Lake Bluff's plant species provide habitats for other species and increase our resilience to climate change and plant disease. Residents play a vital role in this goal when we choose to create open spaces with natural species around our homes.

## A Sustainable Lake Bluff...

- **Celebrates and restores native landscaping.**  
*Plants native to Northern Illinois reduce maintenance and water usage and support pollinators (63) (64). In comparison, recent research has found that even "a relatively small proportion of nonnative plants can make a habitat unsustainable for bird species" (65). As described elsewhere in this plan, native landscaping practices can help reduce potable water consumption and stormwater runoff.*
- **Treasures its ravines.**  
*Lake Bluff's ravines are a unique feature of the Lake Michigan watershed and are a foundational part of our development and history (55). They are home to beautiful, fragile, and unique habitats including some of Illinois' rarest plants (66). Lake Bluff previously received one of the first U.S. EPA ravine restoration grants in 2010-2013 (67).*

## What We Will Do

- ✓ **Preserve the urban tree canopy through Village support and an effective tree protection ordinance. Be recognized as a Tree City USA.**
- ✓ **Protect ravines and bluffs from negative impacts due to development.**
- ✓ **Village property owners and residential developments make robust use of conservation easements and common space.**
- ✓ **Village zoning is designed to preserve long-term dedications of land for open space and recreational purposes and enhances public benefits resulting from such parcels.**

- NS-1. Publish a **list of recommended native and adapted species** which support the Village's natural beauty. ~~increase and which will continue, through diversity, to increase~~ resilience against plant disease outbreaks ~~and support pollinator populations~~. Lead by example by using these on municipal properties and in rights-of-way. Evaluate their application in site plan review of commercial landscapes.
- NS-2. Continue to lead in **ravine maintenance, protection, and restoration**. Pursue partnerships with outside agencies and private landowners that preserve ravines. ~~Consider zoning changes to shift future development further away from vulnerable table land.~~
- NS-3. Allocate resources for collaborations by the Village and community partners that **remove invasive species**.
- NS-4. Provide **interpretive signage** for restoration and natural resource projects that raise awareness and convey importance.
- NS-5. **Educate residents** on managing lawns and gardens using natural products and low-impact practices that reduce ~~fertilizer and pesticide use~~ ~~usage of pesticides, fertilizers, and other chemical lawn treatments~~.
- NS-6. **Promote recognition** programs for homeowners such as ~~Conserve Lake County Openlands's Conservation@Home certification~~ and the ~~Million Pollinator Garden Challenge~~. (68),(69) Explore the establishment of a local recognition program (see **SW-5**).
- NS-7. Pursue creation of **neighborhood gardens** that utilize open land and allow residents to grow food cooperatively. Continue thoughtful pilot programs that support urban agriculture. ~~such as the keeping of chickens and bees~~. at home.

## What You Can Do

- **Eliminate buckthorn and other invasive species.** Buckthorn crowds out other plants and disrupts natural ecosystems (70). It is illegal to sell in Illinois. Even if you may not mind it, having it present on your property allows birds to continue the spread of buckthorn seed by eating its berries (71). There are natural screening trees and shrubs that are more attractive and do not have the same negative impacts. While buckthorn is the most pervasive in Lake Bluff, [other invasive species](#) such as honeysuckles have similar concerns (72).
- **Cultivate natural plants and use them to reduce lawn area.** ~~Conserve Lake County Openlands recommends reducing mowed lawn to less than 50% of our yards (73).~~ ~~The remaining space can be used to restore native plantings.~~ ~~Using native plantings for the remaining landscape area helps support pollinators and Lake Bluff's diverse natural habitat (74).~~
- **Practice better lawn care.** Raise your mower setting to three inches or higher to support deep roots and allow grass clippings to remain rather than bag them (75). Grass clippings decompose easily and restore nitrogen to the soil to reduce the need for fertilizer (75). If you choose to use lawn chemicals, try to minimize the amount you use and apply it in the higher areas of your yard. Watering will naturally deposit some of the treatment in low-lying areas.
- **Fertilize carefully.** In the Village's sustainability survey, one of the most important focus areas cited by respondents was ensuring pollutant-free runoff to Lake Michigan (1). One key source of runoff pollution is excess fertilizer use. Most lawns in Northern Illinois need a maximum of one

pound of nitrogen per 1,000 square feet, applied two to three times each year (76). Fertilizers containing phosphorus should be avoided except to establish new grass; other Great Lakes states ban phosphorus fertilizers under most circumstances (77).

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## Light Pollution

*Balance economic and security needs with our small-town character and charm.*

Light pollution is becoming the next “big” topic in sustainability, as recent research claims that 99% of the United States’ population lives under light polluted skies (78). “We know a great deal now about the impact of rising carbon dioxide,” says Dr. Steve Long with the University of Illinois. “But how extensive are the impacts of light pollution? We’re gambling with our future in what we’re doing to the environment” (79).

**PHOTO: CHICAGO FROM SPACE (80)**

### A Sustainable Lake Bluff...

- **Recognizes Chicagoland has a light pollution problem and does not contribute to it.**  
*The nighttime light pollution level in Lake Bluff is among the lowest near Chicago; only the Fox River area, in western Lake County, is comparable (78; 81). Even so, the Milky Way is only usually visible when looking directly up in the summertime (82). Because Lake Bluff is located so close to Chicago, this situation is unlikely to change absent larger shifts in the region.*
- **Uses lighting to preserve our historic character and small-town charm.**  
*In the Village’s 2017 Community Survey, the second (tied) most commonly cited issue considered the “most important” by respondents was preserving the Village’s character and small-town image (48). Lighting practices are an essential part of our character and sense of place.*
- **Reduces energy usage spent on unnecessary nighttime lighting.**  
*Lighting less, and using light efficient fixtures, reduces energy consumption. About 16% of total U.S. electricity usage is for lighting, and about 5% is for outdoor lighting (83). The three biggest outdoor uses include parking lots, roadway lighting, and building exteriors (83).*
- **Stops lighting from disrupting wildlife habitats.**  
*Studies show artificial light interferes with insects, plant maturity, birds, bats, and pollination (79).*

### What We Will Do

- ✓ **Street lighting is minimized, and public facilities are thoughtfully lit to minimize the impact upon adjacent residences.**
- LP-1 **Provide information about the [LEED-ND Light Pollution Reduction standard](#) to applicants for commercial site plan review (84).**
- LP-2 **Provide for the Architectural Board of Review to consider LEED-ND lighting standards when evaluating commercial site plans.**
- LP-3 **Consider recommendation of a [major zoning code amendment](#) that restricts harmful and excessive lighting (85).**

## What You Can Do

- Add a timer, light sensor, or motion sensor to exterior lights **to reduce their operating time.**
- **Minimize architectural uplighting** that sends light directly into the sky.
- When next replacing light fixtures or lightbulbs, **select dimmer bulbs that cast yellow light.** Color temperatures below 3000K (more yellow than white) are less likely to disrupt wildlife.
- **[INSERT DIAGRAM(S) #1]** Choose “**full cutoff**” fixtures that are shielded from sending light upwards, or add shields to existing fixtures. No light should be emitted above the plane of the fixture relative to the ground. (86)

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## Bicycle and Pedestrian Transportation

*Promote transportation methods that impose lesser impact on our environment, promote our health, and improve our recreational opportunities and quality of life.*

Lake Bluff is home to three major bicycle and pedestrian trails, including the Robert McClory Trail, the Skokie Valley Trail, and the North Shore Trail. Planned improvements include a northern extension of the Skokie Valley Trail (87). These trails facilitate intercity travel and connect most Lake Bluff residents to shopping and dining opportunities. In addition to walking and bicycling, Lake Bluff has a Metra station with direct service to downtown Chicago, which about 12% of residents use to commute (88). In total, just over one-quarter of Lake Bluff residents commute by means other than driving (88). In Lake Bluff, the average household travels slightly less vehicle miles annually than a comparable Lake County household and transportation accounts for about 16% of Lake Bluff's total carbon emissions (16).

### A Sustainable Lake Bluff...

- **Continues to build on its bicycle and pedestrian successes.**  
*Over half of the respondents to the Village's sustainability survey say they are bothered by people driving places that are close enough to walk, and about 45% of respondents say they often ride their bicycle on the Village's bicycle trails (1). Just over a third say they commonly walk or bike to eat, shop, or do errands (1).*
- **Focuses on youth mobility and opportunities.**  
*While almost half of all children walked or bicycled to school in 1969, about 13% did so in 2009 (89). 2018 surveys of Lake Bluff School District #65 families found that very few students walked or rode their bicycle to Lake Bluff Elementary, despite almost half of respondents reporting that they lived less than a 10-minute drive from the school (90). At Lake Bluff Middle School, about one-third of students walked or biked from school (90). Bicycle and pedestrian infrastructure improvements targeted to benefit students are associated with an 18% increase in children's use of these modes of transportation (91).*
- **Improves community health through walking and bicycling.**  
*Scientific studies routinely find that these active transportation modes yield health benefits. Commuters report that walking and bicycling are the least stressful ways of commuting and use of these modes correlates to lower rates of obesity, diabetes, and hypertension (92).*

### What We Will Do

- ✓ **Compact, walkable areas support walking and bicycling by making these modes a viable connection to destinations.**
  - ✓ **Regional trail linkages encourage recreational bicycling, walking, and travel beyond Village borders.**
- BP-1 Adopt a [bicycle and pedestrian plan](#) that identifies levels of service, gaps in pedestrian and bicycle networks, and barriers to active transportation; and proposes solutions that improve connectivity for non-motorized transportation users (93).

- BP-2** Continue to **incorporate bicycle and pedestrian specific improvements** in the Village's Capital Improvement Program, especially in conjunction with road reconstruction projects ([e.g. Complete Streets](#))(94).
- BP-3** Consider pursuing designation as a [Bicycle Friendly Community](#) or as a [Walk Friendly Community](#) (95),(96).
- BP-4** Provide **bicycle parking** at municipal facilities, in business districts, and at key public destinations. [Design public bicycle parking to meet professional standards for number, location, and type](#) (97).
- BP-5** Consider encouraging or requiring **commercial bicycle parking** just as automobile parking is required. Review [bicycle parking standards](#) as part of commercial site plan review (98).
- BP-6** Install **free bicycle repair station or air pumps** at high traffic locations, such as at regional trail intersections or at the train station.
- BP-7** Enforce ordinances that eliminate **vegetative growth encroaching upon sidewalks and trails**. Maintain Village rights-of-way to the same standard.
- BP-8** Continue to pursue **ADA retrofit improvements** to existing sidewalks, especially construction of sidewalk ramps with warning surfaces at intersections.
- BP-9** **Partner with schools** to promote walking and bicycling to and from school. Explore partnerships to teach students about safety.

## What You Can Do

- **Ride your bike!** The best way you can help demonstrate the need for bicycle facilities is to show that Lake Bluff's residents and customers need and expect them in their daily lives. The next time you go shopping, take an extra few minutes to ride one of Lake Bluff's trails instead of driving. If you are a parent of a school aged child, give special consideration to walking or biking with them to school.
- **Be visible at night.** If you are running or bicycling outside, wear reflective clothing and lights. It's the law for bicyclists, and it makes it more likely that other road users will see you.
- **Keep your sidewalk clear.** Overgrown plants blocking sidewalks require users to walk in grassy medians and streets. Persons with disabilities may not be able to navigate around these obstacles at all. You can trim back encroaching trees and bushes to eliminate this problem.
- **Practice the "Dutch Reach" when you park on the street.** **[DIAGRAM]** One of the biggest threats to bicyclists is a parked car opening a door directly in their travel path. An effective way to reduce this risk as a driver is to always open your car door with your right (far) hand. Turning your body to reach the handle means that you'll be looking directly at any approaching bicyclist through your windows. (99)

## Appendix A: Action Steps (Priority and Difficulty)

Summary		Difficulty			
		Low	Medium	High	
Priority	Low	3	3	2	8
	Medium	8	5	6	19
	High	5	5	5	15
		16	13	13	42

#	Step	Priority	Difficulty
<b>(SR) Solid Waste Management and Recycling.</b> Achieve recycling rates over 60% through a combination of waste reduction, materials reuse, and active promotion and expansion of recycling.			
SR-1	Conclude the SWALCO study of commercial recycling. At the study's conclusion, choose either to provide Village commercial trash and recycling service via franchise, or partner with private haulers and businesses to improve recycling rates.	High	Medium
SR-2	Add recycling containers in public realm spaces, with a goal of providing one recycling container adjacent to each public trash can. Consider requiring privately maintained street recycling containers to be provided where trash containers are provided and review these arrangements during commercial site plan reviews. Label public trash cans as "Landfill" prominently to encourage thoughtful personal waste habits.	High	Low
SR-3	Explore how to monitor and incentivize commercial sustainable business practices, especially for businesses required to seek a special use permit or other zoning relief to operate.	Low	High
SR-4	Monitor the use and effectiveness of the Village's existing recycling policies and publish a report annually on their success.	Medium	Low
SR-5	Proactively and regularly educate residents on Village programs and self-help opportunities to better manage waste. Use communications, signage, event outreach, and Village business practices to reach residents continually.	High	Low
SR-6	Work to reduce the Village's paper consumption by improving electronic notifications and billing, eliminating paper workflows, and encouraging the use of recyclable products for public events.	Medium	Medium
SR-7	Support and promote "Bring Your Own Bag" efforts by retailers and in the community, as well as other programs that promote the use of recyclable bags and discourage single-use waste. <u>Monitor State legislative action that would impose a fee for single-use plastic bags.</u>	Medium	Low

<b>SR-8</b>	Partner with schools to educate students about the importance of recycling and conduct programs such as "Waste Wednesday," where students try to reduce their waste footprint. Celebrate the success of school recycling programs in the report contemplated by SR-4.	<b>Medium</b>	<b>Low</b>
<b>(EC) Energy Conservation.</b> Leverage improvements in energy efficiency and alternative energy to reduce Lake Bluff's single largest source of carbon emissions.			
<b>EC-1</b>	Consider designation as a SolSmart community to demonstrate our commitment to solar development.	<b>Medium</b>	<b>Medium</b>
<b>EC-2</b>	Analyze the installation of a model renewable solar energy system at a municipal facility; consider implementation based on projected return-on-investment from incentives and energy savings.	<b>Medium</b>	<b>High</b>
<b>EC-3</b>	In lieu of regulation, explore how to monitor and incentivize commercial use of green technologies, such as renewable energy or sustainable building materials. Consider aligning programs to rating systems such as LEED or Energy Star.	<b>Low</b>	<b>High</b>
<b>EC-4</b>	Consider an optional program that allows residents to participate in the wholesale purchase of electricity from 100% renewable sources if Village-wide electrical aggregation once again becomes economical.	<b>Low</b>	<b>Medium</b>
<b>EC-5</b>	Partner with Lake Bluff School District #65 and Lake Forest High School to reduce vehicular idling through education and outreach. Partner with community destinations to reduce vehicular idling.	<b>High</b>	<b>Medium</b>
<b>EC-6</b>	Offer a plug-in hybrid charging station at the Metra Parking Lot and consider installation in other areas.	<b>Low</b>	<b>Low</b>
<b>(WC) Water Conservation.</b> Continue to reduce per capita usage of Lake Michigan water.			
<b>WC-1</b>	Continue to investigate and seek solutions to system water loss.	<b>High</b>	<b>High</b>
<b>WC-2</b>	Provide benchmarking information and tips to residents on their water bills that help residents compare their usage with neighbors.	<b>Low</b>	<b>Medium</b>
<b>WC-3</b>	Consider tiered rate structures that incentivize conservation by charging more per gallon to more intense users of the Village's potable water.	<b>Medium</b>	<b>High</b>
<b>WC-4</b>	Review lawn irrigation practices in the Village; communicate information on conservation practices (e.g. times of day, moisture sensors) and consider other regulatory steps.	<b>Low</b>	<b>Low</b>

<b>(SW) Stormwater Solutions.</b> Become more resilient to natural hazards and our changing climate by implementing professional stormwater management practices that incorporate natural features.			
<b>SW-1</b>	Provide effective public information on stormwater solutions to equip homeowners to protect their property from flooding and damage.	<b>High</b>	<b>Low</b>
<b>SW-2</b>	Support the installation of <del>stormwater Best Management Practices</del> <u>green infrastructure (e.g. Best Management Practices)</u> on private property. Consider <u>establishing</u> programs that would provide or reimburse homeowner equipment (e.g. rain barrels).	<b>Medium</b>	<b>Low</b>
<b>SW-3</b>	Lead by example by incorporating green <del>Best Management Practices</del> <u>infrastructure</u> in public facility and street improvements.	<b>High</b>	<b>High</b>
<b>SW-4</b>	Enable and provide guidance on the appropriate use of permeable pavement solutions in development. Where impervious surface limits apply, consider providing a realistic offset to stormwater calculations where permeable solutions are used.	<b>Medium</b>	<b>Medium</b>
<b>SW-5</b>	Explore public recognition programs, including the establishment of a local recognition program, for homeowners that implement <del>stormwater best practices</del> <u>green infrastructure</u> such as native plantings, grading, and swales (see NS-6).	<b>Medium</b>	<b>High</b>
<b>(NS) Natural Spaces.</b> Restore and protect Lake Bluff's valuable, unique, and native natural resources.			
<b>NS-1</b>	<del>Publish a list of recommended native and adapted species which support the Village's natural beauty, increase and which will continue, through diversity, to increase resilience against plant disease outbreaks, and support pollinator populations. Lead by example by using these on municipal properties and in rights-of-way. Evaluate their application in site plan review of commercial landscapes.</del> Publish a list of recommended native and adapted species which support the Village's natural beauty and which will continue, through diversity, to increase resilience against plant disease outbreaks. Lead by example by using these on municipal properties and in rights-of-way. Evaluate their application in site plan review of commercial landscapes.	<b>High</b>	<b>Medium</b>
<b>NS-2</b>	Continue to lead in ravine maintenance, protection, and restoration. Pursue partnerships with outside agencies and private landowners that preserve ravines. <u>Consider zoning changes to shift future development further away from vulnerable table land.</u>	<b>High</b>	<b>High</b>
<b>NS-3</b>	Allocate resources for collaborations by the Village and community partners that remove invasive species.	<b>Medium</b>	<b>Medium</b>
<b>NS-4</b>	Provide interpretive signage for restoration and natural resource projects that raise awareness and convey importance.	<b>Medium</b>	<b>Low</b>

<b>NS-5</b>	Educate residents on managing lawns and gardens using natural products and low-impact practices that <u>reduce usage of pesticides, fertilizers, and other chemical lawn treatments</u> reduce fertilizer and pesticide use.	<b>Medium</b>	<b>Low</b>
<b>NS-6</b>	Promote recognition programs for homeowners such as <u>Conserve Lake County Openlands</u> 's Conservation@Home certification and the Million Pollinator Garden Challenge. Explore the establishment of a local recognition program (see SW-5).	<b>Low</b>	<b>Low</b>
<b>NS-7</b>	Pursue creation of neighborhood gardens that utilize open land and allow residents to grow food cooperatively. Continue thoughtful pilot programs that support urban agriculture, <u>such as the keeping of chickens and bees</u> , at home.	<b>Low</b>	<b>Medium</b>
<b>(LP) Light Pollution.</b> Balance economic and security needs with our small-town character and charm.			
<b>LP-1</b>	Provide information about the LEED-ND Light Pollution Reduction standard to applicants for commercial site plan review.	<b>Medium</b>	<b>Low</b>
<b>LP-2</b>	Provide for the Architectural Board of Review to consider LEED-ND lighting standards when evaluating commercial site plans.	<b>Medium</b>	<b>Medium</b>
<b>LP-3</b>	Consider recommendation of a <u>major</u> zoning code amendment that restricts harmful and excessive lighting (75).	<b>High</b>	<b>Medium</b>
<b>(BP) Bicycle and Pedestrian Transportation.</b> Promote transportation methods that impose lesser impact on our environment, promote our health, and improve our recreational opportunities and quality of life.			
<b>BP-1</b>	Adopt a bicycle and pedestrian plan that identifies levels of service, gaps in pedestrian and bicycle networks, and barriers to active transportation; and proposes solutions that improve connectivity for non-motorized transportation users.	<b>High</b>	<b>High</b>
<b>BP-2</b>	Continue to incorporate bicycle and pedestrian specific improvements in the Village's Capital Improvement Program, especially in conjunction with road reconstruction projects (e.g. Complete Streets).	<b>High</b>	<b>Medium</b>
<b>BP-3</b>	Consider pursuing designation as a Bicycle Friendly Community or as a Walk Friendly Community.	<b>Medium</b>	<b>High</b>
<b>BP-4</b>	Provide bicycle parking at municipal facilities, in business districts, and at key public destinations. Design public bicycle parking to meet professional standards for number, location, and type.	<b>High</b>	<b>Low</b>
<b>BP-5</b>	Consider encouraging or requiring commercial bicycle parking just as automobile parking is required. Review bicycle parking standards as part of commercial site plan review.	<b>Medium</b>	<b>High</b>

<b>BP-6</b>	Install free bicycle repair station or air pumps at high traffic locations, such as at regional trail intersections or at the train station.	<b>Medium</b>	<b>Low</b>
<b>BP-7</b>	Enforce ordinances that eliminate vegetative growth encroaching upon sidewalks and trails. Maintain Village rights-of-way to the same standard.	<b>High</b>	<b>High</b>
<b>BP-8</b>	Continue to pursue ADA retrofit improvements to existing sidewalks, especially construction of sidewalk ramps with warning surfaces at intersections.	<b>Medium</b>	<b>High</b>
<b>BP-9</b>	Partner with schools to promote walking and bicycling to and from school. Explore partnerships to teach students about safety.	<b>High</b>	<b>Low</b>

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