Bend-La Pine Schools Sustainability Plan

Updated 2021



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Bend-La Pine Schools thanks the following community members and staff for contributing to the development of this Sustainability Plan. Over the course of seven months Committee members met regularly to create and agree upon the recommendations in this Plan. Committee discussions were open and respectful, filled with intelligent dialogue, and desire to develop measurable sustainability goals and actions.

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EDUCATING THRIVING CITIZENS

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Summary

This document is the Bend-La Pine Schools' Sustainability Plan. This Plan was developed at the direction of the School Board in EL-7 (Executive Limitation -7). The purpose of the Plan is to:

- Address facility development, improvements, operations, and maintenance
- · Identify objective short-term and long-term measures for measuring efficacy and achievement of sustainability goals
- Ensure data-collection to enable annual reporting on progress toward goals

The Plan was developed using principles of sustainability as a framework for decision-making with the following priorities in mind:

- Fostering health and well-being by providing a physical environment that promotes the health, productivity, and safety of students, staff, and community.
- Striving to provide education that supports concepts and practices of economic, social, and environmental responsibility and sustainability.
- Implementing sustainability practices for Bend-La Pine Schools operations that balance environmental, social, and fiscal
 responsibility while considering the lifecycle impact of its actions.



The Plan identifies the following four Focus Area and describes Goals and Strategies to meet the Goals over the next five years:

Education

- Educating Students and Staff
- Modeling Sustainable Actions

Building Development and Operations

- New and Existing Buildings
- Efficiency and Conservation
- Clean Energy

Transportation

- **Reducing Emissions**
- Active Transportation Options



Material Management

- Recycling and Waste Reduction
- Toxics Reduction

Bend-La Pine Schools at a Glance

- Administrative School District No. 1, Deschutes County (Bend-La Pine Schools or BLS) is located on the east side of the Cascade mountains and is the 5th largest school district in Oregon.
- Spanning 38 facilities and 2.8 million square feet of buildings and grounds, it is essential we develop wisely and upgrade facilities through responsible fiscal decision-making using conservation strategies.
 - We educate over 18,000 students to be thriving citizens and strive to educate students on sustainability and climate change science.
 - We inspire over 2,000 staff to commit to sustainability.
 - While we are dependent on the use of fossil fuels for many processes including transportation, production of food and materials, purchasing, energy for buildings, we strive to reduce greenhouse gas emissions across all departments through our decisions and operations.

Foundations for the BLS Sustainability Plan

The Sustainability Plan is built upon several foundations:

- 1. BLS EL-7 states:
 - O Ensure a Sustainability Plan is developed, reviewed, and revised every 5 years or more. This sustainability plan shall not fail to:
 - Address facility development, improvement, operation, and maintenance
 - Identify objective short and long-term measures for measuring efficacy and achievement of sustainability goals
 - Ensure data-collection to enable annual reporting on progress toward goals The Call to Action Climate Resolution 1884
- 2. The Call to Action Climate Resolution 1884
- 3. The Sustainability EDDA-AR states:
 - Bend-La Pine Schools will use principles of sustainability as a framework for decision-making with the following priorities in mind:
 - Foster health and well-being by providing a physical environment that promotes the health, productivity, and safety of students, staff, and community.
 - Strive to provide education that supports concepts and practices of economic, social, and environmental responsibility and sustainability.
 - Implement sustainability practices for Bend-La Pine Schools operations that balance environmental, social, and fiscal responsibility while considering the lifecycle impact of its actions.



Sustainability Vision

Bend-La Pine Schools will educate and inspire students and staff to be leaders in a sustainable community, use resources wisely and support the district's educational and operational goals.



Sustainability Mission Statement

Bend-La Pine Schools will create a culture of sustainability by inspiring students and staff to commit to sustainable actions and stewardship in the operation and design of district facilities.

Guiding Principles

Bend-La Pine Schools administrators, staff, students, and stakeholders will employ the following Guiding Principles to reach the District's sustainability goals:

- Support BLS's educational mission by building and operating facilities that promote student, staff and visitors' health, productivity, and safety.
- 2. Model sustainable operations and practices every day at every site.
- 3. Reduce operational costs through efficient use and conservation of energy, water, and resources.
- 4. Balance educational, fiscal, social, and environmental responsibility in day-to-day decision making and long-range planning.
- 5. Measure and monitor goals and strategies to reach the stated outcomes in 4 primary focus areas: education, buildings, transportation, and materials.
- 6. Collaborate with partner organizations, businesses, and agencies including the City of Bend through their Community Climate Action Plan, on best practices in sustainability to support education and operations in a diverse and changing world.
- 7. Effectively communicate the sustainability initiatives and successes throughout the district and community.



Measuring Success

BLS will track and measure progress on its sustainability goals on a regular basis to understand how well the district is implementing the 5-year goals. This will enable the District to decide whether to stay the course, accelerate efforts, or change course in the strategies and actions used to pursue its sustainability goals.





Education Goals

Educating Students and Staff • Modeling Sustainable Actions

BLS strives to educate all students in sustainability and provide opportunities to students and staff to actively participate in the sustainable operations at schools. We communicate and implement sustainable practices in all schools and departments.



All schools will participate in the sustainability program focused on student green teams and school operations.

Strategies

1a. By the end of 2021, BLS will complete an analysis of the sustainability program to build on the strengths and make it more valuable across district schools and staff.

- · Get feedback from current and former Sustainability Advisors to update the sustainability program
- Create a district wide high school student leaders' group to enhance the program and make it more enticing for high schools

1b. Have a Staff Sustainability Advisor position at every school by 2025

- Enhance the value of position reviewing compensation structure and staff time
- Consider adding a sustainability (natural resources) elective class at MS and HS

Ic. Implement sustainability standards and protocols for all schools, staff, and students.

- Work with Sustainability Advisors and student Green Teams to create a set of sustainability standards to be included in ALL staff and student orientations
- Finalize and implement Energy conservation guidelines to be used at all school sites by 2021/2022 school year
- Holiday Standard Operating Procedures (SOP) will be integrated into school culture
- Include sustainability operating protocols in the Facility Use Agreement





Integrate sustainability into Green Team curriculum and schools

Strategies

2a. Work with local organizations to bring sustainability education in classrooms across the district

• Track and report the student contacts reached in the EarthSmart education series taught through The Environmental Center sustainability education program

2b. Increase sustainability education in schools through partnerships, grade level appropriate content and providing curriculum resources annually

- By 2021/22, share lessons with schools through Sustainability Advisors to educate the Green Team and the school community.
- Sustainability Coordinator will track use of lessons taught to Green Teams through the self-assessment completed by the Sustainability Advisors every trimester

2c. Embed sustainability into school culture through orientation trainings and exhibits of green team projects/ work

- Student Green Teams will support each other, assist in orientations, and embed sustainability into the school culture
- Provide District-level opportunities to exhibit student Green Teams' projects/work
- · Create a grade-level appropriate content for sustainability education for use in grades K-12

2d. All schools will be working towards a third party certification such as Oregon Green School Certification.



Increase communication and cohesion in sustainability throughout the district

Strategies

3a. Integrate sustainability goals, events, and initiatives with effective communications, internally and externally, that utilize multiple channels and celebrate student success.

- Put the Sustainability Plan and Climate Resolution on the district website
- Regularly share BLS successes with community and staff
- Sustainability Coordinator will provide a monthly update to Sustainability Advisors with lessons, program highlights, and program successes

3b. Develop an information system to share sustainability efforts and school success in kWh reduction, Energy Star performance, and waste reduction

3c. By June, 2022, review staffing levels for sustainability efforts to ensure the implementation of this Plan

New and Existing Buildings • Efficiency and Conservation • Clean Energy

BLS will develop and improve healthy built environments for learning. We will strive for net-zero energy, reducing emissions that cause climate change, comprehensive integration of efficiency, renewable energy, and optimal conservation strategies.



Using the Benchmarking data from 2018-2019, reduce Site Energy Use Intensity (EUI) on average (kBtU/SF/yr) annually, striving for average portfolio wide goal of 35 by 2030 and 30 by 2045

Strategies

4a. Perform Building Opportunity Assessments (BOA) at all school facilities with assistance from the Energy Trust of Oregon (ETO) Strategic Energy Management (SEM) and SB1149 programs and/or Bend-LaPine Schools' Commissioning Agent

- Using the ETO Treasure hunt BOA template, complete BOA at all school sites by 2025
- For the 12 schools that had major commissioning services performed under the 2017 bond, evaluate leveraging the investment, by contracting with BLS's commissioning agent to document additional energy savings opportunities they observed
- No and low cost measures in the BOAs will be evaluated regularly and implemented as budget and staff resources allow
- As part of the periodic Sites & Facilities Plan update process, BOAs will be reviewed and larger scope and greater cost projects will be considered for inclusion in future bond project lists
- The Sustainability Coordinator will update BOAs as energy-saving measures are completed and document them in the annual Sustainability Report.
- Add energy efficiency guidelines to training for all nutrition service staff computers, ovens, dishwashers, coolers
- Purchase Energy Star rated equipment for upgrades and renovation when possible

4b. Implement Energy Conservation (Guidelines) in all schools to reduce consumption and increase conservation in schools starting in the 2021/2022 school year

Solicit feedback on Draft Energy Conservation Guidelines and finalize

4c. Both new construction and modernization projects under the bond program will prioritize building envelope, HVAC, lighting, and plumbing efficiency to ensure all projects are designed to be energy and water efficient, as appropriate

4d. Practice continual energy management: to optimize and maintain HVAC, hot water, and control systems for energy efficiency. Maintenance and operations will prioritize work orders affecting energy & water use when possible, conduct building automation system (BAS) monitoring, and consider retro-commissioning of HVAC and controls as needed to ensure buildings are operating efficiently



- Review and update programming and sequences in upgraded BAS to be consistent across the district to optimize energy efficiency. Document the updates made.
- Based on results from BOAs, identify schools where conversion to modern digital controls are needed
- Based on results from BOA, identify schools where high-efficiency condensing boilers, VFDs on fans or pumps, or other control devices are needed to optimize energy efficiency.
- Evaluate the value and benefits of retro-commissioning for each building with an Energy Star Score of 50 or above
- When appropriate, Bond projects will undergo commissioning to ensure buildings are functioning as designed for energy and system efficiency

4e. Evaluate the ASHRAE (American Society of Heating and Air-Conditioning Engineers) Achieving Zero Energy Advanced Energy Design Guide for K-12 School Buildings to determine if appropriate to use in BLS Design Standards to set a common understanding for energy-efficient design principles and practices

4f. Utilize an energy management software system (currently Portfolio Manager) to benchmark, measure and track energy and water consumption, as well as greenhouse gas emissions, across BLS's portfolio of buildings

- Share information about the building portfolio and individual sites with building engineers and administrative teams
- Develop methodology to share building performance data



Create a culture of water conservation with students and staff in schools

Strategies

5a. Benchmark existing indoor water use

• Review monthly bills in winter and compare year to year to share with the school community to build an understanding of indoor water use in the district among students and staff

5b. Educate BLS community about water conservation at school and at home

- Design water conservation signs to place in schools reminding students and staff about the value of water in the high desert
- Educate students about water conservation through lessons with Environmental Centers/City of Bend (measured through annual report)
- Regularly inventory classroom sinks for leaks with student Green Teams and submit work orders
- Custodial staff will regularly inventory non-classroom sinks and toilets for leaks and submit work orders

5c. In remodels and new construction, install EPA WaterSense fixtures where feasible



Reduce outside water use annually with a goal to reduce use by 10% by 2030

Strategies

6a. Use the lessons from the City of Bend's Large Landscape program pilot to reduce water use at district sites

- Adopt turf management practices such as aeration, thatching, and top dressing to change the turf water holding capacity to reduce watering frequencies
- · Strive to irrigate at times to reduce evaporation
- Monitor sprinkler efficiency through adjusting sprinkler heads and replacing spray heads with drip heads or micro-spray heads where feasible and in locations where impervious surfaces are watered
- Continue to participate in the City of Bend's Large Landscape program
- Complete water audits annually
- Increase native plantings in medians and in areas where they can be easily maintained

6b. Increase outdoor classroom space utilizing ADA-compliant grass-free zones such as nature play areas

6c. Convert lawn to native or landscaped beds in areas where the lawn is not needed, including outside of the secure perimeter



By 2025, design new construction to be net-zero capable or ready with an Energy Use Intensity (EUI) target of 25 for all schools

Strategies

7a. Regularly update the design standards to ensure sustainability is addressed and new facilities and major renovations are constructed as high-performing facilities with the lowest feasible long-term operating costs.

- Consider incorporating the ASHRAE (American Society of Heating and Air-Conditioning Engineers) Achieving Zero Energy Advanced Energy Design Guide for K-12 School Buildings principles into BLS Design Standards to set a common understanding for energy-efficient design principles and practices, as appropriate
- Include sustainability in the charrette at the outset of every project and coordinate with the Energy Trust of Oregon to obtain energy design cash incentives
- Review building envelope efficiency strategies including: glazing, solar orientation of the building, daylighting, roof reflectivity, and integrative design for a tight building envelope to allow proper sizing of building systems



Increase BLS electricity sourced from renewable energy to 500 kWH by 2035

Strategies

8a. Obtain baseline data of renewable systems in the district, the kWh generation, and avoided costs annually.

8b. Complete a solar feasibility study to determine schools with the greatest kWh potential

- Using the solar feasibility study, consider projects identified in the District Sites and Facilities Plan update for a grant or bond-funded solar installation.
- Seek additional funding sources
 - Review the possibility for third-party power purchase agreements of solar energy systems and community solar projects.

5c. Evaluate all new construction and renovation projects for solar (kWH) potential, financial impact, return on investment, and most cost-effective opportunity for renewable systems

- Build schools with new roof structures and adequate sun exposure for solar power, solar-ready, by adding infrastructure for roof support and dedicating space for necessary electrical equipment, where feasible.
- Research options to increase solar capacity in facilities





Reducing Emissions • Active Transportation Options

BLS will demonstrate leadership in sustainable transportation by reducing collective vehicle emissions and idling, increasing fleet operational efficiencies, and providing active transportation options such as walking, biking, carpooling, public transit, and busing.



Using the baseline data from 2018/2019, increase bus ridership among district schools by percent of eligible riders annually

Strategies

9a. Implement an ad and social media campaign in the spring and fall of every year to educate the public about the benefits of school bus ridership - Focus on reducing student and parent driving.

9b. Participate in the American School Bus Council, Love the Bus week annually in February, starting in 2022

9c. Register bus riders annually in order to reduce stops and time spent on routes



Annually Increase the percentage of students and staff using active transportation methods such as walking and biking to get to school

Strategies

10a. Collaborate with Commute Options to gather baseline data on the percentage of students and staff using active transportation throughout the school year through an annual survey of staff and parents starting in the fall of 2021.

10b. Increase walking and rolling routes for schools throughout the district and create a link through school websites. Place a transportation options information page on each school Website. Include transportation options in newsletters and the district website to share routes for all schools.

10c. Increase the number of walking school bus routes at schools

- Create preferred walking and rolling routes maps for all schools across the district to add to their transportation options page on school websites
- The Transportation Department and Commute Options will collaborate to determine transportation options needs around schools
- BLS and Commute Options will collaborate to seek funding to support walking school bus leaders and program manager
- Schools will work with Commute Options and the PTA/PTO to seek leaders and volunteers to support the walking school bus program
- Annually Commute Options will provide annual documentation of # of walking school buses, # of student served, # schools supported



10d. By 2025, increase the Commute Options' Walk and Roll to School Day program to include a day in the fall and in the spring

- BLS will support the two annual events by sharing information with all school communities, students, and parents
- Commute Options will work with schools to gather data on participation and provide incentive awards

10e. Develop funding to pilot the Get There Rewards Program at one High school, Middle school, and Elementary school to gather data on the effectiveness of the incentive program among staff

- Commute Options will report annually on # of staff participating and # of incentive awards
- Seek PTA/PTO support, boosters, and grants to support the financial needs of this program at each school site participating in Get There

10f. Teach students about alternative transportation and emissions related to vehicle traffic at schools

10g. Teach students about active transportation and walking and rolling through Safe Routes to school

 Commute Options will develop and present educational program and report annually on # of schools and students reached

10h. By 2025, at least 10 schools Green Teams will complete an Oregon Green School transportation audit to learn about the transportation culture in the school community



Reduce transportation-related emissions at schools and overall fleet-related emissions. Increase fleet fuel efficiency through bus routing, alternative fuel vehicles, and replacing older vehicles with more efficient vehicles.

Strategies

11a. Decrease fleet related emissions

- Implement clean fuels in the bus fleet using R99 fuel blend
- Study the cost and feasibility of increasing the electric fleet of buses and building charging stations in order to replace diesel and propane buses with EV buses

11b. Decrease idling at school site

- · Monitor idling time for fleet with reminders sent to drivers that idle for too long
- Create and implement Standard Operating Procedures (SOP) for idling with times set for different weather conditions, train drivers on the SOP, and implement competition incentives for drivers
- Educate and implement no-idling campaigns at schools for student drop off
- · Add anti-idling language to all school newsletters starting in fall 2021
- Use Green Teams/volunteers to track idling at schools

11c. Research and evaluate cost to install EV charging conduit in parking lot projects involving paving to increase EV capacity by 2025

• Seek out grants and business support to install charging stations



Recyling and Waste Reduction • Toxics Reduction

BLS will reduce environmental impacts by decreasing waste and increasing recycling. We will reuse, recycle, or compost materials used in daily operations, building construction, and renovation projects. We strive to use benign chemicals in schools and on grounds in operations.



Decrease the pick-up across the district by 10% compared to baseline year of 2018/2019

Strategies

12a. Complete audits of trash containers and fill rates at all schools

- · Create custodial dumpster logs and review them monthly during 2021/2022 school year
- Work with facility staff and custodial lead to set specific goals for waste reduction and communicate the goal to each school through the Sustainability Leaders

12b. Provide annual information and training about DCSW recyclables and waste reduction throughout the district

· The Sustainability Advisors will provide waste reduction curriculum to schools

12c. Create a district-wide program for integrating recycling stations at schools' cafeterias and common areas

- Green Teams and custodial staff will develop consistent recycling protocols for classrooms and common areas at schools
- Green Teams will educate the school community on the recycling systems

12d. Create a district-wide program for waste stations and signage with food container (boat) stacking and reusable silverware in all elementary schools and expand the program to middle school by 2025

- Research and create standardized waste stations at schools
- Design a training program for staff, including custodial and nutrition, on the cafeteria program for waste reduction and how to manage stations and prevent the loss of silverware
- Develop standardized signs for waste and recycling containers (including wall signs) to be used in all common areas, classrooms, and non-school facilities throughout the district
- Increase recycling and decrease waste generated at extracurricular events
- Work with IT and students to create QR scan programs for events to decrease paper trash from tickets and programs
- Develop standardized signs for waste and recycling containers at school athletic events and a standard plan for clean-up



12e. Incorporate resource conservation into the jobs of all custodial staff

- Add sustainability support in the job description of custodial staff
- \cdot Train custodial staff regularly about changes in the waste stream
- Work with custodial staff and student leadership groups to increase redeemable container recycling

12f. Explore reuse of discarded textbooks

12g. Increase schools education and participation in locker/desk clean out to decrease waste in schools and conserve supplies

12h. Elementary schools will participate in and educate students and staff in the Golden Dustpan program



Decrease waste generated from school meal program

Strategies

13a. Implement food waste reduction programs

- Evaluate lunch schedules at sites to determine the feasibility of moving lunchtime after recess
 - o Provide studies to the administrators with the goal of recess then lunch at schools across the district by 2025
 - o Implement food reduction tools for Nutrition Services staff
 - o Use appropriately sized pans for offering carts
 - o Use forecast model to reduce entree waste to 5%
 - o Staff will follow proper meal specifications
 - o Utilize the "No Thank You" bins at all sites and educate students on how to use them
- Educate students about portion size including; taking only what they will eat, serving size, offer versus serve, food sourcing, and nutrition. Use the cafeteria as an extension of the students learning about sustainability and health
- Provide opportunities for Green Teams and Sustainability Advisors to complete food waste audits
- Evaluate software programs to minimize waste in the production kitchen
- Explore available opportunities for food recovery programs

13b. Pursue commercial composting options

- Evaluate and implement composting options at the production kitchen
- Evaluate feasibility and cost effectiveness of composting options at other sites



Decrease waste associated with new buildings, additions, and renovations

Strategies

14a. Require contractors to create a Construction Waste Management Plan (CWMP) on all jobs. CWMP must include at a minimum:

- 1. A listing of materials or material categories that will be generated during demolition and construction and whether materials will be salvaged, recycled, or landfilled.
- 2. Source separation (bins or staging areas) for wood, metals, rock/masonry, and cardboard.
- 3. The processes and procedures that the Contractor will use to ensure construction waste will be diverted from the landfill to reuse or recycling according to the CWMP.
- 4. Keep records to track quantities by volume of material that is landfilled, salvaged, or recycled.
- 14b. Add hand dryers bathroom renovations and new building development when possible

14c. Add bottle filling stations in all district owned schools by 2025

14d. Design new buildings to have available space for dumpsters, commingled recycling, cardboard and compost



Reduce the use of toxic chemicals

Strategies

15a. Use non-toxic products when possible

- · Implement ionized water cleaning system and microfiber towels in all facilities including kitchens
- Develop a "Green Back to School" guide
- Eliminate use of disposable wipes and non-approved cleaners in classrooms
 - o Educate staff and parents about the rationale for using district-approved cleaners to eliminate use of disposable wipes and non-approved cleaners
- Minimize the use of toxic chemicals in fleet vehicle garages

15b. Minimize the use of toxic chemicals in grounds maintenance

- Continue to implement the Integrated Pest Management plan (IPM)
- Research and pilot the fiscal sustainability of organic fertilizers or compost

15c. Audit school lab chemicals and plan for proper disposal

