PUBLIC SCHOOLS of BROOKLINE

Brookline Climate and Sustainability Task Force: **Recommendations**

October 21, 2024
Policy Subcommittee Presentation

Climate and Sustainability Task Force: Background

- In May 2023, the School Committee issued a call for volunteers for a Climate/Sustainability Task Force
- The mandate of this Task Force is to:
  1. **Inventory town assets** (initiatives, organizations, activities, investments, funded positions) already working in this area, identifying those that PSB can partner with, leverage, or scale to achieve relevant objectives of the Sustainability Policy;
  2. **Issue recommendations for PSB actions** (such as further policies, coordination mechanisms, or investments) to achieve relevant objectives of the Sustainability Policy; and
  3. **Present these recommendations** to the School Committee and other interested stakeholders for possible action.

Group 2: Energy, Buildings, and Outdoor Spaces

The **Energy, Buildings, and Outdoor Spaces** group focused energy conservation and efficiency; renewable and alternative energy; electrification; high-performance buildings; green building standards; outdoor learning; and green schoolyards and recreational spaces.

Group participants

- **Christi Electris** - Co-founder and Executive Director of Croatan Institute
- **David Manor** - Director, Solartec
- **Matthew Yamatin** - Sustainability Program Director, Thermo Fisher Scientific

Group 2: Summary of Recommendations

Recommendation	Type of recommendation	Period of implementation	Expected outcome(s)
2.1. Expand PSB Sustainability Policy to require annual reporting of key performance indicators (e.g., EUI, fossil fuel free/zero emission progress)	Policy & human resource investment	Short term	Promote awareness of progress made by PSB as well as facilitate more informed engagement by students, teachers and the community.
2.2. Partner with local volunteer subject matter experts (e.g., Harvard)	Partnership	Short term	More desirable future-proofed outcomes aligned with leading best practices (e.g., PFAS free)
2.3. Formalize fossil fuel free / zero emission plan for PSB facilities	Plan	Short term	Transparency to financial resources required to achieve Sustainability Policy commitment

Recommendations

Recommendation	Type of recommendation	Period of implementation	Expected outcome(s)
2.4. Identify funding mechanism(s) and seek approval for financing the fossil fuel free / zero emissions plan	Financial investment	Medium term	Achieve Sustainability Policy commitment of of commitment to fossil fuel free / zero emissions Reducing cost inefficiencies from stop-start budgeting
2.5. Evaluate and select preferred purchasing approach for onsite solar projects (PPA vs capital)	Guidance statement	Short term	Streamline decision making for subsequent projects
2.6. Annual training/reminders for educators and staff on quick wins to reduce energy use (e.g., plug loads).	Human resource investment Curriculum	Short term	Reduced energy and water use in buildings will lower costs and provide minor EUI improvement

Recommendation 2.1: Annual Reporting of Climate and Energy KPIs

- **<u>Action</u>: Commit to reporting on key performance indicators** to communicate progress towards commitments laid out in the Sustainability Policy. For example, report current and historical EUIs for each school and for PSB.

  Reporting should be standardized, simple, and concise so students, staff, educators, parents, and the communicate can readily understand with specific knowledge of energy or climate topics.

- **<u>Timeline and Resourcing</u>**: Revise the policy for SY 25-26. Assign data collection and reporting responsibility to appropriate personnel.

- **<u>Outcomes</u>**: Standardized and simple communication of progress can be used by students and educators for classwork and for engaging the community on how school funding supports the Town's long-term commitments.

Dashboard from Parkway Schools in St. Louis.

Group 3: Food Service and Waste

The **Food Service and Waste** group focused on farm-to-school initiatives; zero waste/waste management; composting; school gardening; recycling and reuse; water use efficiency; and organic foods.

Participants

- **Deane Coady**, Solid Waste Advisory Committee member
- **Ezra Kleinbaum**, BHS senior, student leader
- **Amie Lindenboim**, Parent, HUD Enforcement Analyst
- **Christopher Mutty**, Town Meeting Member, Executive Director, Brookline Chamber of Commerce
- **Macari Allyn**, BHS junior
- **Aviv-Schwab-Jacobson**, BHS junior

Advisors

- **Sasha Palmer,** PSB Food Service Director
- **Rebeca Salguero Palacios**, Sustainability Coordinator

Group 3: Summary of Recommendations

Recommendations	Type of recommendation	Period of implementation	Expected outcome(s)
3.1. **Composting**: Compost 100% of food waste	Policy	Medium Term (SY25-26)	• Minimize food waste and reduce carbon footprint. • Connect composting activities with curriculum standards
3.2. **Food rescue**: Commit to implementing a PSB food rescue plan	Policy	Short Term (SY24-25)	• Minimize food waste and reduce carbon footprint. • Provide students with an opportunity to learn about and participate in a program to provide healthy food to residents with limited means to purchase groceries.
3.3. **Reusables**: Move to reusable foodware and eliminate single-use plastics	Policy	Medium Term (SY25-26)	• Achieve zero waste goals • Minimize health risks associated with plastics usage
3.4. **Staffing**: Make Food Service Sustainability Coordinator position permanent	HR Investment	Long Term (SY26-27)	• Allow the continuity of established sustainability initiatives and development of new ones to further goals

Recommendation 3.1: Compost 100% of food waste

- **<u>Action</u>:** PSB already composts in all school kitchens and 5 of 10 school cafeterias. **Group 3 recommends that the School Committee commit to composting in the remaining 5 of 10 cafeterias.**
- **<u>Timeline</u>:** DPW and PSB Food Services are willing to partner to provide infrastructure, a how-to guide, and basic training for up to three schools/year.
- **<u>Outcomes</u>:** Diverting 100% of food waste to compost in all schools will reduce trash; reduce carbon emissions; connect composting activities with composting curriculum standards; and reach an easily achievable sustainability milestone for the Town.

Recommendation 3.2: Commit to implementing a PSB food rescue plan

Action: The Food Services Sustainability Coordinator, PSB school nurses, and DPH together will develop a Food Rescue Plan for PSB. **Group 3 recommends that the School Committee commit to implementing this plan.**

The Plan will consist of two parts: (1) a "share table" where students can donate or partake of unopened, pre-packaged, or whole food; and (2) an existing partnership with the Brookline Food Pantry that allows this food to be distributed during holidays and school vacations.

Timeline: The Food Rescue Plan will be developed during SY24-25 for implementation starting in SY25-26.

Outcomes: Rescuing unused food from cafeterias will reduce PSB's food waste and carbon footprint, improve the health and wellness of PSBs students, and provide students with an opportunity to learn the importance of food security.

Recommendation 3.3: Move to reusable foodware and eliminate single-use plastics

- **Action**: Food Services is committed to achieving a zero waste environment by converting to reusables and eliminating single-use plastics. Eight schools have dishwashers and four have begun using reusables. **Group 3 recommends that the School Committee commit to using reusables and eliminating single-use plastics in the remaining schools**, where feasible.
- **Timeline**: Food Services can work to onboard the remaining schools as soon as SY24/25. (An existing donor grant and the Pierce rebuild will cover the remaining dishwashers.)
- **Outcomes**: Switching to resusables reduces solid waste, carbon emissions, and harmful chemicals; and lowers long-term food services and waste management costs. It provides a learning opportunity for students and staff in sustainable living practices.

Recommendation 3.4: Make the Sustainability Coordinator Position Permanent

- Description: A 0.75 FTE Sustainability Coordinator position was established in August 2023, funded yearly for a three-year pilot period by a private donor.

  The sustainability gains over the past year and those described on the previous three slides are dependent on the championship of a Sustainability Coordinator.

  Food Services aims to fund this position beginning in SY26/27 from its revolving fund with increased revenue from increased uptake and from savings through its sustainability practices. **Group 3 recommends that the School Committee approve this position.**

- Timeline: position grant funded through FY25/26
- Outcomes: Increased sustainability of sustainability activities.

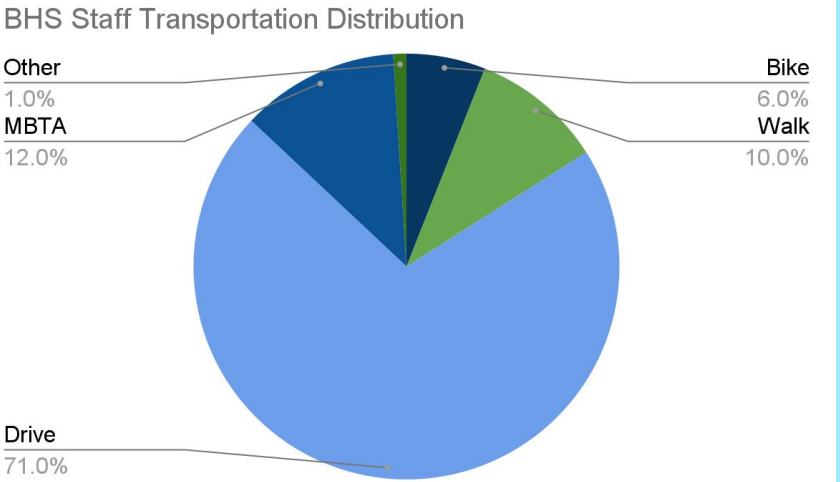
BHS Sustainability Task Force Transportation Subcommittee Recommendations

Members of Transportation Subcommittee

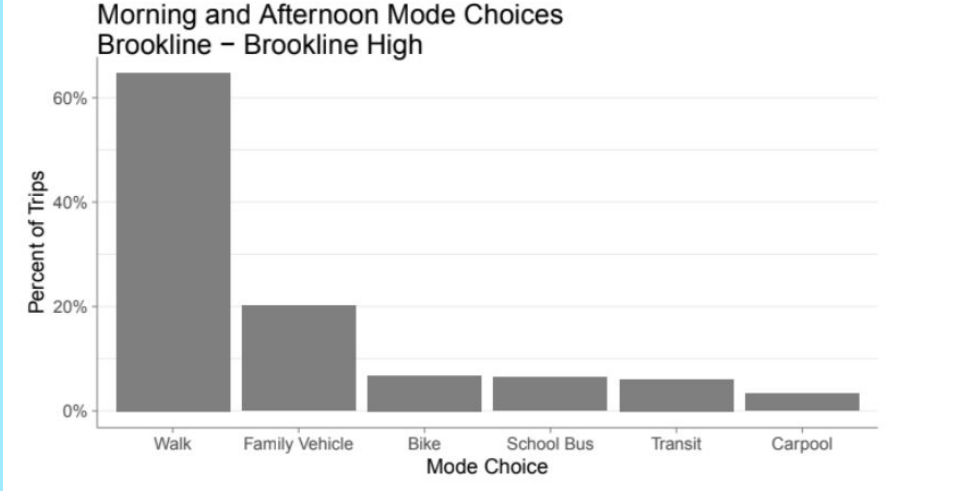
Eric Colburn - BHS English teacher; advisor, Climate & Food Justice Club; member, Safe Routes to School Task Force
Tia Percheva - BHS senior
Amarjot Ranu - BHS senior; intern, Brookline Community Development
Maya Gewurz - BHS senior
Layla Noubir - BHS SWS senior
Alina Samarasan - BHS senior
Toby Sillman - BHS senior; member, Brookline Bicycle Advisory Committee
Audrey Chang - BHS junior
Amirah Saalik - BHS SWS senior
Marina Turchin - BHS SWS junior

RECOMMENDATIONS	TYPE	IMPLEMENTATION TIMELINE	EXPECTED OUTCOMES
4.1 Incentivizing greener staff commuting	Policy	Short term (1-2 years)	Reduction in % of teachers driving; lower GHG emissions from teacher commutes
4.2 Electric vans and buses	Policy	Medium/long term (2-5 years)	Electric vans for students w/ special needs & sports teams; will reduce GHG
4.3 Bicycle infrastructure advocacy (through BAC, T Board)	Policy/ sponsorship	Long term (5+ years)	Safer bike lanes; more student and staff bike use
4.4 Restricting car idling (and/or close streets around schools!)	Human resource investment	Short/long term (1-5 years)	Reduced GHG, etc. emissions around schools → lower rates of asthma and other respiratory conditions

Current Transportation (BHS Staff and Students)



Primary mode of transportation to school for BHS Staff
Source: BHS Staff Survey, 2024



Primary mode of transportation to school for students
Source: BHS Parent Travel Survey, 2022

Recommendation #1: Incentivizing Greener Staff Commuting

(as recommended by consultants in 2019)

4.1.1 Subsidized Staff Charlie Cards

4.1.2 Non-driving Subsidy

4.1.3 Repurposing off-street parking spaces

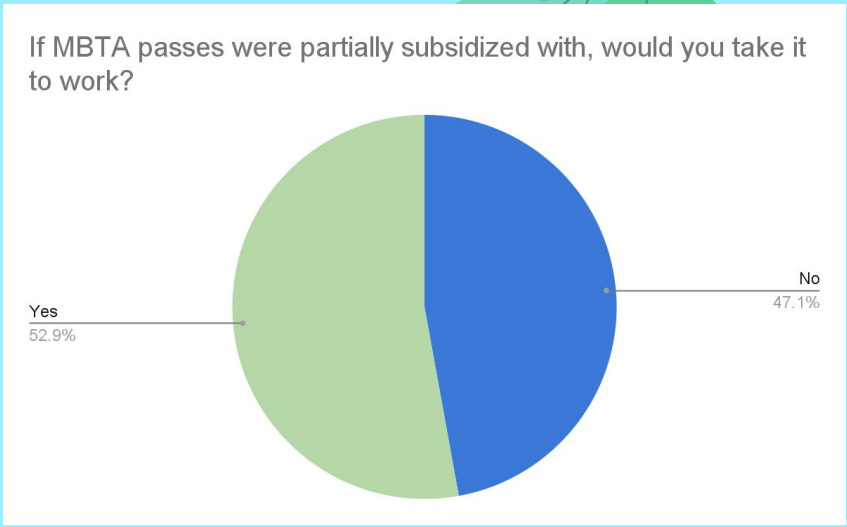
Biggest carbon emission reducer!

~ Incentivizing Greener Staff Commuting ~

4.1.1

Subsidized Staff Charlie Cards

- Subsidies are common (e.g. the City of Boston covers 65% of employee Charlie Cards)
- Of the over 71% of BHS staff currently drive, **53% said they would switch from driving to public transportation** if subsidized Charlie Cards were available
- This would result in **significant emissions savings**:



If just 10% of PSB staff switched, it would save over 110 tons of CO_2 emissions per year.

If 20% switched, then this would save over 220 tons of CO_2 emissions per year.

~ Incentivizing Greener Staff Commuting ~

4.1.2

Non-driving Subsidy

Subsidizing Brookline staff who don't get a parking sticker could increase the share of staff who commute car-free:

If 20% of staff switched to car-free commuting, it would save over 220 tons of CO_2 emissions per year.

Cost:

- If the school provided a $50 monthly subsidy to teachers who don't use a parking permit/spot:
  - If 320 (~20% of staff) used it, this would cost $160,000 yearly
  - BUT: if only 170 parking spots were rented out at $80/month, this would cost $0

~ Incentivizing Greener Staff Commuting ~

4.1.3

Repurposing off-street parking spaces

Parking inventory

- Most staff parking is on-street, but the school system currently has 200+ off-street parking spaces.
- These spaces are large resource devoted to non-sustainable commuting: the market value of an off-street parking space in Brookline is over $200 per month, so...
    - These parking spaces cost the town close to half a million dollars a year ($200/mo/space X 12 mos/year X 200+ spaces = $480,000+/year)

We recommend...

- Either renting out these spaces and using the income to incentivize car-free commuting OR
- Using the lots for something more productive and sustainable (affordable housing for staff?!)

Recommendation #2: Electric Vans and Buses

2.1 Electric Vans

2.2 Electric Buses

4.2.1

Electric Vans

ELECTRIC VAN ADVANTAGES

ELECTRIC VANS

We recommend switching all of our diesel fueled vans to electric vans (special education, field trips, METCO)

PARKING

- Charging stations which are more cost efficient and accessible
- Already have space for vans

MODEL FOR ELECTRIC SCHOOL BUSES

- Will shows potential for electric school buses
- Establishes infrastructure for buses

CLOSE SPORTS GAMES

- Instead of bus: fewer emissions

~ 4.2 Electric Vans and Buses ~

ELECTRIC VEHICLE INFRASTRUCTURE

- Electric Van Option:
    a. Mercedes-Benz Sprinter 15-seat Passenger Van retails for $66,530
    b. Model 1 offers customizable electric passenger vans- up to 20 seats.

4.2.2

Electric Buses

~ 4.2 Electric Vans and Buses ~

ELECTRIC VEHICLE INFRASTRUCTURE + FUTURE ELECTRIC BUSES

- Diesel bus gets 8mpg
- 2 SoBro buses run 50 miles/day → 12.5 gallons per day, 2,275 gallons per year
- 22.5 lbs of emissions/gallon → 26 tons CO_2 emissions/year

COSTS OF ELECTRIC BUSES

Costs of charging stations unclear

Space to park electric buses

Each bus costs $400K but can be reduced by federal gov under Inflation Reduction Act

Recommendation #3: Bicycle Infrastructure Advocacy

1. Work with the Bicycle Advisory Committee and the Transportation Board to create safer bike infrastructure
2. Safer bike lanes will lead to reduced GHG emissions due to fewer car trips
3. More student and staff biking!

~ 4.3 Bicycle Infrastructure Advocacy ~

CURRENT BIKE INFRASTRUCTURE IS INADEQUATE

- Townwide bicycle infrastructure is inadequate and includes hardly any protected bike lanes

- Hundreds of students bike to school, yet they often lack safe routes as a result of existing car-centric infrastructure around Brookline schools

WE RECOMMEND

School Committee should regularly communicate urgency of improving walking and biking infrastructure to the Transportation Board including:

- Endorse Bicycle Advisory Committee's recommendations for safer bike lane infrastructure across the town (esp. near schools) and coordinate with BAC on implementation
- At least one School Committee member should attend a Transportation Board meeting on a monthly basis to track the progress of implementing new bike lanes
- Work to close or severely restrict car traffic around BHS and elementary schools during school hours
- Prioritize the promotion of biking and walking in transportation-related communications AND vocally support bike lane infrastructure currently being debated (e.g. Washington St.)
- Establish bike parking standards @ BHS and elementary schools

If 100 students choose to bike rather than drive, we would save 28 tons of CO_2 from being emitted into the atmosphere on an annual basis.

If 100 staff choose to bike rather than drive, we would save 70 tons of CO_2 emissions.

Recommendation #4: Restricting Car Idling

- Schools should work to enforce the State's idling ban ($100 fine after five minutes)
  - Signs (currently at FRR; needed at other schools)
  - Monitor at each school should report idling (school administrators and other drop-off monitors)

Dream Recommendation: close streets around schools during school hours!

THANK YOU

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THANK YOU

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