



Beacon Hill Community Sustainability Initiative (BHCSI)

Phase 1 Report
& Recommendations

EXECUTIVE SUMMARY

March 2024

FINAL VERSION
BEACONHILL
AT *Eastgate*

Introduction

Beginning in August of 2023, Beacon Hill at Eastgate embarked on a process to formally explore and establish a Sustainability Plan for the organization and its residents. Phase One of the Beacon Hill Community Sustainability Initiative took the following specific steps:

- Engage stakeholders to learn about sustainability efforts that have occurred to date at Beacon Hill
- Explore the work that has been done in similar communities in Michigan and elsewhere to identify best practices
- Gather baseline data for energy, water, and materials use at Beacon Hill to benchmark these important metrics
- Seek ideas from residents and staff for reducing the environmental impact of daily activities at Beacon Hill
- Organize the knowledge collected for future action
- Generate a set of recommendations toward developing a formal Sustainability Plan for Beacon Hill

This report presents the results of the steps outlined above, along with supporting details in the form of exhibits at the end.

From the data gathered during stakeholder engagement and benchmarking steps, assessment of these results is an important next step, as well as a prioritization of potential metrics and actions.

BHCSI Phase 1 gathered input and insight from stakeholders to build upon sustainability efforts to date and establish a process for development of a Beacon Hill Sustainability Plan

Acknowledgements

In highly-collaborative processes like the work of sustainability planning, participation of stakeholders and key contributors is essential to success. The vision and leadership at Beacon Hill, including the Board of Directors, the Beacon Hill Foundation, and especially Beacon Hill's President & CEO, Jeff Huegli, has been critical to Beacon Hill's embarking on a formal sustainability process for the community.

Furthermore, the grass-roots efforts, since 2019, of a group of Beacon Hill residents has also generated the early energy needed to catalyze the formal work. For without the efforts of the Beacon Hill Environmental Action Group (EAG), the potential for sustainability achievement at Beacon Hill might still be in a nascent stage.

The Beacon Hill Community Sustainability Initiative (BHCSI) has grown from the EAG's early work and advocacy to these initial achievements of a formal process, infrastructure, and goals for sustainability implementation at Beacon Hill. The tangible evidence of this formalized energy and infrastructure resides with the BHCSI Steering Committee.

Beacon Hill Community Sustainability Initiative Steering Committee 2023

Matt Zimmerman, Beacon Hill Board Member

Micki Benz, Chairperson, Beacon Hill Foundation

Ashley Edwards, Marketing Director

Sarah Johnson, Service and Events Manager

Mary Kaneti, Beacon Hill Resident

Rhett Pinsky, Beacon Hill Resident

Joe Rinkevich, JPR LLC Sustainability Consulting, Project Director

Many thanks to the Beacon Hill Board of Directors and Foundation, as well as leadership and the Environmental Action Group for the support and contribution to Phase 1.

Methodology

The Methodology of BHCSI Phase 1 used a series of steps to engage stakeholders in the Beacon Hill community, gather information about ongoing sustainability efforts, perspectives, and ideas, as well as take questions and hear concerns.

- (1) Discovery
 - (a) Stakeholder Engagement
 - (b) Materiality Assessment
 - (c) Benchmarking Feasibility
- (2) Assessment
 - (a) Evaluate
 - (b) Prioritize
- (3) Report & Recommend
- (4) Follow-up

In addition to Stakeholder Engagement, the Assessment of potential actions and measures will be critical to maximizing impact and value of selected sustainability efforts. Effectively setting priorities for these actions is also important for optimal achievement. Specific methods for each of these project steps are summarized in their respective sections.

The work put significant emphasis on stakeholder engagement, data gathering, and opportunity evaluation to identify priority areas for an initial Sustainability Plan at Beacon Hill.

Stakeholder Engagement

The idea of connecting with members of a community to learn from their experience, ideas and questions is not new. Often described as Stakeholder Engagement, this process of learning from team members, colleagues, neighbors, customers, suppliers, government officials, and others is an increasingly prevalent part of decision-making in corporations, non-profits, and governments at all levels. In Phase 1 of the Beacon Hill Community Sustainability Initiative, Stakeholder Engagement was a core part of not only the Discovery step of the project, it was also central to all other steps.

Beacon Hill at Eastgate Stakeholders

Residents	Beacon Hill leadership
Staff	Local and regional academic institutions
Beacon Hill Environmental Action Group	Local businesses
Surrounding community members	Suppliers
Local government officials	Utilities
Service providers	

In addition to these efforts to gather information from the BH stakeholder community, this first phase of work also began a process of setting up the infrastructure to communicate plans, goals, progress, and changes to the same connections.

An important decision point from this initial stakeholder engagement was the consensus decision by the BHCSI Steering Committee to focus initial efforts on three areas of work: Energy, Water, and Materials.

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Materiality Assessment

A specific event during the Discovery step was most helpful in gathering stakeholder ideas and input, but this event also provided an opportunity to recognize and solidify the work that has been done previously at Beacon Hill on the topic of sustainability.

A Materiality Assessment is a formal way of describing a process where participants in a meeting are asked to list elements that are important or relevant to a subject, and then prioritize those elements using a scoring method.

In the context of BHCSI, the project team convened a set of two meetings over two days, promoted as the Beacon Hill Sustainability Discovery Meetings [see Appendix 2 - BHCSI Discovery Meetings promotional flyer]. Day One was a one hour session attended by approximately 75 members of the Beacon Hill community.

Day Two of the Discovery Meetings was a working session that included the Materiality Assessment. Approximately 50 residents joined the 90-minute meeting to generate lists of actions Beacon Hill and its residents can take to reduce environmental impact in the three initial areas of Energy, Water, and Materials.

These initial action ideas came from prior work by the EAG and Aquinas College efforts. From this initial list and additional ideas during the workshop discussions, the groups listed and scored for priority over 100 potential actions that could be taken at Beacon Hill across the areas of Energy, Water, and Materials, to reduce environmental impact.

Phase 1 included a Materiality Assessment as part of two in-person meetings to identify what opportunities hold the most potential and are of most interest for sustainability achievement at Beacon Hill.

Benchmarking Feasibility

Parallel to the work of engaging residents and experts on potential areas of action to advance sustainability achievement at Beacon Hill, the project team also began the process of collecting data on the principal areas of initial focus. The purpose of attempting to gather these data is to determine the feasibility of benchmarking specific sustainability areas with data at Beacon Hill:

- Are the data available for a specific area of interest? (eg electricity use data)
- What level of detail is available for the data? (eg One electricity number for the entire community, data by building, data by residence, monthly data, daily data, hourly data, etc)
- How far back in time are the data available? (eg past 12 months, past 24 months, etc)
- How accessible are the data? (eg paper invoices, electronic PDF invoices, spreadsheet or csv files, etc)

How do Beacon Hill per capita natural gas, electricity, and water usage data as well as materials management data compare to Michigan or national per capita natural gas usage? In concert with gathering actual usage data at Beacon Hill, another important aspect of benchmarking is to locate data outside the specific facility of study to determine typical usage levels more generally.

Based on data collected, we learned there is opportunity to refine the incoming data to more detail as well as collect better data about energy, water, and materials use. Initial exploration shows Beacon Hill as around average for consumption in these categories, with the exception of materials where solid waste production and waste to landfill was above average.

Initial benchmarking also discovered that very few communities in the Continuous Care Retirement Community category are publicly communicating sustainability efforts or achievement at present.

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Assessment Evaluation

Based on the input and ideas collected from stakeholders, and knowing these are just the first steps in a long journey of constant improvement and course adjustments over the coming weeks, months, and years, the BHCSI Steering Committee offers an assessment of the information gathered during Phase 1. Part of this assessment process occurred somewhat early in our process: directing focus of our discovery efforts to the three areas of initial action at Beacon Hill. The decision to focus exploration initially to the three areas of Water, Energy, and Materials, enabled the project team to efficiently establish foundational processes for stakeholder engagement and data gathering that can be expanded to additional areas of work over time.

Water - In general, reducing our environmental impact in the area of water means using less water and working to improve water quality through our actions.

Energy - In general, reducing our environmental impact in the area of energy means using less energy and working to improve the sources of our energy. When we use less energy we help to reduce the environmental impact of energy production.

Materials - Managing the use of materials and their disposition can help to reduce environmental impact. Single-use plastic packaging, short-term apparel products, and other materials that usually quickly end up in a landfill or waterways is causing stress on ecological systems. Considering the material attributes of the products purchased (packaging and content) as well as the approach taken with these materials once finished with them are central to reducing their impact.

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Assessment Prioritization

Setting priorities for the potential sustainability actions can be a difficult task. The range of opportunities for any organization or individual is diverse, as the lists in the previous section illustrate. The approach used during the BHCSI Discovery Meetings to identify priority actions evaluated impact and feasibility to determine higher priority. Actions that indicate high impact and high feasibility resulted in a high priority score. Table 8-1 below shows potential Sustainability Action Sequencing:

Action	Area	Data	Unit	Timeframe	Savings potential
Implement a materials sourcing audit	Materials	Organization-, unit-level materials sourcing	Kg of materials sourced, \$ materials sourced	Quick Win	Eventual
Implement a materials recovery audit	Materials	Organization-, unit-level materials recovery	Kg of materials recovered, \$ materials recovered	Quick Win	Eventual
Conduct CE energy audit at BH	Energy	BH-, Building, Unit-level consumption	Kilowatt hours (kWh) of energy consumption	Quick Win	Eventual
Audit fixtures and appliances in use	Water	Inventory and water used	Gallons per month by fixture type	Quick Win	Eventual
Switch to LED lighting	Energy	Building-, unit-level consumption	Kilowatt hours (kWh) of energy consumption, Tons CO2e	Quick Win	Yes
Mark recycling instructions more clearly on bins	Materials	Building-, unit-level recycling	Kilograms (kg) of materials recycled, \$ of materials recycled	Quick Win	Yes
Explore subscribing to Consumers Energy (CE) Solar Blocks	Energy	Building-, unit-level consumption	Kilowatt hours (kWh) of energy consumption	Quick Win	No
Install Low-flow fixtures	Water	Building-, unit-level consumption	Gallons per minute, Cubic feet per month	Quick Win	Yes
Install Low-flush toilets	Water	Building-, unit-, appliance-level consumption	Gallons per minute, Cubic feet per month	Quick Win	Yes
Install Efficient clothes washing machine as replaced	Water	Building-, unit-, appliance-level consumption	Gallons per cycle, Cubic feet per month	Quick Win	Yes

The steps of Materiality Assessment, Benchmarking Feasibility, and Assessment Evaluation enabled the project team to recommend priorities for initial sustainability action at Beacon Hill.

Economic Value Potential

An important criteria when exploring sustainability action at Beacon Hill is the potential for each action to generate economic value. For example, will the cost of upgrading to low-flow fixtures for water savings have a positive financial return through reduced water utility expense? In some cases, even with clear, objective sustainability benefits of an action, the direct economics may not prove positive (i.e., it may cost more to implement an action than the financial return or another benefit that the action generates).

In these cases, there may be an opportunity to make use of funding from government or private foundations to pursue the capital expenses associated with a project. This supplemental funding can often turn a sustainability action into an ongoing financial win as well as a win for the environment.

In addition, there may be softer benefits to a sustainability action that are more difficult to quantify. For example, the expenditure for solar panels on the roof at Beacon Hill is a visible signal of the community's commitment to sustainability, generating public recognition and brand value that is difficult to quantify.

Including a project finance return on investment component to each sustainability action will be an important part of ongoing success of Beacon Hill's sustainability efforts. Generating the data related to economic outcomes of each effort compared to forecast outcomes will help with selection of the most successful actions going forward.

Generating the data related to economic outcomes of each effort compared to forecast outcomes will help with selection of the most potentially successful actions going forward.

Sustainability Plan Recommendations

Based on what has been learned to date during Phase 1, there is a clear and viable path forward for the Beacon Hill Community Sustainability Initiative. The Steering Committee's recommendations are as follows:

- I. Launch BHCSI Phase 2 as soon as possible to achieve continuity and maintain momentum of project progress.
- II. Phase 2 tasks to include surveying existing sustainability plans at relatively similar organizations – if not other CCRC facilities then small universities, hospitals, etc. where available.
- III. Phase 2 tasks also to include coordination of Water, Energy, and Materials audits as described in Table 8-1 and elsewhere in this report. Audits will further establish benchmarks for current activity and enable goal setting toward measurable achievement against sustainability progress at Beacon Hill.
- IV. Explore and ID more reliable and efficient ways to gather Water, Electricity, Natural Gas, and Materials use/recovery data going forward.
- V. Phase 2 to culminate with a draft of the first Beacon Hill Sustainability Plan – and arguably the first formal Sustainability Plan in the CCRC category based on format, contents, and governance/accountability best practices.
- VI. Phase 2 also to include a preliminary calculation of Beacon Hill's Carbon Footprint using one of several international standards currently available (e.g., UNE-ISO 14064, GHG Protocol).
- VII. Parallel to Phase 2 Sustainability Plan development and related tasks, the Steering Committee also recommends initiating 1 to 2 priority Quick Win projects in each area of Water, Energy, and Materials to continue engagement of staff and residents. Steering Committee to determine which actions are implemented.
- VIII. As part of Phase 2, compile a preliminary list of funding resources from Federal, State, and private foundation sources, the related requirements, and recommendations for next steps.

Based on what has been learned to date during Phase 1, there is a clear and viable path forward for the Beacon Hill Community Sustainability Initiative.

Phase 2 Work Plan

The primary objective of the Phase 2 Project is to complete the remaining steps toward establishing a Sustainability Plan for Beacon Hill at Eastgate via the following tasks:

- (1) Explore Plan Landscape :: Document examples of best practices at similar organizations
- (2) Benchmark Metrics :: Coordinate initial audits of Water, Energy, and Materials to further establish baseline levels of activity and set initial goals for achievement against key metrics
- (3) Draft Plan :: Generate an initial draft of the first Beacon Hill Sustainability Plan – and arguably the first formal Sustainability Plan in the CCRC category based on format, contents, and governance/accountability best practices. Including the following elements:
 - (a) Proposed Governance structure for the Plan
 - (b) Schedule for updating the Plan, generating regular Reports (e.g., every 4 years, etc) on progress
 - (c) Key metrics, data collection methods, and achievement goals
 - (d) Connections to state-, national, and international standards (where applicable)
 - (e) Communication of the Plan
 - (f) Financial reporting process
 - (g) Finalization and formal adoption of Beacon Hill's inaugural Sustainability Plan
 - (h) Others as identified
- (4) Draft Carbon Footprint
- (5) Project Action
- (6) Funding

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