



# SEATTLE PUBLIC SCHOOLS

SUSTAINABILITY VISION, GOALS AND STRATEGY

NOVEMBER 24, 2020



We respectfully acknowledge the Suquamish and Duwamish peoples, who, throughout the generations, stewarded and thrived on the land where we live and work.



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## ACKNOWLEDGMENTS

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# EXECUTIVE SUMMARY



**“There is one, and only one solution, and we have almost no time to try it. We must turn all our resources to repairing the natural world, and train all our young people to help. They want to; we need to give them this last chance to create forests, soils, clean waters, clean energies, secure communities, stable regions, and to know how to do it from hands-on experience.”**

Bill Mollison, the father of permaculture

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## EXECUTIVE SUMMARY

### INTRODUCTION – BASIS FOR THIS WORK

The Seattle Public School district has been a leader in implementing sustainability measures over the last decade. With each new BEX/BTA Levy project, school buildings have been retrofitted for energy, water, or waste – now improving operations in 85% of school buildings. The conservation and operations teams have been able to measure 17.5% energy savings, 7.5% water savings and a 19.6% increase in recycling resulting in \$1,400,000 in savings. The district has 10 solar schools and 64 Certified Washington Green Schools, engaging students in the process of measuring and bringing about positive changes. Over 8000 pounds of food have been diverted from the landfill and shared with the community. There is much to celebrate as the district has been recognized for these achievements with a Green Ribbon Award over multiple years.

With this history of proven leadership, it is no surprise that the champions for sustainability and environmental justice throughout the district are ready to take the next step. They recognize there are more savings to be found by removing more waste from the system. They observe that improving performance in schools also improves the quality of life for students and faculty and that solutions provide educational opportunities. Even more, they are listening to the students' urgent cries for leadership in addressing climate change. They are eager to find and model solutions that go beyond doing less harm to those that begin to repair damage and create conditions for living systems to regenerate.

It is with this in mind that SPS hired the McLennan Design team to listen to the voices of school policy makers, curriculum experts, teachers, students, parents, administrators, facility operations experts, champions for equity and resource conservation specialists. The team was charged with articulating the district's vision for a climate positive, zero-waste, and responsible water future and documenting recommendations and pathways for achieving this vision.

This report describes the work of five months of engagement, discovery, and analysis of the high-level opportunities for ongoing leadership. The **Background** section explains why regeneration is essential for this time and place. In **Overview and Engagement**, the process of engaging with stakeholders is described. The **Discovery** section summarizes the review of existing policy, and documents conducted. The **Analysis** section makes observations about what is working well, and shares lessons learned from the engagement and goal setting process. The **Synthesis** section brings together all these ideas into a playbook of recommendations and a timeline for achievement.



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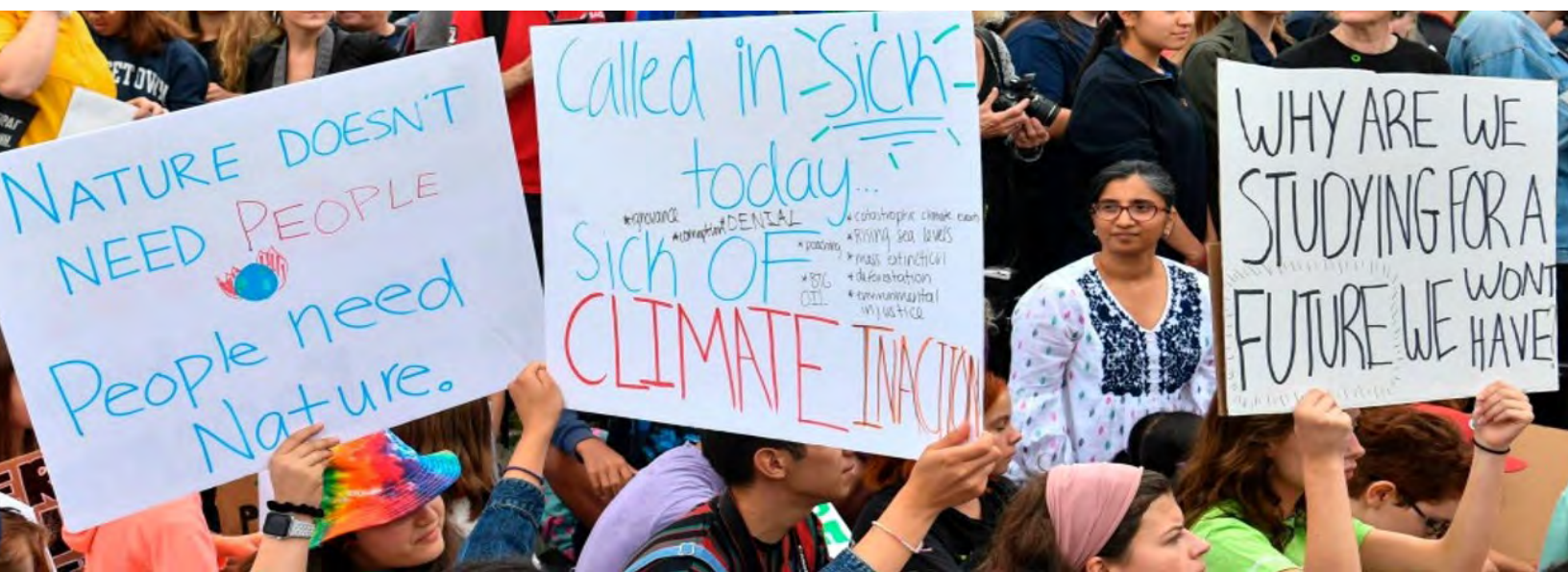
## EXECUTIVE SUMMARY

### SOCIAL AND ENVIRONMENTAL CONTEXT

Seattle Public Schools (SPS) is committed to ensuring equitable access, closing the opportunity gap, and providing excellence in education for every student. An essential part of preparing every student with a 21st century education is having a hands-on working knowledge of living systems. Understanding the biological and human health connection to functioning eco-systems and climate science is essential in the age of the Anthropocene, where human activity is the dominant influence on the increasingly fragile climate and environment. There are new economic paradigms and opportunities awaiting this generation as they solve the problems created in previous generations. Above all, they need an intuitive and holistic understanding of how to work together as people from many different cultural backgrounds to solve the challenges of this age. As a part of the sustainability work ahead, SPS seeks not only to build resilient schools that maintain function during a disruption, but more to prepare students to be resilient themselves for whatever the future brings.

It is no longer enough for a school district to be concerned about resource conservation and reducing the environmental footprint of the institution. The world's scientists have warned for many decades that every living system has been in decline, and the rate of that decline is increasing. The age of incrementalism and mitigation has passed. It is time to leap forward into the age of regeneration, where humans begin to better understand and participate with living systems while strengthening the community systems that support them.

This generation is asking a new question, "Why are we studying for a future we won't have?" The challenges facing this generation require a new way of approaching almost every aspect of daily life to meet the needs of this generation without sacrificing the ability of future generations to meet their needs. It requires an equitable re-distribution of benefits with a dramatic reduction in resource use. It requires an immediate shift (within 10 years) to climate positive strategies while students learn how to observe and understand the systems that regulate all life on earth.





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## EXECUTIVE SUMMARY

### OVERARCHING RECOMMENDATIONS

The **Synthesis** section of this report, defines overarching recommendations that evolved from stakeholder priorities and the consultant's observations. They are summarized here:

It is recommended that in alignment with the district's mission, vision, resolutions, and policies, the Board of Education for Seattle Public Schools adopt the following vision and goals relative to Environmental Justice:

*Use today's financial and human resources to provide environmental justice and health benefits equitably across our community and into the future by empowering the SPS community to accomplish the following:*

- Be a Carbon Positive School District by 2040
- Be a Zero-Waste School District by 2030
- Be a Responsible Water School District by 2040

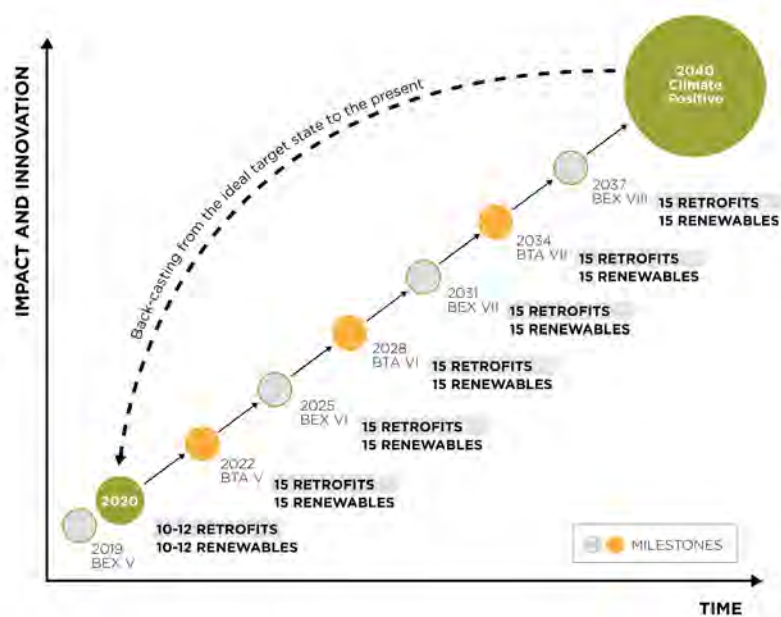
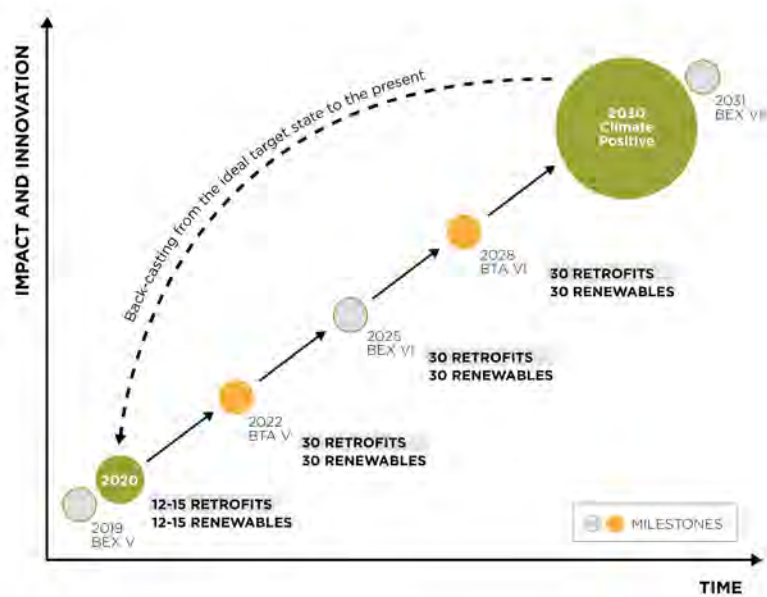
To accomplish these goals, it is necessary to update existing policies, procedures, and standards with new targets and strategies. It means building upon the impressive measurement work of the past decade and liberating that data to celebrate accomplishments and provide more insight into future work. It means continuing to complete retrofit work focused on upgraded performance with each levy cycle. Finally, it means adding renewable energy technology to the district's portfolio at a steady pace.

From this point forward, all new construction should meet the newly established targets of carbon positive, zero waste and responsible water. Retrofits and renewable energy projects can be completed within the structure of the current BEX/BTA Levy cycles over the next 10-20 years. This report outlines two different scenarios for how to leverage the levy cycles.

The first scenario is an accelerated schedule designed to meet the targets by 2030. This scenario will be easier to achieve if a building portfolio audit determines that many schools are already meeting some of the targets, or if the district determines that this is a high priority for investment because it has a reasonable rate of return. Completing the portfolio analysis is a high priority next step.

The second scenario, if more retrofit work is required, allows the district to spread the retrofits and renewable energy projects out over 20 years, to move at a pace that is similar to the current pace of BTA/BEX Levy projects. In either scenario, the most underperforming and under-invested schools should be the first to receive upgrades and renewable energy to garner the greatest savings early in the process.

# EXECUTIVE SUMMARY









The group used a Back-casting technique (from The Natural Step), to set the vision of Climate Positive by 2030 (ideal) or 2040 (conservative) as a vision far out on the horizon, and then cast backward to today and set key milestones to be able to achieve that vision.

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## EXECUTIVE SUMMARY

### PLAYBOOK RECOMMENDATIONS

The **Synthesis** section of this report also includes a playbook of recommendations that have evolved from the engagement process and the consultant teams' observations in the categories of: **policy**, **staffing**, **education**, **equity**, **measurement** and **buildings + sites** designed to show each task in terms of what is required, why it is important and what resources are needed. References and helpful resources are also provided to guide staff. Each recommendation is projected on a timeline that helps staff to focus on immediate next steps while beginning to plan for future mid-term and long-term work. These recommendations outline a scope of work that will lead to the next levels of performance and help the district reach a carbon positive balance, become zero-waste, and incorporate responsible water targets within this decade or the next.

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## EXECUTIVE SUMMARY



### POLICY

In the near-term, it is necessary to develop a policy requiring new building performance standards that include carbon positive, zero waste and responsible water targets. It is also necessary for the district to explore purchasing options for a district-wide solar program as well as a centralized green purchasing program. Finally, adopting a resilience plan for the district is recommended.



### STAFFING

In the mid-term, it is recommended that the district hire or promote a Chief Sustainability Director and a Chief Environmental Justice Director to add focus and accountability to all these initiatives.



### EDUCATION

In the near-term, a Comprehensive Sustainability and Resilience Plan is necessary to tie together and measure all the disparate initiatives happening across disciplines. It should include baseline data as well as the modeled impacts of various strategies to determine priority and payback.

As the Curriculum team updates curriculum for the district it is a good time to collaborate to integrate sustainability into that work. Meanwhile, strengthening the existing Green Teams program is an essential educational opportunity already available but needing more support.



### EQUITY

A critical next step in influencing future BEX/BTA projects is updating the Capital Factors Criteria to integrate sustainability and environmental justice as social equity has been integrated.

At any time, the district can pursue a JUST Label with the International Living Future Institute to be transparent – and celebrate – their labor and equity initiatives with the community.



### MEASUREMENT

In the near-term, a third-party verified 2020 Carbon Footprint Baseline is essential to identify the opportunity areas of greatest impact for future work. Existing data needs to be organized and communicated for the district to be able to celebrate achievements and focus on new targets. In addition to measuring the reduction of the District's negative footprint, it is also essential to measure the positive outcomes the District has within the community – handprints –to show progress with environmental justice.

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## EXECUTIVE SUMMARY



### BUILDING + SITES

In the near-term, it is possible to utilize the International Living Future's Living Building Challenge (LBC), a regenerative design rating system, to evaluate the current BEX V projects to identify opportunities that may be within the project budget and schedule but could improve the performance of the next round of building projects. New projects should then require LBC Core + Petal certification to align with the district's new targets. Meanwhile, it is necessary to develop a retrofit schedule that focuses on the highest impact and the equitable distribution of benefits across the portfolio.

In the mid-term, it will be necessary to update standards, processes, and procedures to ensure the new targets are well integrated at every step of the team selection, design, and construction processes. Standards should also be updated to include biophilic design strategies, Living School Yard program strategies and stormwater solutions.

### NEXT STEPS

District staff have been doing amazing work to implement the resolutions, policies, and standards for over a decade and now have measurable progress to celebrate. This means that the answer to any future improved performance is already in the room with the passionate and dedicated champions of sustainability and environmental justice throughout the district. They have already implemented many of the best practices that make Seattle Public Schools a leader among peers. To move to the next level, staff are asking for more information about where they can focus efforts to impact greater change.

The very next step is to provide baseline data from a district-wide comprehensive carbon footprint analysis. Then follow with a comprehensive sustainability and resilience plan for the district that will guide the updating of standards and practice already in place in time to impact upcoming levy cycles. The Synthesis chapter of this report is a playbook that includes additional mid- and long-range targets born of the rich dialogue with teachers, student and curriculum experts to create the spaces and programs within the schools that will allow students in this generation to learn first-hand what the living world and climate science has to teach them.