June 10, 2024

To: Members of the City of Appleton Municipal Services Committee

- Alderperson Denise Fenton - Chair
- Alderperson Chad Doran
- Alderperson Vered Meltzer
- Alderperson William Siebers
- Alderperson Brad Firkus

cc: Alderperson Chris Croat and Alderperson Patrick Hayden

***From:* Nancy J. Jones**, 1125 N. Briarcliff Dr., Appleton 54915

Re: Repeal of No Mow May language in Municipal Code 12.58

Good Afternoon, I am here to speak about the resolution to remove the No Mow May language from the Municipal Code and offer a suggestion for your consideration. I want to begin by acknowledging the many examples of good environmental stewardship undertaken by the City of Appleton and thanking the Council and staff for their efforts.

My husband and I were early adopters of No Mow May out of concern for the natural environment, the loss of pollinators and after becoming aware of the sharp decline in bird populations. Our property includes a ravine that is part of the natural watershed of the Fox River.

I'd like to share with you **what No Mow May has meant on our property.**

We do not use herbicides or pesticides in our yard, but we **do actively control weeds**. We hand dig dandelions and never allow weeds to go to seed. By delaying the start of mowing for a few weeks, we have actually learned more about both native and invasive plants growing in the lawn areas of our yard. As a result, we now more actively work to eliminate more invasives like Black Medic, Creeping Charlie, and White Clover. They are much easier to identify in May when not yet mowed. We have also dug many Common Buckthorn seedlings that have germinated or been mowed the previous season.

At the same time, **we've become aware of more native plants that thrive despite mowing and foot traffic.** The rabbits munching our state flower, the Common Violet, in the lawn is much preferred to them chewing down the plants we started from seed for the vegetable garden or the native perennials in the flower garden beds that support pollinators throughout the year.

Thanks to No Mow May, I've discovered several of the **native species in our managed landscape beds "volunteer" in the lawn areas**, and I have transplanted dozens from the grassy areas to beds or potted them to share with family members and neighbors. One in particular, the Calico Aster, is considered a keystone plant for our eco-region.

Our household uses a mulching mower to recycle nutrients and preserve moisture. Since we do not use artificial fertilizer, **our lawn does not get excessively long in May.** The grass gets the longest on a narrow strip of the east side of our yard where the fertilizer our neighbor spreads spills onto our property . Our multi-species lawn areas have stayed much greener than surrounding lawns during periods of drought in recent years.

Now let's consider, the effects of lawns and mowing in our neighborhood.

As we walk in our neighborhood, which unfortunately has no sidewalks, we **observe fertilizer and pesticide applications in the street as a regular occurrence** and often by the commercial lawn services. These nutrients and toxic chemicals are washing into the storm sewer and **into the Fox River.**

We also see that many residents mow in a manner which sends the **grass clippings into the street** adding more problems for water quality.

Then there is the noise pollution. There are lawn services I can identify in my neighborhood by their volume level. Perhaps no one piece of their arsenal of power tools violates the city's noise nuisance ordinance, but the lawn services run multiple pieces of equipment simultaneously, and the noise is disturbing and disruptive.

Neighbors who fertilize and water their lawns are mowing 2-3 times per week. The soundtrack of the suburbs has become a constant roar. We have come to time our walks to coincide with the need to escape incredible din of gas-powered lawn mowers and leaf blowers, which are in the 80-85 decibel level range even if used one at a time. according to a chart from the Center for Disease Control and Prevention. Our city's noise ordinance caps noise at 70 decibels in residential areas.

A growing number of communities have moved to prohibit the use of gas-powered leaf blowers due to their negative health impacts from both high emissions and dangerous level of noise. I encourage the City of Appleton to get involved with Quiet Communities organization. https://www.quietcommunities.org/membership

I understand that the study cited as part of the basis for the 2022 code changes was later criticized; however, there are 5 other studies referenced on the Bee City USA No Mow May webpage hosted by the Xerces Society for Invertebrate conservation (See attached). I agree with the resolution, that No Mow May does not accomplish pollinator support with monoculture lawns. I understand that some Council members may feel they received information they no longer completely trust. But let's zoom out and realize how terrible the information that a carpet-like lawn is an ideal landscape is! Monoculture lawns waste tremendous amounts s of energy, water, time and money and inflict steep costs to the environment in the way of air, water and noise pollution.

Please take some time to read the article by Doug Tallamy I have brought for your reference titled , "4 Universal Landscape Goals."

My questions for the authors of the resolution and for the committee members as you take up this resolution include:

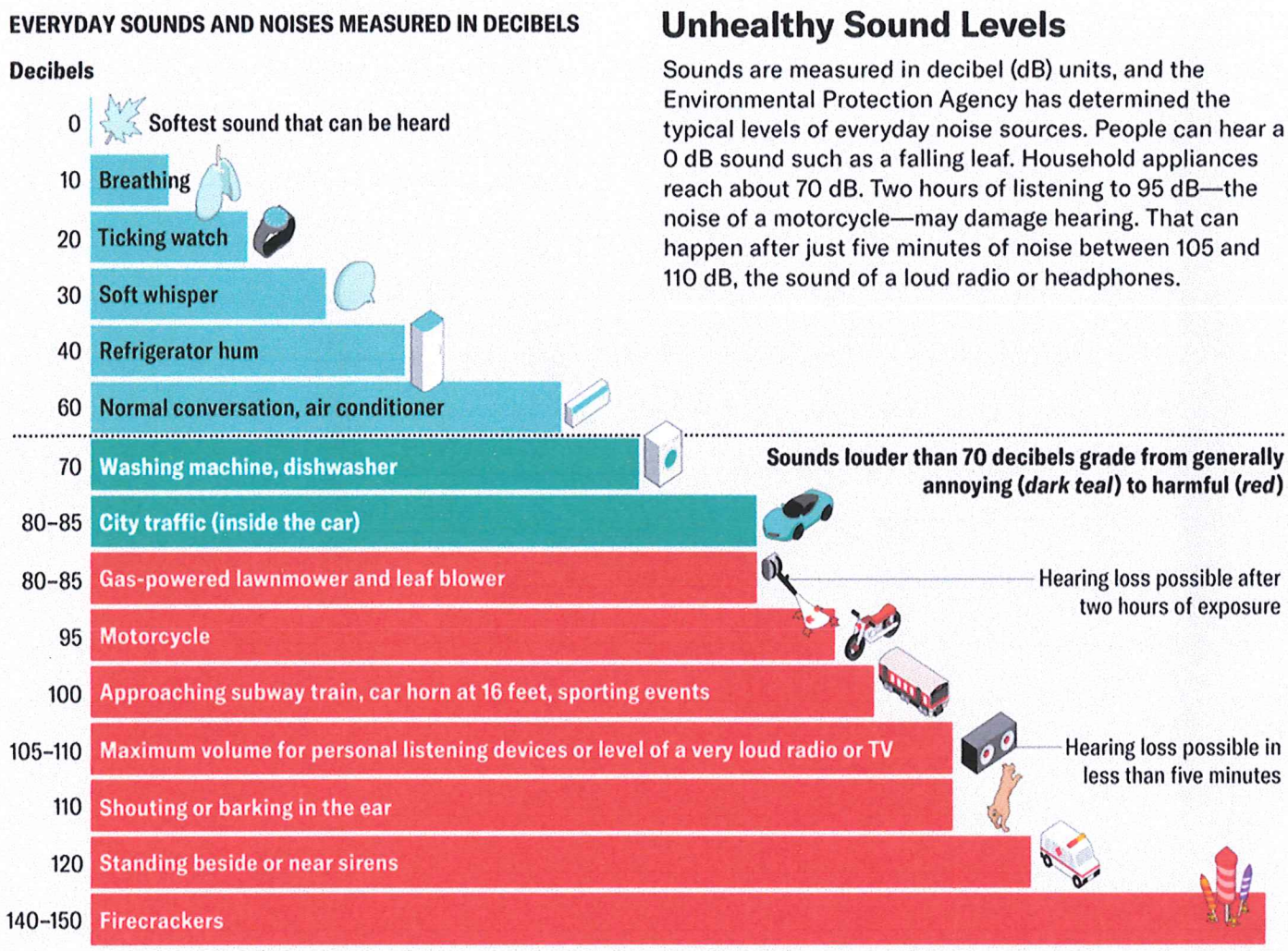
1. How will our city address air, water and noise pollution and the loss of pollinators and birds in a more comprehensive way?
2. Will the City of Appleton get more serious about the detrimental health effects of our increasingly noisy community and lawn care as a huge contributor to noise pollution?
3. With Appleton having both Bee CityUSA and Bird City USA designations, could the City provide better guidance and resources to community members who would like to support pollinators in spring and throughout the year?

I suggest refinement of the code and/or published guidance that instructs residents that No Now May should not mean letting your dandelions go to seed or letting the burdock get firmly established. (Burdock is specifically mentioned as a noxious weed in the code and added to the list of noxious weed species from the state statute, but I see it all over the neighborhood.)

Could the City Guide have a regular feature about the invasive species specific to our area, like Dame's Rocket, and effective strategies for their elimination?

I encourage you to move to deny or, at the very least, delay this resolution, and urge a more proactive approach that encourages responsible No Mow or Low Mow May practices and gives our city time to devise strategies to engage residents in opportunities to become better caretakers of our shared environment.

Thank you.



Unhealthy Sound Levels

Sounds are measured in decibel (dB) units, and the Environmental Protection Agency has determined the typical levels of everyday noise sources. People can hear a 0 dB sound such as a falling leaf. Household appliances reach about 70 dB. Two hours of listening to 95 dB—the noise of a motorcycle—may damage hearing. That can happen after just five minutes of noise between 105 and 110 dB, the sound of a loud radio or headphones.

beecityusa.org

Summaries of Published Studies of Conservation Benefits of Reduced Mowing - Bee City USA

3–4 minutes

Larson et al (2014): Pollinators were recorded visiting dandelions (*Taraxacum officinale*) and white clover (*Trifolium repens*) in urban and suburban lawns in central Kentucky. The primary study period was May and early June, though some surveys of white clover were done in August. In total, 26 bee species were recorded. The dandelions had 20 species, of which nine were early emerging mining bees (*Andrena*, also called tickle bees) and the clover had 12. For butterflies, dandelions were visited by one species and the clover by six. The authors highlight the risk from insecticides, and note that "awareness of the diverse pollinator assemblages of flowering lawn weeds" might encourage a move toward more pollinator-friendly and sustainable gardening.

Lerman et al (2018): This study explored whether different lawn mowing frequencies (every week, every two weeks, and every three weeks) influenced bee abundance and diversity in suburban yards in Massachusetts. Mowing every three weeks resulted in more than double the number of flowers available in lawns, and increased bee diversity—yet lowered overall bee abundance versus the every-two-weeks strategy. Lerman and her colleagues documented a staggering 93 species of bees, with supplemental observations bringing the total number to 111 bee species—nearly a quarter of all bee species native to the area!

Proske et al (2022): This paper was a meta-analysis that looked at results of many published and unpublished studies from Europe and North America. They found a significant increase in both abundance and species richness of butterflies and bees, as well as other insect groups (grasshoppers, crickets, and true bugs) in less-frequently mowed lawns. They also found a decrease in abundance of centipedes, millipedes, spiders, and ticks and mites, and noted, "manicured lawns disproportionately favor the abundance of 'pest' species." For greatest benefit, the authors recommended that grass and meadows should only be mowed once or twice a year, and the first mowing is delayed until July—which may be far later and less frequent that most people are comfortable with! However, they also found that the size of the site had no influence on the benefits of reduced mowing. Even small patches had greater diversity.

Wastian et al (2016): By comparing intensely mowed lawns (mowed 12 times per year) with meadows under reduced maintenance (mowed only twice per year), the authors found that the number of bee species visiting the intensely mowed lawns was significantly lower. Of the 43 species of bees recorded, only 22 were on intensely mowed lawns, and of the six at-risk species observed, none were on frequently mowed lawns.

Watson et al (2019): Another meta-analysis of numerous studies from North America and Europe that looked at the effects of mowing on various insect groups. The conclusions were that increased mowing intensity resulted in a significant negative effect on plant diversity and insect diversity, and a moderate increase in pest abundance. It also found that by reducing mowing frequency from 15 to 10 times per year, park managers may have cost savings of up to 36%.

homegrownnationalpark.org

4 Universal Landscape Goals - By Doug Tallamy

There are four ecological functions every landscape must perform if we are to achieve a sustainable relationship with the natural world that supports us (and continuing to insist on landscapes that do not sustain mother nature is not and has never been a realistic option). It's really very simple; our landscapes must do the things that enable ecosystems to produce the life support we and every other species requires.

Four Landscape Ecological Goals

1. They must support a diverse community of pollinators throughout the growing season.
2. They must provide energy for the local food web.
3. They must manage the watershed in which they lie.
4. They must remove carbon from the atmosphere where it is wreaking havoc on the earth's climate.

How well a landscape accomplishes these goals depends on how well we, as landscape managers, choose and deploy the plants on our landscapes.

*Lawns **fail** at these 4 goals:*

If we plant most or all of our property in lawn, none of these goals will be met. More often than not, lawn degrades the local watershed by discouraging infiltration, facilitating stormwater runoff, and adding nitrogen, phosphorous, herbicides, and insecticides to the nearest stream or river. Today's cultural standard for lawn supports no pollinators and does not nourish the insects that enable birds, reptiles, amphibians and, many mammals to reproduce. And when it comes to carbon capture, turf grass is our worst plant choice.

Yes, lawn grasses do build their tissues out of carbon they have pulled from the atmosphere, but every time we mow the lawn, we release that carbon back into the air. Grass roots, like the roots of other plants, do leak some carbon into the soil, but grass roots are very short, and almost any other plant species deposits more carbon into surrounding soils than does grass. Finally, every time we mow, we belch carbon from fossil fuels into the atmosphere.

*Native Plants **succeed** at these 4 goals:*

We can help our yards meet their ecological responsibilities by planting the plants that are good at supporting pollinators, good at sharing some of the energy they have harnessed from the sun with the local animals that run our ecosystems, good at building their tissues out of carbon and holding it within their structures, out of harm's way, for decades or even centuries; and good at producing glomalin on root hairs, a carbon-based structure that deposits so much carbon in soil that it becomes brown or black. We can also choose plants with large canopies that soften the impact of pounding rain, and that support large root systems that encourage rainwater infiltration and thus hold tons of water on site after a storm event.

Transforming our yards into these ecological gold mines is a process, one that can unfold over months, years, or even decades. Every time we plant a native perennial that nourishes specialist bees, we have helped all local pollinators, for generalist bees can use those plants as well. Every time we add a native oak, willow, cherry, birch, cottonwood, alder, maple, etc. to our yard, we have reduced the ecological dead zone we call lawn and increased the ability of our yard to support breeding birds by supplying the host plants for the caterpillars on which those birds rely. Moreover, such plantings have vastly improved our yard's watershed management and carbon sequestration potential.

We don't need exact measures to know we are moving in the right direction. Simple estimates can help us evaluate the progress we have made and the amount of life support we have enabled our local ecosystem to produce, not just for us and the other species in our yards, but for all of our neighbors as well. How much lawn have we eliminated? How many trees have we added? How many new flowerbeds or simply beds mulched with leaf litter have we built? How many invasive plants have we identified on our property and targeted for removal? How many birds, butterflies, and bees have we seen taking up residence in our yards? These are all measures of success and noting any of them will motivate us to do more.

The path to sustainability lies along a continuum, with low (or no) ecological function at one end and a vibrant, ecological machine churning out ecosystem services every minute of every day at the other. Every time you take action, your landscape moves closer to becoming a positive ecological force rather than a negative one. Our current landscaping paradigm has been making withdrawals from the ecological bank account that supports us for far too long. By helping our properties reach the four ecological goals described above, we can finally start making life-saving deposits.