

THE NOISE ON GAS LEAF BLOWER REGULATION

Municipalities transforming landscaping practices

Nancy Adams, Mayor, Maplewood

Lori Jenssen, Executive Director New Jersey Nursery & Landscaping Association

Lois Kraus, Founder Advocates Transforming Landscaping in New Jersey (ATL-NJ)

Richard McCoy, Owner/President Richard A. McCoy Horticultural Services /
American Green Zone Alliance (AGZA)

Hal Strelnick, MD, Albert Einstein College of Medicine

Lisa Swain, Assemblywoman, District 38

May 4, 2024



Why are Gas Leaf Blowers an Issue?

Lois Kraus

Co-Founder of Advocates Transforming Landscaping in New Jersey (ATL-NJ)
Westfield Green Team



Who we are



- Advocates for Transforming Landscaping in New Jersey (ATL-NJ) is a network of volunteers cooperating to reduce the use of gas leaf blowers (GLBs) and other 2-stroke landscaping equipment in our communities
 - Several members are on local Environmental Commissions, Green Teams, or environmental advocacy groups
- The group started in January 2021 with 12 members; now 49 members across 33 municipalities:

- | | | | |
|--------------------|-----------------|----------------|-------------|
| • Berkeley Heights | Chatham Borough | Cranford | Edison |
| • Fair Lawn | Franklin Lakes | Glen Ridge | Glen Rock |
| • Haddonfield | Highland Park | Hillsdale | Leonia |
| • Livingston | Madison | Maplewood | Margate |
| • Metuchen | Millburn | Monmouth Beach | Montclair |
| • Morris Township | Morristown | Mountain Lakes | Oradell |
| • Princeton | Ridgewood | South Orange | Spring Lake |
| • Summit | Verona | Westfield | West Orange |
| • Wycoff | --and growing | | |

Why this issue?

- GLBs expose workers and the public to significant health risks while disrupting neighborhoods and damaging natural ecologies
- Overuse of GLBs is:
 - A public health issue
 - An environmental issue
 - A quality of life issue
 - A social justice issue
- GLBs are a unique problem
 - Highly polluting 2-stroke engines, *unlike* most lawn mowers (4-stroke)
 - High use levels every week, *unlike* other 2-stroke equipment
- Superior and cost-effective alternatives are readily available, contrary to (outdated) conventional wisdom

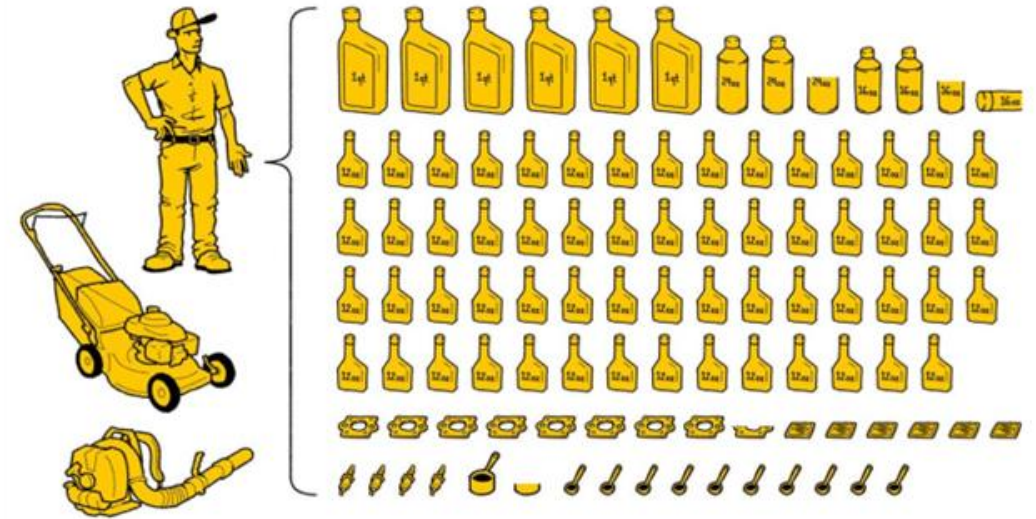


Hawthorn Avenue, Princeton | Credit: Anthony Lunn

GLBs damage natural habitats and environmental quality

- GLBs' pollutants produce acid rain and smog and change nutrient balances in coastal waters and river basins¹
- GLB use generates substantial amounts of toxic and solid waste, in addition to fuel and oil spillage
- “Leave no leaf behind” approaches disrupt natural cycles of nutrient replenishment, degrading soil health
- Removing leaf litter eliminates critical winter habitat for many pollinators and other beneficial insects

In addition to all the gas and oil burned and smog-forming emissions and greenhouse gasses created, each gas crew worker also dumps 50 bottles, cans, tubes, and parts into landfills every year. These leech residual toxic chemicals into the soil and water. Electric tools need almost no maintenance or parts, and therefore create almost no waste stream.



American Green Zone Alliance (AGZA)

¹Environmental Protection Agency, [Nitrogen Dioxide \(NO2\) Pollution](#) (website); Environmental Protection Agency, [Particulate Matter \(PM\) Pollution](#) (website).

Alternative equipment is readily available

- Over the last decade, a “battery revolution” has resulted in rapid gains in power, longevity, and cost-effectiveness of battery-electric equipment
- Major manufacturers like Stihl, Husqvarna, Ego, and others offer extensive lines of battery-electric, commercial-grade equipment
 - All of these have been certified as capable of performing full-time, commercial work by the American Green Zone Alliance (AGZA)
- Hundreds of companies around the country profitably offer zero-emissions, quiet landscaping services using battery-electric tools
- Upfront costs to invest in new equipment, plus batteries and chargers, are a hurdle, but overall operating costs are lower than for gas
 - Electric power costs 50-70% lower than gas power
 - Motors are much simpler, reducing maintenance costs



Richard A. McCoy Horticultural Services

Health Implications

Dr. Hal Strelnick, MD

Professor, [Department of Family & Social Medicine](#)
at Albert Einstein College of Medicine in the Bronx

Associate Dean for Community Engagement

Chief, Department of Family & Social Medicine's Division of Community Health

Principal Investigator, South Bronx Environmental Justice Partnership (funded by the NIH's National Institute of Environmental Sciences)



How hearing loss occurs.

Common noises can be loud.

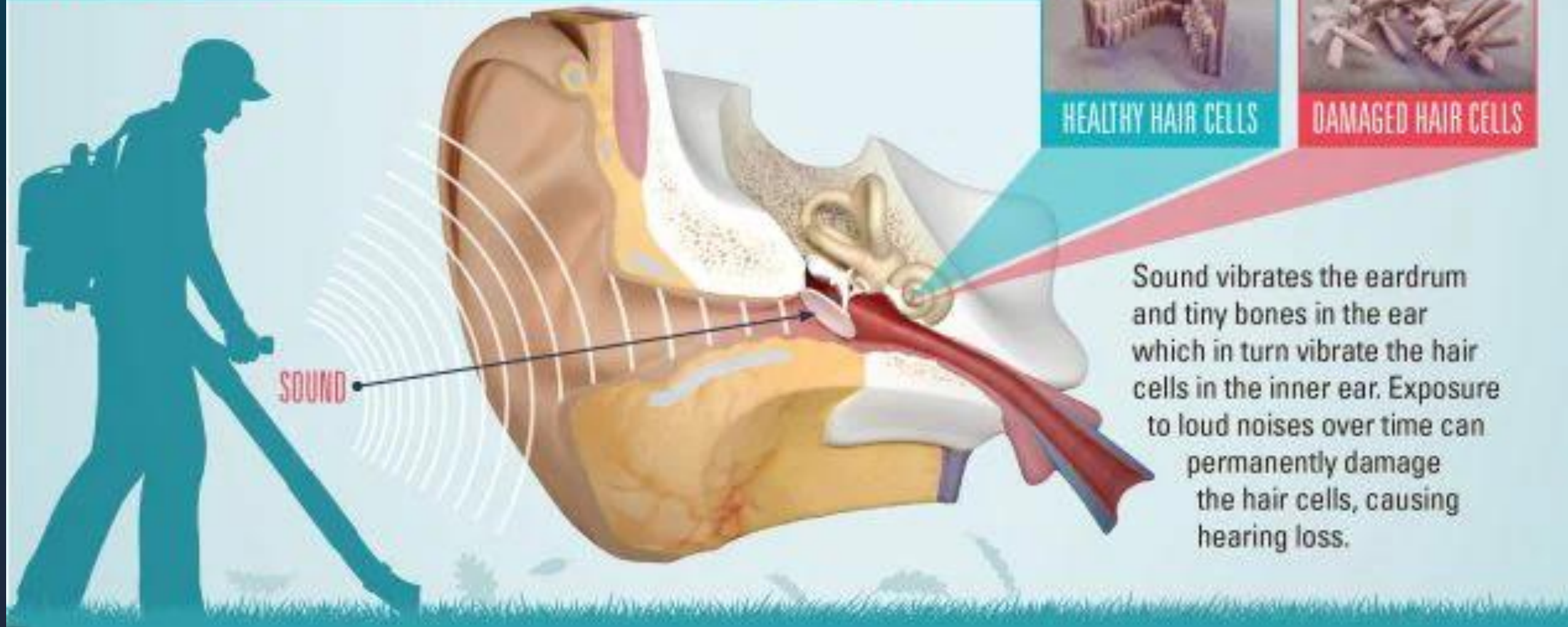


Gas-Powered Leaf Blowers
80-90 dB @ 50 ft

Level at operator's ears

Electric Leaf Blowers 60-70 dB

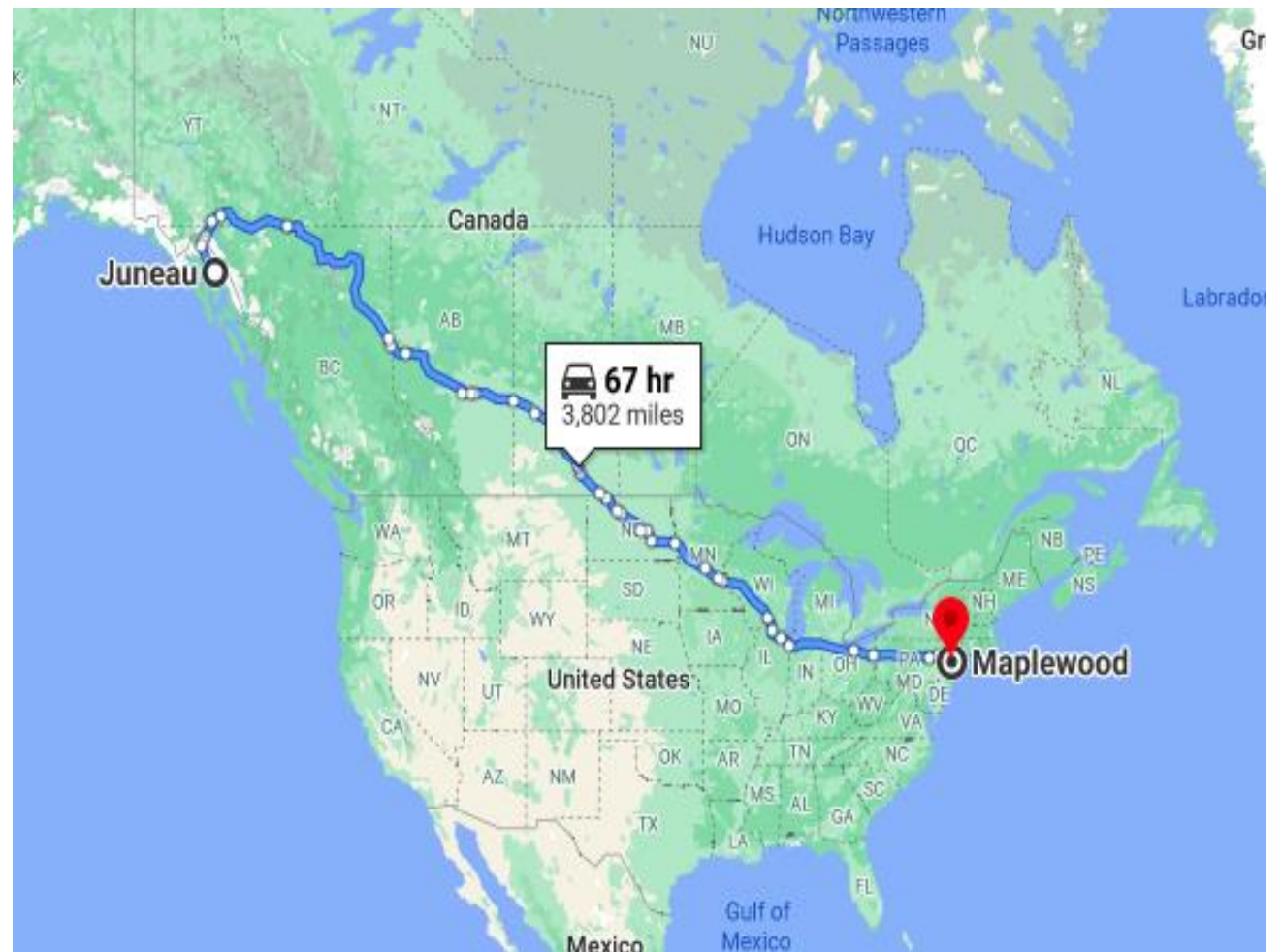
How noise causes permanent hearing damage.



Sound vibrates the eardrum and tiny bones in the ear which in turn vibrate the hair cells in the inner ear. Exposure to loud noises over time can permanently damage the hair cells, causing hearing loss.

Toxic Emissions from 2-Stroke Engines

- **Toxic exhaust from incomplete burning a combination of gasoline & oil includes:**
- **Poisonous Carbon Monoxide (CO)**
- **Asthma-causing, Ozone-forming chemicals (e.g., SO_x, NO_x)**
- **Cancer-causing hydrocarbons (e.g, benzene, etc.)**
- **Asthma-aggravating Particulate Matter**



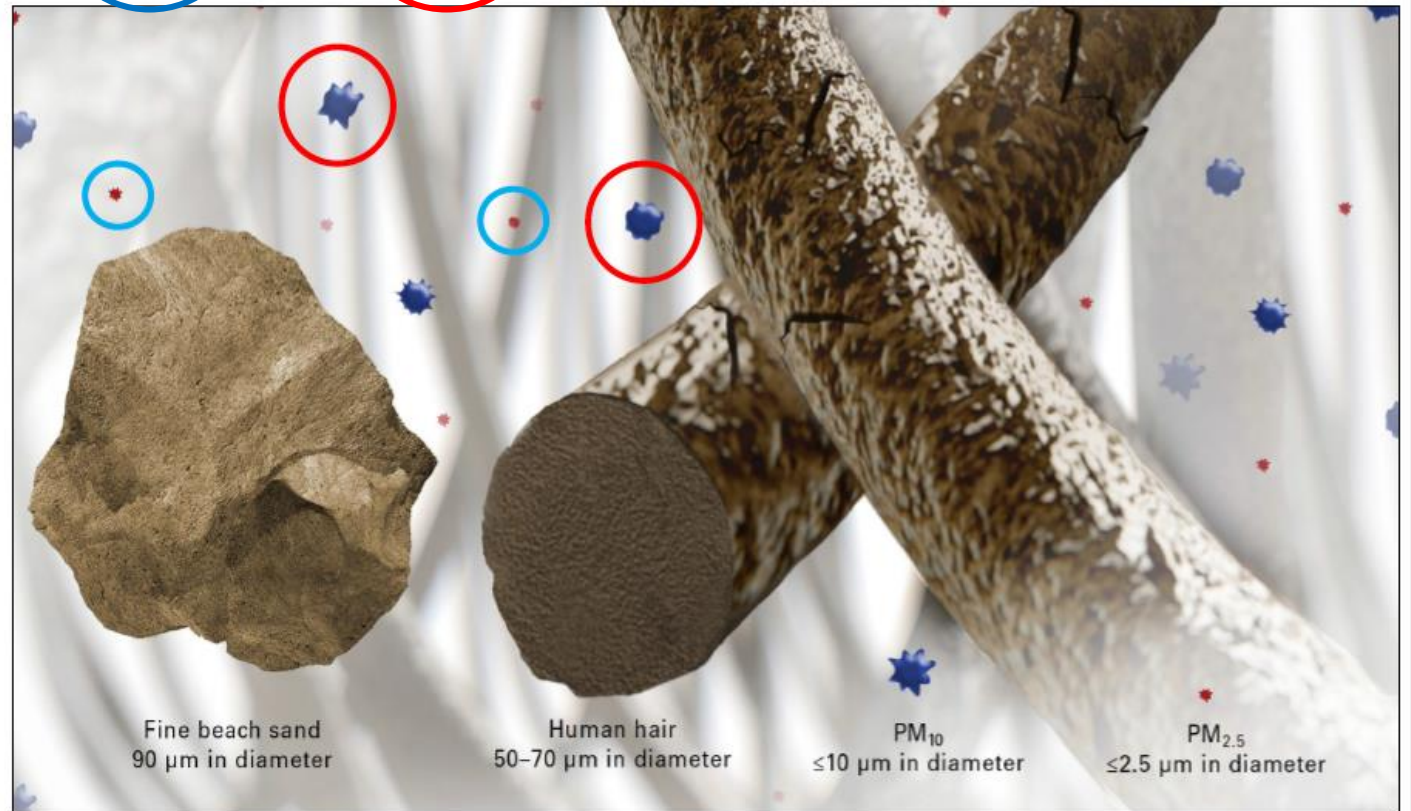
“Blow leaves from your lawn, or drive from Maplewood to Juneau, Alaska. Your choice.” *NYT* 2017

Particulate Matter

Particulates (PM_{2.5}) can be inhaled.

- Gas-powered leaf blowers **emit** particulates in their unique emissions.
- Gas & electric powered leaf blowers **spread** particulates from the ground into the air.

PM_{2.5} and PM₁₀



Maplewood - NJ's 1st "Quiet Community"

Nancy Adams

Maplewood Mayor

Board Member of Downtown New Jersey

Career Professional in Downtown Management & Revitalization

Received 1st Municipal Leadership Award from ANJEC

Member of Sustainable Maplewood Committee



Maplewood : Years in the Making

2016: Summer pilot restriction on the use of GLBs

Fall-Winter 2016-17: Subcommittee formed to research and interview several landscapers

2017: Passed ordinance for annual seasonal ban

Oct 2017: Full day seminar on the issue of GLBs incl environmental, medical issues, social justice, AGZA demo on commercial grade electric equipment

Maplewood: Years in the Making

2018-2022: Minor changes year to year on the restrictions

2022: Passed ordinance for full-year ban of GLBs beginning 1.1.23

2023: First full year of the ban. Reduced number of weeks for spring rake out and fall leaf pickup.

2024: Numbers from weight of leaves picked up in 2023 was reduced due to change in how maintenance was done

Issue Addressed

- Externalities
- Equal application of the law to homeowners and to contractors
- Golf Course
- Mow, trim, blow practice changes
- Transition of gas powered through attrition

Landscaping Professionals Transitioning to Electric



**LANDSCAPE PROFESSIONALS
TRANSITIONING TO ELECTRIC LEAF
BLOWERS**

New Jersey legislators have introduced several bills to address this problem

- **S217 (Smith – Chair, Environment and Energy)**

- Prohibits sale and use of gas leaf blowers in NJ
- ATL-NJ provided recommendations to Senator Smith's office in the fall of 2022 regarding phase-in timing, other two-stroke lawn maintenance equipment, permitted use dates, tax credits, and four-stroke blowers
- ATL-NJ will represent members when bill goes before the Environment and Energy Committee

- **A2319 (Swain – Chair, Appropriations)**

- BPU to establish rebate program for purchase of electric or battery operated GLBs
- ATL-NJ provided recommendations to Assemblywoman Swain's office in the summer of 2022 regarding expansion of the bill to include all zero-emissions lawn maintenance equipment, increased rebate amounts
- Asw Swain will participate in the 2024 Sustainable Jersey Summit moderated by ATL-NJ

Assemblywoman Lisa Swain, District 38

<https://drive.google.com/file/d/1gjAodINRywVOoxO91jW7ScqYd2rDtNm9/view?usp=sharing>



New Jersey Lessons Learned

- **Community outreach and education are essential**
 - Changing landscaping ideals and practices (residential / business) is complex
 - Tackle the issue in topically (Quality of Life, Health, Environmental)
- **Consider starting with your municipality**
 - Pilot e-lawn care through your Department of Public Works
 - Choose a small area with high exposure
- **Restrictions and regulations must target homeowners, businesses/landscapers and municipality equally and fairly**
 - Avoid lawsuits and the appearance of inequity
 - Avoid “No-Sunday” bans
- **Clarify up front any exceptions or carve-outs; as few as possible**
 - One-time vs. routine / Golf Courses
- **Self-reporting by residents has proved effective**
- **Be patient**