



OYSTER RIVER  
COOPERATIVE  
SCHOOL DISTRICT

# Sustainability Management Plan

August 2021

# S H I N I N G O O N

01.  
Executive Summary

02.  
Introduction

03.  
Letter from the  
Superintendent

04.  
ORCSD At A Glance

05.  
Sustainability Vision  
and Value Statements

06.  
Sustainability Highlights

08.  
Methodology

09.  
Plan Overview

10.  
Framework

11.  
Focus Areas

14.  
Energy

20.  
Construction and  
Land Use

24.  
Waste

29.  
Health and Wellness

32.  
Transportation

36.  
Diversity, Equity, and  
Inclusion

38.  
Curriculum

42.  
Next Steps and Closing  
Statement

43.  
Acknowledgements

44  
Appendices

# EXECUTIVE SUMMARY

## Our climate is changing

2020 was the hottest year on record and had the most severe climate catastrophes in the last 100 years.<sup>1</sup> Carbon emissions are drastically increasing, pushing our globe to the brink.<sup>2</sup> In New Hampshire specifically, warmer winters and increasing in annual temperature is following periods of prolonged droughts and increase severe weather events<sup>3</sup>. In addition, rising sea levels are eroding wetlands and damaging infrastructure.<sup>4</sup> It is time to take action, and Oyster River Cooperative School District (ORCSD) is stepping up to the challenge.

---

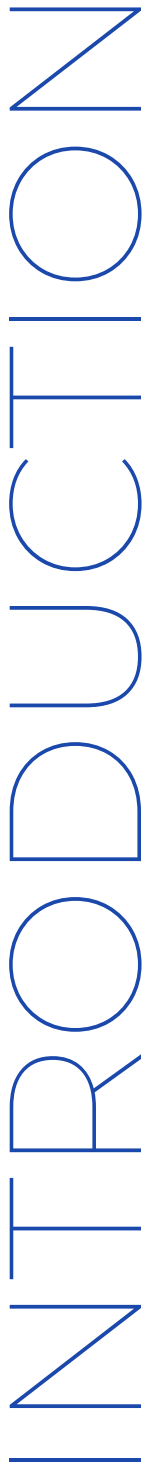
In this sustainability management plan, ORCSD is committed to drastically cutting down on its carbon emissions, educating its students and school community about how to make sustainable choices, and paving the way for a more sustainable future. In this report, ORCSD has 7 focus areas in which they have set goals and strategies to tackle the most pressing sustainability issues. These focus areas include energy, waste, construction and land use, health and wellness, transportation, DEI (diversity, equity, and inclusion), and social justice curriculum. This plan outlines the goals in these focus areas for the next 5-10 years and explains strategies the school district will take to reach the stated goals.

In the last several years, the ORCSD called out the need for a sustainability management plan within their districts strategic plan. This document celebrates past sustainability accomplishments, highlights current initiatives within the school, and creates a roadmap of where we still need to go. Grounded in the United Nations Sustainable Development Goals as well as the ORCSD Sustainability Policy and Strategic Plan, this management plan is answering the call to save our planet and be more sustainable. Most importantly, the plan will be utilized as a learning tool and spells out strategies to prepare students to be more empathetic, well-informed, and prepared for an uncertain climate future.

Footnotes:

1 and 2: <https://www.nasa.gov/press-release/2020-tied-for-warmest-year-on-record-nasa-analysis-shows>

3 and 4: <https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-nh.pdf>



# About the Oyster River Cooperative School District

The Oyster River Cooperative School District (ORCSD) is comprised of four schools in the towns of Lee, Durham, and Madbury in New Hampshire. ORCSD was founded in 1954 and is one of the oldest cooperative school districts in the state. The school has grown to serve over 2,000 students and employs over 400 individuals. Within ORCSD, there are two elementary schools (grades K-4), one middle school (grades 5-8), and one high school (grades 9-12).

In 2013, taxpayers from the three towns voted to approve a sustainability coordinator to draft new sustainability policies and procedures. Over the past 9 years, ORCSD has made significant progress in creating a more sustainable school district. In the most recent district wide strategic plan, the need for a sustainability management plan was addressed.

Within the past several years, ORCSD has made several strides in preparation for a sustainability management plan. This includes composting on their campuses, conducting a greenhouse gas inventory, and several energy efficiency projects. Most recently, ORCSD wanted to set more strategic sustainability goals and create strategies to hit certain sustainability targets. The following sustainability management plan was carefully constructed to propel ORCSD in a more sustainable and resilient direction.



# LETTER FROM THE SUPERINTENDENT

---

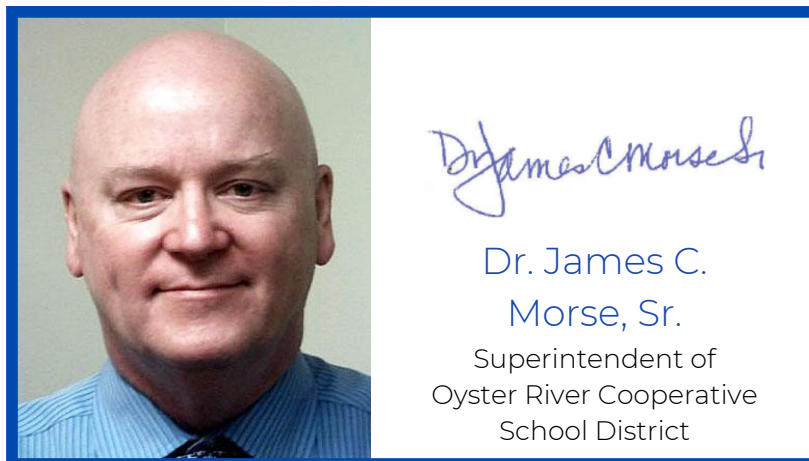
Dear ORCSD Community,

Nine years ago, Oyster River adopted a policy on Sustainability. The policy was a result of concerted community efforts supporting sustainability. We recognized that the school district had a role to play. Since then we have actively engaged our students in sustainability efforts from school gardens, to waste awareness, to an ongoing student committee at our high school. Our faculty and staff have been terrific stewards of this effort.

Operationally, every decision made has been made through the lens of sustainability. We have completed several lighting retrofits, made conscious efforts to reduce water waste, bought highly energy-efficient copiers, and cut down on copier use. We also installed new highly efficient furnaces and ensured they run at maximum efficiency.

The culminating effort is now being built, a new middle school to be net-zero. To that end, the building will have geothermal heating and cooling, solar panels, LED lighting, all in a super-insulated building. The new middle school will be the first public school of its size to achieve net-zero.

The ORCSD is committed to our efforts on sustainability now and into the future.

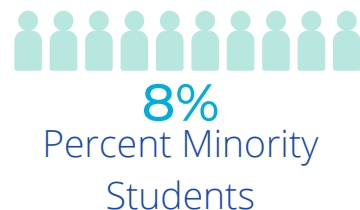
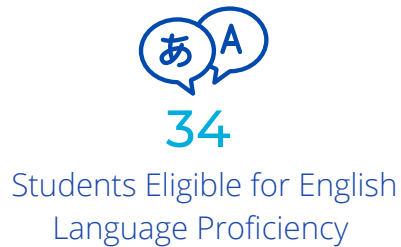
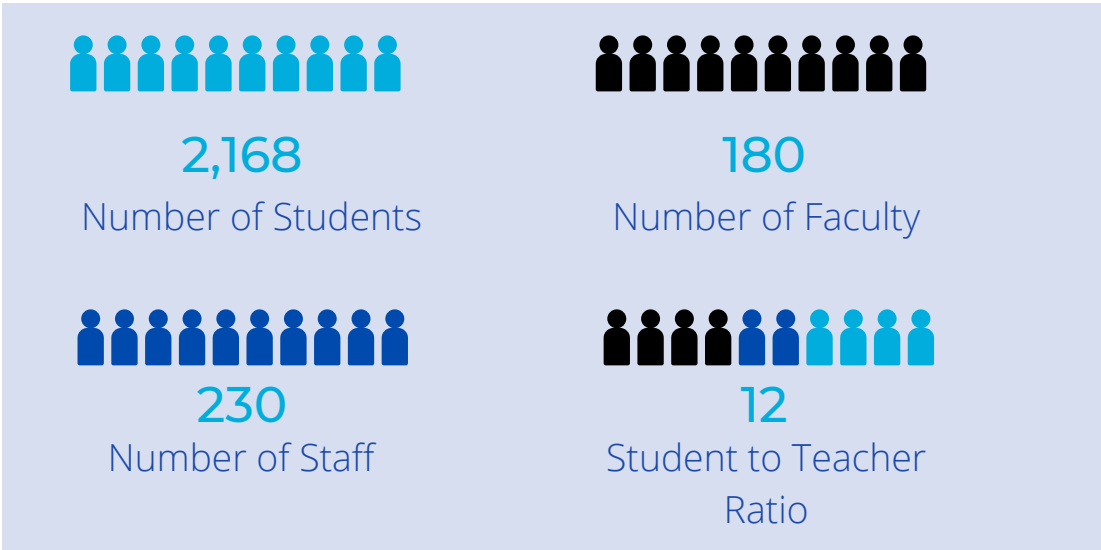


### ORCSD Mission Statement

"Working Together to Engage Every Learner"

### ORCSD Vision Statement

*ORCSD is a place where students, parents, staff and community members' work together to foster a life-long passion for learning and engage all students in developing the skills and knowledge they need to further their education; participate as citizens, succeed in the work-place; live healthy lives; and, thrive in the 21st century. In the ORCSD students, teachers and community members take pride in our schools and understand that each of us has a role to play in ensuring their success. We create safe, stimulating learning environments where all students are challenged and excited by the opportunities to learn; where students and teachers alike feel it is safe to take creative risks; and where every member of our community is known and valued. During their time at ORCSD students become strong, independent, critical thinkers with a commitment to living ethically and a belief that each of them can and should make a difference in our world.*



In 2011, the Sustainability Committee, comprised of students, faculty, staff, and other community members voted on the approval of the following vision and value statements. 10 years later, these value and vision statements are still the guiding principles for the sustainability work that has been completed over the past 10 years.

## Sustainability Vision Statement

---

*The Oyster River Cooperative School is committed to integrating sustainable practices. This will be demonstrated by our leadership and resolve to educate the ORCSD community to advocate for sustainable living.*

## Sustainability Value Statements

---

1. The Oyster River Sustainability Committee serves as a community change agent, dedicated to planning long-term sustainability initiatives that engage members of the Oyster River Cooperative School District Community and the towns of Durham, Lee and Madbury.
2. We are committed to establishing and nurturing resilience (the capacity to adapt and grow when faced with turbulent changes) within our communities. Resilience and short-term efficiency are often at odds. Sustainability requires that resilience prevail.
3. We are committed to promoting cooperation and acknowledging interdependency as we proactively address issues in our ecological, economic, and social systems.
4. We are committed to appreciating and preserving the natural beauty of our local and global communities.
5. We are committed to achieving both quantitative and qualitative measurable sustainability outcomes, leading to recommendations in serving a diverse audience through careful listening, critical thinking, and community-based engagement.
6. We are committed to educating ORCSD students and the greater ORCSD community about sustainability, using knowledge in making conscious choices and providing creative solutions in support of a healthy and vibrant life for present and future generations.
7. We are committed to having fun, working hard, and celebrating our shared love of New Hampshire's mountains, forests, farmlands, pastures, rivers, streams, wetlands and open spaces that contribute to inspiring our work and quality of life.
8. We are committed to the task of achieving goals in the areas of local food, school gardening, food preparation and nutrition, energy usage in facilities and transportation, and educational outreach, and to the integration of all of these within school curricula.

# SUSTAINABILITY HIGHLIGHTS AND EXISTING EFFORTS

For the past several years, ORCSD has been incorporating sustainable practices into the district. Here are several highlights of projects the district has achieved:

Project	Impact
Curriculum gardens (2012)	<ul style="list-style-type: none"> <li>• Curriculum gardens began as a teaching resource for students to learn about food systems.</li> <li>• Each school has at least one curriculum garden.</li> <li>• This program once included a community intern to monitor the gardens during summer.</li> </ul>
Integration of local foods in school lunches (2012)	<ul style="list-style-type: none"> <li>• Starting in 2012, ORCSD began purchasing local foods from farms around New Hampshire.</li> <li>• ORCSD partnered with other districts within the region to start a local group purchasing program.</li> <li>• In 2021, ORCSD will begin purchasing local food through a CSA program.</li> </ul>
Composting in Cafeterias (2012)	<ul style="list-style-type: none"> <li>• Composting within the cafeterias started in 2012 and became a district wide practice by 2014.</li> <li>• Currently, the high school composts outside of the dining hall. ORCSD is looking to expand this to all schools within the next several years.</li> </ul>
Solar Array on Service Building (2017)	<ul style="list-style-type: none"> <li>• In 2017, ORCSD installed a 22 kw solar system on the roof of their service building.</li> <li>• Each year, the system will generate roughly 27,750 kilowatt-hours (kWhs) of electricity, offsetting the equivalent of driving over 50,610 miles in a gas-powered car.</li> </ul>



Solar array on service building that was completed in 2017



# SUSTAINABILITY HIGHLIGHTS AND EXISTING EFFORTS

Project	Impact
---------	--------

Building Energy Upgrades (2017)

- ORCSD signed a performance contract to update all lights with LEDs, install motion sensors, and complete other energy efficiency projects.
- This project significantly reduced the amount of energy the district consumed and aided in limiting GHG emissions.

Recycling (Prior to 2010)

- For at least the past two decades, ORCSD has been recycling in all their facilities.
- All offices have separate bins to encourage recycling within the district.
- The school recently installed water hydration systems at all drinking fountains to discourage the use of plastic bottles.

Net Zero Middle School (2022)

- The new middle school is completely carbon neutral and is the first net zero school in New Hampshire. Net zero means that it will offset emissions produced.
- Amongst many of its sustainable features, there will be solar panels on the roof as well as a solar canopy above the parking lot.

Proposed New  
Oyster River Middle School



The proposed new middle school that will be completed by February of 2022.

BAUEN CORPORATION LAVALLEE BRENSINGER ARCHITECTS

# HOW THE SUSTAINABILITY PLAN WAS CREATED



University of  
New Hampshire

## UNH Summer Fellowship

In the summer of 2021, ORCSD partnered with the University of New Hampshire Sustainability Institute to hire a graduate fellow to complete a sustainability management plan. Meg Maloney, the fellow who drafted this plan, had completed a previous sustainability plan for a City of 141,000 residents. Meg spent 10 weeks meeting with stakeholders and collaborating with districts across the county to create this management plan.



## National Stakeholder Collaboration

In the first 3 weeks of the fellowship, all school districts sustainability plans across the US were collected and analyzed. ORCSD ranked their favorite management plans in which Meg conducted interviews with those districts (over 5+ districts) to help understand lesson learned and how to move this plan forward. Meg also collaborated with nationally recognized consultants, attended a green schools conference, and met with several other non-profits.



## Local Stakeholder Collaboration

After the national stakeholder collaboration, Meg met with a group of local stakeholders comprised of community members, teachers, parents, UNH Faculty, non-profits, a School Board Member, District Administration, and the Sustainability Coordinator to create the draft sustainability management plan.



## Synthesizing Information to Establish ORCSD's Sustainability Framework, Goals, and Objectives.

Finally, Meg synthesized all her conversations to distill the sustainability management plan below. Through her conversations, she created ORCSD's sustainability framework and drafted objectives, goals, and strategies based on the previous conversations. Moreover, Meg continuously met with local stakeholders throughout the process to ensure that all goals aligned with the wants and needs of the ORCSD community.

# HOW TO READ THE MANAGEMENT PLAN

The Oyster River Cooperative School District designed this Sustainability Management Plan with the intent of setting strategic objectives, goals, and strategies to make the district more sustainable. The goal of this plan is to be easily digestible, utilized as a learning resource, and updated over time. This management plan is striving to achieve the outlined goals within the next 5-10 years, with some goals continuing past that time frame. Below is the general structure of objectives, goals, and strategies within each focus area.

## TENETS AND SDG'S

At the top of each page, there will be the picture of each Sustainable Development Goal (SDG) that the goals of each focus area are addressing. In addition to the SDG's, the ORCSD Strategic Plan and Sustainability Tenet symbol is listed to serve as a reminder about how each focus area relates back to the strategic plan and sustainability policy. More about the sustainability framework is on the next page.

## OBJECTIVE

Within each focus area, there will be an overall objective that is guiding each goal and subsequent strategies. These objectives will be static and continually a target for the district to achieve.



### Goal

Each goal is a designated action area that ORCSD will strive to achieve by utilizing the strategies that are listed below.



### Strategies

Following each goal, there will be several recommended strategies on how to address the goal listed above. These strategies are essentially the "work plan" for school district to accomplish.



# ORCSD STRATEGIC PLAN: SUSTAINABILITY AT THE CORE OF THE DISTRICT

The ORCSD Strategic Plan is designed to be a roadmap of where the district is now and where it wants to go within the next 5 years. The strategic plan focuses on student growth, operational efficiencies, resources necessary, and a budget that supports the School Board adopted goals.

Each year, the staff will report progress to collect evidence that goals are accomplished. New goals will replace the old goals, creating a cycle of continuous improvement.

The Strategic Plan is divided into various goals- one of which specifically calls out the growth of sustainability within the district. The following goals are to be achieved within the next 5 years.

## Sustainability Education

By June of 2024: K-12 curriculum will embed sustainability concepts and content to promote an understanding of our world's limited resources and promote sustainable practices as well as prepare students for college and careers.

## Sustainability Operations

By 2024, ORCSD will continue to embrace sustainable practices in all decisions made to operate the school and district.

Born out of the ORCSD Strategic Plan was the need for an overall district policy and sustainability management plan to address sustainability. The goal of the sustainability policy was to guide the management plan to achieve goals that were set within the district Strategic Plan.

In the following pages, the overall sustainability framework is explained incorporating the strategic plan, sustainability policy, and Sustainable Development Goals.

FRAMEWORK



# ORCSD SUSTAINABILITY POLICY TENETS

In 2013, the ORCSD passed its first Sustainability Policy. The policy was updated in 2021 and has 5 major core tenets that are driving the growth of sustainability within the district. Each of the focus areas - energy, waste, construction & land use, health and wellness, transportation, DEI, and curriculum are grounded within all the following tenets:

FRAMEWORK



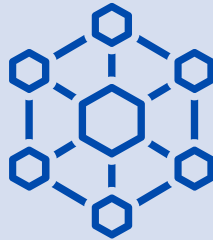
## Renewability

Renewability is focused on promoting renewable energy as well as ensuring that all commitments will continue into the future. ORCSD is committed to ensuring systems within their schools do not deplete resources and lead to a more sustainable future.



## Substitution

Substitution highlights the need to replace current practices with more sustainable alternatives. Throughout each goal, substitution highlights the importance of replacing current unsustainable practices with more sustainable methods.



## Interdependence

Every organism on this planet is intimately dependent on one another. This tenet highlights the importance of thinking more holistically to ensure that each goal and objective takes into consideration the impact on our local and global community.



## Adaptability

A large part of creating a sustainability management plan is ensuring that the community is adaptable and resilient. This tenet ensures that the plan will continually adapt to the ORCSD community and changing global climate.



## Institutional Commitments

The ORCSD Sustainability Management is an institutional commitment built on many smaller commitments within each focus area.



# FRAMEWORK

The Sustainable Development Goals (SDGs), also known as Global Goals, were developed by the United Nations and are a set of 17 integrated and interrelated goals to end poverty, protect the planet and ensure that humanity enjoys peace and prosperity by 2030.

Throughout this Sustainable Management Plan, ORCSD will be grounding its objectives and goals with the Sustainable Development Goals to help align local goals to a global initiative.

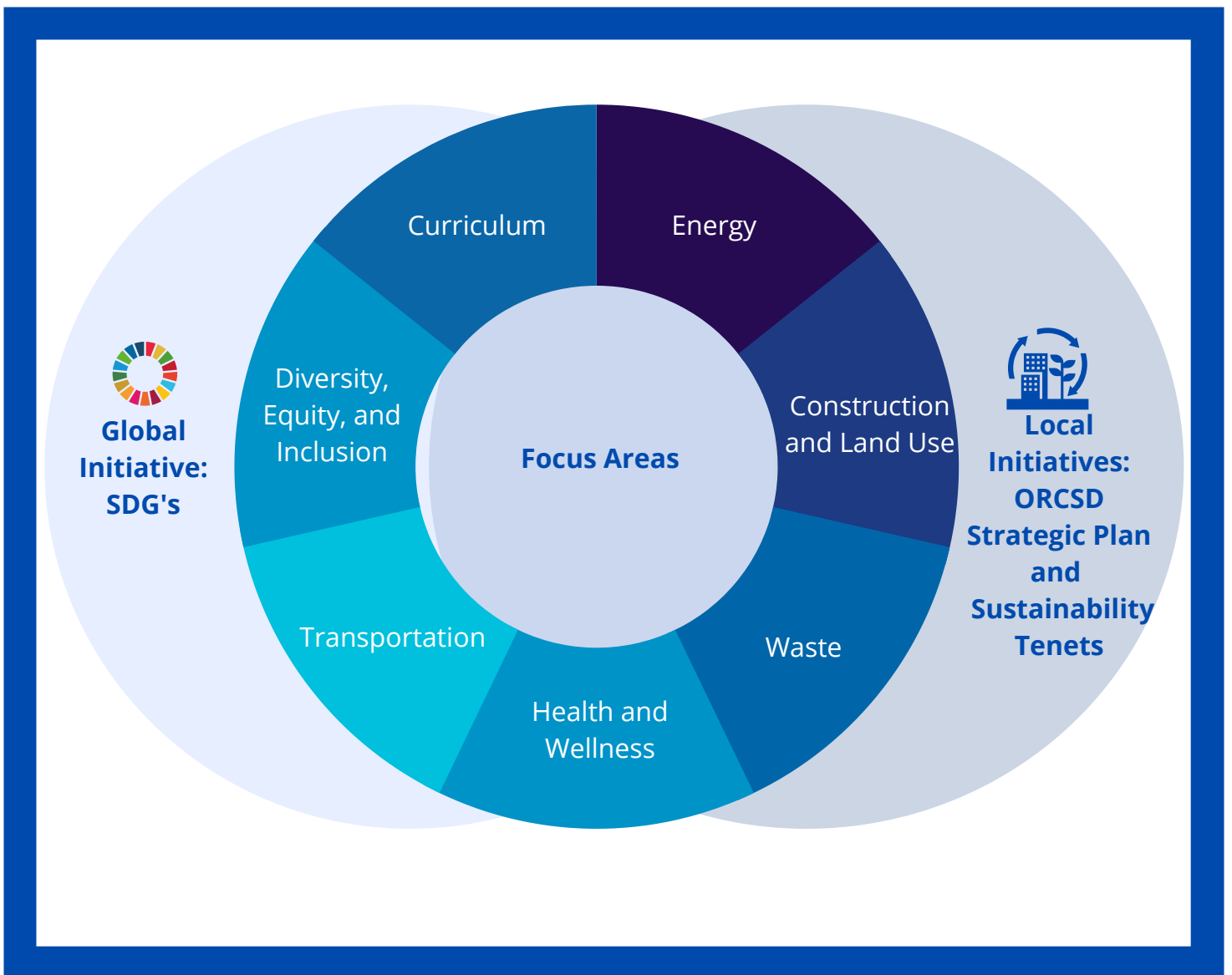
This framework will guide objectives and goals and can be utilized as a learning tool for sustainability curriculum. The SDGs will complement the overall significance of this work within the district and educate students about how to live a more sustainable life that promotes the peace and prosperity of others and this planet.

## SUSTAINABLE DEVELOPMENT GOALS



# FOCUS AREAS

The Sustainability Management Plan is organized by focus areas. Focus areas were identified by engaging with stakeholders and prioritizing the most important areas to work on to achieve sustainability within the district. These focus areas were also chosen to align with other strategic initiatives within the district. Each focus area aligns with multiple SDG's and all the ORCSD Strategy and Sustainability Tenets which are listed in each section.





FOCUS AREA 1

---

# Energy



## ORCSD Energy History

Since 2010, ORCSD has been lowering greenhouse gas emissions and create a more sustainable school district. ORCSD has utilized several mechanisms to improve energy usage and lower greenhouse gas emissions by completing energy efficiency improvements, installing solar panels on the roof of their service center, and conducting energy audits.

In 2012, ORCSD completed its first carbon footprint assessment to understand its baseline energy usage. In 2020, ORCSD completed its first comprehensive greenhouse gas inventory to understand more specifically where the largest sector of emissions was coming from.

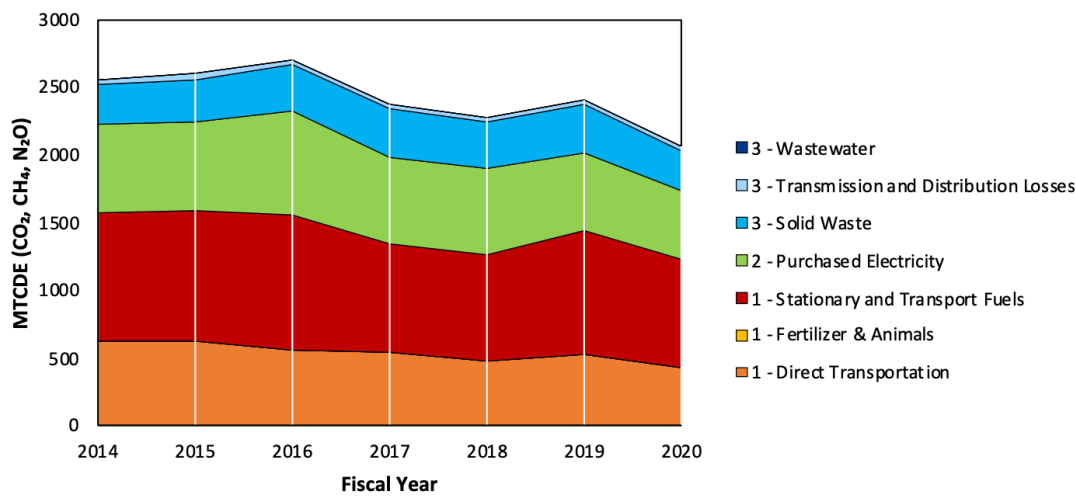


Figure Above: Greenhouse gas emissions from 2014-2020. Emissions were broken up by source and scope (1,2 and 3).

While significant changes have been made, ORCSD wants to set strategic targets in terms of limiting greenhouse gas emissions and improving overall energy usage. ORCSD felt the need to create a strategy to more specifically target limiting energy usage and greenhouse gas emissions. Using the previous greenhouse gas inventory and comparing emission and usage to other similar buildings within the region, ORCSD has set the following goals and strategies to limit energy usage.

## Benefits and Key Performance Metrics

The strategies listed in this focus area will help save ORCSD money on energy costs each year, improve air quality, and conserve water. To ensure progress in being made for each of the following goals listed below, the ORCSD Facilities Manager will make an annual report. The metrics will measure energy usage and carbon emission using the reporting tools EPA Energy Portfolio Manager and SIMAP (Sustainability Indicator Management and Analysis Platform).



# OBJECTIVE:

## LOWER OUR GREENHOUSE GAS EMISSIONS BASED ON BUILDING TARGETS

**GOAL 1** . Lower electric usage based on the following building targets: For Moharimet Elementary school, lower source energy consumption by 1 kBtu/ft<sup>2</sup> for the next 5 years and GHG emissions by 1 Metric Ton CO<sub>2</sub>e for 5 years. For Mast Way, lower source energy by 2-5 kBtu/ft<sup>2</sup> for the next 10 years, and total GHG by 2-5 Metric Ton CO<sub>2</sub>e.

### Strategies:

- 1.1. Once the middle school and high school renovations are complete, set a yearly energy target based on energy portfolio manager goals.
- 1.3. Conduct an ASHRAE level II audit which includes evaluating plug load, lighting, water, and building envelope. Explore a performance contract in order to fund upgrades recommended in the audit.
- 1.4. In tandem with the energy audits, create an energy reduction plan.
- 1.5. After evaluating plug loads, encourage areas with high plug loads to reduce load by unplugging devices that are not used frequently or are constantly running when they are not needed. This includes working with IT to create a program to shut down technology that is not being used.



## OBJECTIVE: **LOWER OUR GREENHOUSE GAS EMISSIONS BASED ON BUILDING TARGETS**

**GOAL 1 :** Lower electric usage based on the following building targets: For Moharimet Elementary school, lower source energy consumption by 1 kBtu/ft<sup>2</sup> for the next 5 years and GHG emissions by 1 Metric Ton CO<sub>2</sub>e for 5 years. For Mast Way, lower source energy by 2-5 kBtu/ft<sup>2</sup> for the next 10 years, and total GHG by 2-5 Metric Ton CO<sub>2</sub>e.

### Strategies:

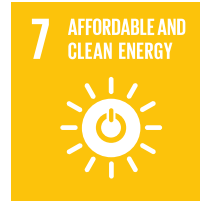
1.6. Explore creating more efficient HVAC set points and a schedule (by 1 or 2 degrees) to ensure energy is being saved. Explore adding SMART technology (CO<sub>2</sub> sensors) to each room to have an automotive system to save energy.

1.7. Continue to replace any non-LED lighting with LED.

1.8. Continue to explore and utilize local utility rebates to find rebates to put toward energy efficiency projects.

1.9. When roofing updates are needed, explore replacing roofs with solar or a white, tan, or silver roof.

1.10 Explore declaring a climate emergency as a district to set more aggressive goals (as seen in Appendix C) to lower greenhouse gas emissions.



## OBJECTIVE:

# LOWER OUR GREENHOUSE GAS EMISSIONS BASED ON BUILDING TARGETS

**GOAL 2 : At least 25% of ORCSD procured energy usage should be derived from renewable sources by 2025**

**Strategies:**

1.11. When the energy supply contract ends, explore changing energy suppliers with a renewable energy source.

1.12. Explore adding renewables to more buildings and creating a strategic plan for renewable additions. This includes always evaluating roofs for solar when any roofing updates are occurring and adding solar canopies to parking lots.

**GOAL 3 : Decrease usage and reliance on natural gas**

**Strategies:**

1.13. Consider replacing natural gas boilers with more efficient condensing boilers or an electric system.

1.14. Create a more strategic set point for natural gas systems in the winter. This includes reducing the temperature by 1-2 degrees.

1.15. Create a goal for natural gas usage. Determine this goal based on building averaging natural gas usage for each school over the past 2-3 years and decreasing it by 10% each year with designated setpoints.



OBJECTIVE:  
**LOWER OUR GREENHOUSE GAS EMISSIONS BASED ON BUILDING TARGETS**

GOAL 4: **Curb water consumption throughout the district.**

**Strategies:**

1.16. Continue to replace water inefficient systems with low flow systems. Explore placing low flow systems in classrooms, the kitchen, and other areas aside from bathrooms.

1.17. Evaluate irrigation practices to see if watering can occur on a more infrequent schedule.



*Solar array on service building that was completed in 2017*



FOCUS AREA: 2

---

# Construction & Land Use

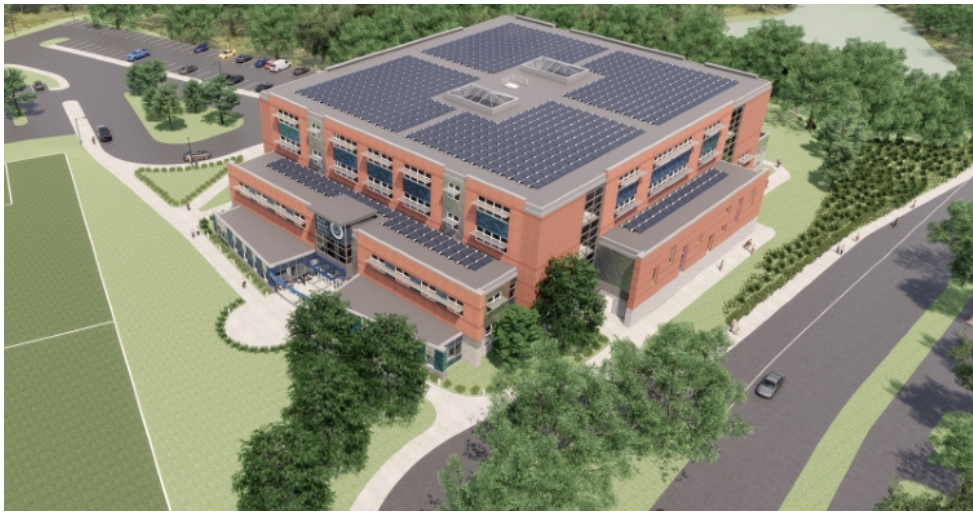
# ORCSD Construction and Land Use History

## Construction

For the past several years, ORCSD has completed several renovations and began major construction projects to make the district more sustainable. In 2017, ORCSD started replacing all lights within the district with LEDs. This greatly improved their greenhouse gas emissions and set a precedent for the district to continue sustainable upgrades. One of the most exciting projects is the new middle school, which will be net-zero. As a net-zero school, it will negate the amount of greenhouse gases produced. This will be the first net-zero school within the state of New Hampshire, and will greatly reduce the overall greenhouse gas emissions for the district.

## Land Use

New Hampshire is the second most forested state within the United States. With over 80% of forest cover, the preservation of land is a priority for the district. Most recently, the district established some land-use targets when building the new middle school. For example, for all the trees that needed to be cut down for construction, they are going to replace them with native trees of New Hampshire.



*A digital rendering of the new middle school which will be completed in February of 2022. On the roof, approximately 665 solar panels will offset the energy demand of the building*

While ORCSD is making significant progress in terms of sustainability goals for construction and land use, there is still a long way to go. The following objectives, goals, and strategies are creating a strong plan to ensure sustainability is at the forefront moving forward.

## Benefits and Key Performance Metrics

There are numerous benefits of improving construction and land use such as increase in biodiversity, energy savings, and safer school environment for students. To measure performance of construction and land use, the Facilities Manager will report progress of construction projects by calculating waste diversion rates, energy savings, and LEED standards. For land use, the Facilities Manager will track carbon emissions saved by reporting into SIMAP.



## OBJECTIVE:

# LOWER OUR GREENHOUSE GAS EMISSIONS THROUGH SUSTAINABLE DESIGN

## GOAL 1 : Use sustainable designs as part of all new construction projects and renovations.

### Strategies:

2.1 Develop a building maintenance and sustainability plan to ensure that all new projects are following sustainability guidelines that are agreed upon by the district.

2.2 For each new building renovation or construction project, follow green building guidelines such as LEED, Energy Star, or other comparable organizations guidelines.

2.3 Continue to explore Net-Zero design and try to incorporate Net-Zero upgrades within buildings.

2.4 Inventory existing appliances and update aged appliances with energy star-rated appliances.

2.5 When updating buildings, try to reuse or divert waste from landfills. This includes repurposing existing materials or recycling materials that cannot be used in the design.

2.6. Add ability for new roofs to be able to add solar in the future, even if not feasible at the current time.





## OBJECTIVE:

# LOWER OUR GREENHOUSE GAS EMISSIONS THROUGH SUSTAINABLE DESIGN

## GOAL 2: Improve the district's land use practices in order to create more friendly landscapes for native organisms.

**Strategies:**

2.7. Create a tree plan or policy to put more sustainable practices of tree maintenance and plantings in place. This includes ensuring any tree that is cut down is replaced by a native tree and that there is a greater diversity of trees.

2.8. Replace current herbicide/pesticides with more pollinator friendly and organic products.

2.9. Purchase organic and composted mulch from a local vendor to cut down on carbon emissions.

2.10. Continue incorporating natives in landscape practices. Try to achieve 80% native plants by 2030 on all new landscape practices.

2.11. Try to incorporate plants that can tolerate dry soils to encourage water conservation.

2.12. Plant native friendly grass to promote pollinators and decrease the number of spaces that do not promote species diversity.

2.13. Evaluate current mowing practices to see if the district can mow less frequently to cut down on carbon emissions and save money.



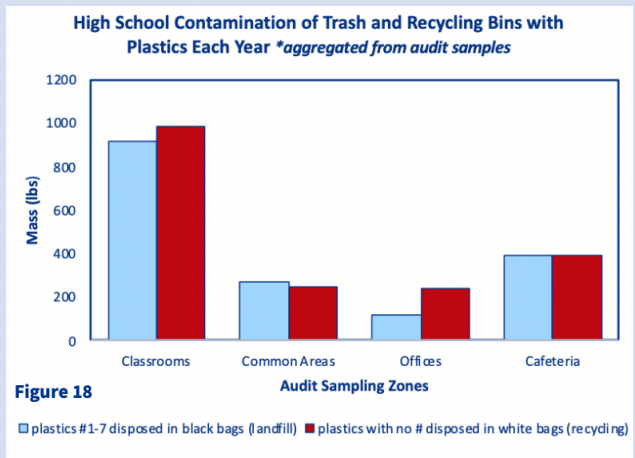
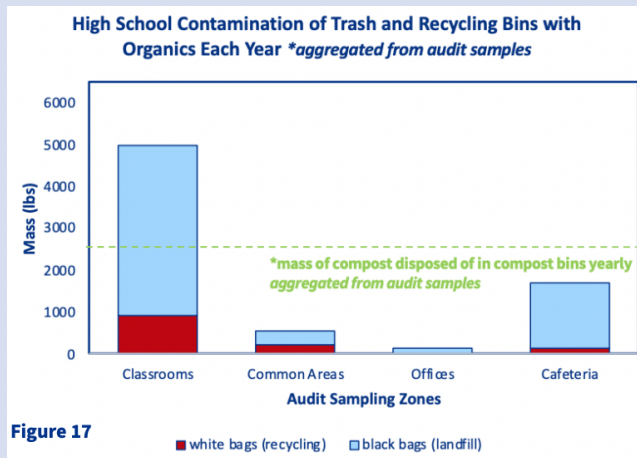
FOCUS AREA: 3

---

# Waste

# ORCSD Waste History

ORCSD has done many events in the past to promote education on proper waste disposal and to improve waste diversion goals. In previous years, the middle school led several educational events to have students track their waste usage and show how they can reduce the amount of waste that goes into landfills. Moreover, before the COVID-19 pandemic, ORCSD began to audit their waste within the high school to try and expand sustainable waste practices. This included completing a comprehensive waste audit, educating the student body about how to dispose of waste properly, and limiting the amount of waste that goes to landfills. Unfortunately, these efforts were halted due to the COVID-19. The Sustainability Management Plan seeks to pick up where these efforts left off by setting goals to encourage more sustainable waste practices.



The figures above show waste contamination found within trash and recycling bins from the 2020 High School Waste Audit. The figure on the left (Figure 17) depicts the amount of organic material that could have been composted found within trash and recycling bins. The figure on the right (Figure 18) plastic contamination found in waste bins.

## Benefits and Key Performance Metrics

There are several benefits to waste diversion including cost savings through lowering waste hauling and using compost as fertilizer. Waste diversion rates, composting, and diverted carbon emissions through waste reduction will be tracked through the Facilities Manager using the SIMAP tool.



The picture above are students who participated in the high school waste audit in early 2020.



## OBJECTIVE:

# REDUCE OVERALL WASTE THAT ORCSD GENERATES OVER THE NEXT 10 YEARS.

## GOAL 1: Complete waste audits in each school to understand waste composition and create a diversion goal.

### Strategies:

- 3.1. Determine how much material is going to landfills that could have been recycled or composted at each school. This can be done through a waste audit. Ensure student participation in waste audit.
- 3.2 Set a diversion rate that each school should achieve for the next 5-10 years. Create a rate that is achievable by 2040 and add to Appendix A.
- 3.3. Create a drop off area for students and school community to recycle batteries, electronics, and other items that can cause harm to a landfill. Do more targeted education to inform students and school community about the drop off areas.

## GOAL 2 : Create a sustainable purchasing strategy that is focused on reducing single use and plastic waste

### Strategies:

- 3.4. Encourage reuse by changing purchasing standards to buy items that are compostable or reusable. This includes compostable forks in the kitchen, reducing condiment waste, compostable bags, reusable school supplies (such as reusable expo markers), and create a shared space among teachers where they can reuse/share supplies.
- 3.5. Ban the use of purchasing Styrofoam within the district.



## OBJECTIVE:

# REDUCE OVERALL WASTE THAT ORCSD GENERATES OVER THE NEXT 10 YEARS.

## GOAL 3 : Create programs that teach about how to divert waste from landfills.

### Strategies:

3.6. Create an education program that informs students about how to compost and recycle at school. Some examples include curriculum discussed during time with mentor or a waste sorting game in PE classes. Explore partnering with students from UNH Sustainability Institute to facilitate education programs.

3.7. Get consistent signage for compost, recycling, and waste bins for each classroom after achieving zero contamination in compost within the cafeterias.

3.8. Create zero waste sports events once a year to train students and parents about how to divert waste from landfills.

3.9. Create district wide waste signage consistency for recycling, compost, and trash.

## GOAL 4 : Achieve a waste diversion rate over 50% for new construction, renovations, and ground projects.

### Strategies:

3.10. Achieve a 50% diversion (Tier 1 of LEED Standards) for all new construction and renovation projects. Try to increase this percentage to 75% by 2050.



## OBJECTIVE:

# REDUCE OVERALL WASTE THAT ORCSD GENERATES OVER THE NEXT 10 YEARS.

## GOAL 5: Create a strategic plan to reduce food waste within the kitchens and cafeterias.

### Strategies:

- 3.11. Continue exploring ways to purchase local food for the school district.
- 3.12. Organize a "waste-free" lunch during the school year throughout the district.
- 3.13. Continue to evaluate ways to cut food waste within the cafeteria and teacher sponsored events. Create a concrete plan to strategize waste reduction.

## GOAL 6 : Explore On-Site Composting

### Strategies:

- 3.15. Trial on site composting from food waste within the kitchen. Use this trial to see how much compost can be generated.
- 3.16. Explore grants or other funding mechanisms to purchase an In-vessel or similar composting system to make composting easier for the district.



FOCUS AREA: 4

---

# Health & Wellness

## ORCSD Health and Wellness History

---

Within the past several years, ORCSD has been working to improve the overall health and wellness of the students, faculty, and staff within the district. This included targeted programming within their strategic plan and have implemented a variety of programs pre-COVID. For example, ORCSD recently had teachers and staff meet in small focus groups to discuss emotional well-being. These focus groups were especially useful during the pandemic. Moreover, ORCSD is taking proactive steps to address student's mental health including screenings at school to determine if students need more resources as well as a social-emotional subcommittee at the elementary schools to provide resources to students.

For the past decade, ORCSD has also had a child nutrition program deeply rooted in sustainable principles. For the School Breakfast Program and National School Lunch Program, ORCSD tries to source as much food as possible through local farmers, utilizes bulk cooking at the high school to minimize waste between all district schools, and freezes produce to ensure reuse in the future. Some of these practices, such as the bulk purchasing of local food, set a precedent for the region as many schools have adopted similar policies since this was enacted at ORCSD. ORCSD has been taking strategic steps to be more conscious of the health and wellness of their community, however there is still a long way to go. Especially during the COVID-19 pandemic, ORCSD is working to expand mental and emotional well-being programs as well as grow their child nutrition program to incorporate more sustainability elements.

## Benefits and Key Metrics

---

Enhancing the health and wellness program will create a healthier, more resilient community. In addition, several parts of this program will generate cost savings for the child nutrition program. To track performance in health and wellness, the wellness committee as well as the Child Nutrition Director will aid in reporting educational programming, waste diversion, student engagement, and percent of food sourced locally to SIMAP.



*Farmer Delivers Vegetables to Moharimet School*





# OBJECTIVE: PROMOTE THE OVERALL MENTAL, PHYSICAL, AND EMOTIONAL WELL-BEING OF THE STUDENTS, FACULTY, AND STAFF.

## GOAL 1: Promote the overall health and well-being of students within the district.

### Strategies:

- 4.1. Improve child nutrition program by adding cooking workshops to each of the schools within the district.
- 4.2. Explore growing salad greens within each of the curriculum gardens at the schools. Explore teaching kids how to grow your own food. If a child is unable to grow food at home, lend space in curriculum gardens for children/families who are interested.
- 4.3. Partnering with UNH to aid in nutritional programming
- 4.4 Continue exploring programming to teach kids how to deal with emotional and mental stress in a productive way. This can aid in a proactive approach to education about climate change.
- 4.5. Try to incorporate more movement based and outside learning into the curriculum to encourage a healthy relationship with our bodies and the environment.

## GOAL 2: Promote overall health and well-being of faculty and staff within the district.

### Strategies:

- 4.6. Continue hosting workshops and focus groups that encourage better mental and emotional health for faculty and staff. Explore adding mental health services for staff.
- 4.7. Continue to educate staff about how to incorporate teaching about emotional and mental well-being for students.



FOCUS AREA: 5

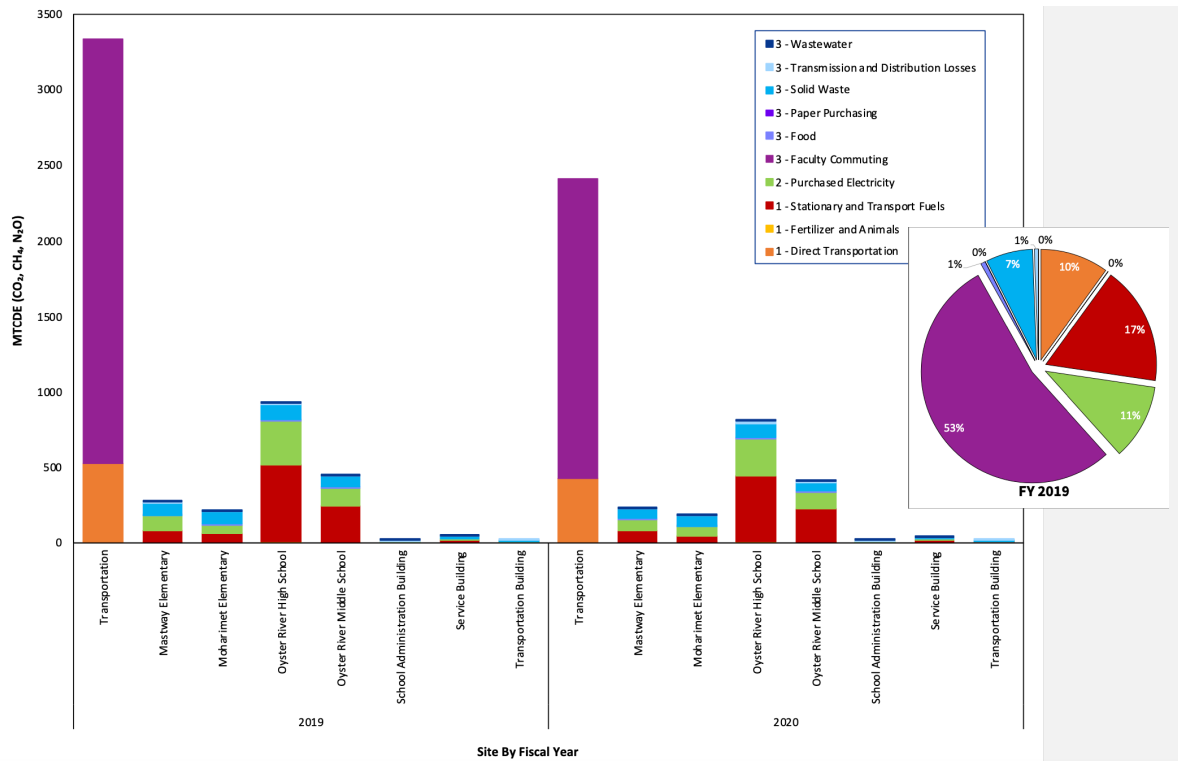
---

# Transportation

# ORCSD Transportation History

ORCSD has undergone many progressive changes over the last several years in terms of sustainable transportation. In the early 2000s, a student and parent-led initiative created a no bus idling policy. In recent years, the district has been exploring the possibility of adding electric buses to their fleet and encouraging more students to take alternative transportation to school.

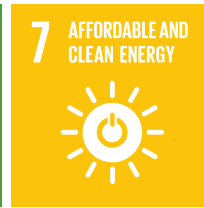
In the 2020 ORCSD Greenhouse Gas Inventory, transportation was the highest sector of emissions within the school district. ORCSD seeks to adapt strategies that will aid in lowering greenhouse gas emissions to hit more sustainable targets.



The figure above shows metric tons of GHG emissions for FYs 2019 and 2020 across district site (left). Metric tons of GHG emissions for FY 2019 by source for entire district (right). Faculty Commuting and Transportation (the largest emitters) is seen in purple and orange.

## Benefits and Key Performance Metrics

There are several benefits to improving transportation at ORCSD including minimizing greenhouse gas emissions, creating safer routes to school for families, improving air quality, and generating cost savings for converting fleet to electric. ORCSD will track the amount of students, faculty, and staff that are taking alternative transportation to work as well as the carbon emissions associated with the school's vehicle fleet. The carbon emissions will be reported in SIMAP by the Transportation Director.



## OBJECTIVE:

# REDUCE TRANSPORTATION EMISSIONS BY 2% EACH YEAR.

## GOAL 1 : Reduce single staff, student, and parent occupancy trips by 10% by 2030.

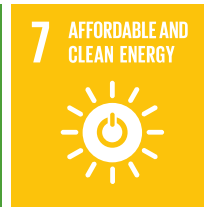
### Strategies:

- 5.1. Explore ridership software to encourage more students to carpool. This includes working with the IT department to host the software.
- 5.2. Improve the safety of students walking to school through a transportation safety master plan. Partner with the local partners to explore biking initiatives.
- 5.3. For students in the walking zone, have a more targeted education program or initiatives to encourage walking or biking.
- 5.4. Redo the transportation survey for faculty, staff, and students to get a more accurate transportation emissions in SIMAP.
- 5.5. Work with local partners to establish a better biking map that includes bike routes and where bike parking is available.
- 5.6. Limit parking passes or disallowing parking in certain areas at the high school to get more students to carpool.
- 5.7. Explore ways to encourage more students to take buses if eligible.

## GOAL 2 : Establish stricter idling policies.

### Strategies:

- 5.8. Create idling signage at drop off areas and assign an employee to try and enforce cars to participate.



OBJECTIVE:

# REDUCE TRANSPORTATION EMISSIONS BY 2% EACH YEAR.

**GOAL 3 : Increase the number of electric vehicles used by the ORCSD Community**

**Community**

Strategies:

5.9. Convert fleet to an all-electric fleet by 2035, including buses and vans.

5.10. Offer electric charging stations for electric vehicles in all parking lots or at least one charging station per school.



*Placing more electric vehicle charging stations, similar to the one pictured here, will help incentivize more faculty/staff to drive electric vehicles to school.*



FOCUS AREA: 6

---

# Diversity, Equity, & Inclusion



## ORCSD Anti-Racism Initiatives

Sustainability and DEI (diversity, equity, and inclusion) are deeply interwoven. A school district cannot be sustainable without addressing issues regarding DEI. Within the past several years, ORCSD has taken several large strides to integrate DEI work into the school district. There are several initiatives the school district has done including DEI training and conversations for faculty, staff, and students, the formulation of an equity and anti-racism committee, and an anti-racism policy. In addition, much like sustainability, DEI is woven into the strategic plan with a goal of advancing several initiatives by 2024. These initiatives includes expanding K-12 curriculum to include DEI competencies, inclusive hiring, implementing restorative justice practices, inclusive co-curricular activities, and community engagement on equity and inclusion.

ORCSD believes that the sustainability policy supports integration of cultural, social, economic, and environmental justice. ORCSD has started several initiatives to promote environmental justice including the following projects:



### Environmental Justice Projects

- Exploring equitable transportation to and from school.
- Supporting parents and students from different cultural backgrounds.
- Working with food groups within New Hampshire to ensure all students and families have access to nutritious and local food.
- Raising awareness about environmental issues within the community
- Continuing anti-racism work within the strategic plan.

Much of work around diversity, equity, and inclusion is still being developed. Over the next year, more actionable work will be included in the sustainability management plan and will be shared.



FOCUS AREA: 7

---

# Curriculum Development



## Sustainability Curriculum Development

---

Sustainability curriculum is one of the most important aspects of a sustainability management plan. For students to fully understand the importance of the initiatives happening around them, they need to be educated about why these initiatives are happening in the first place. Each year, students graduate from high school and are ill-prepared for the realities of climate change. Climate change impacts every facet of a person's life, whether they realize it or not. ORCSD understands the importance of holistic education and preparing the students for a future with climate uncertainty. Therefore, in recent years, ORCSD wanted to adopt a plan on how to incorporate a sustainability curriculum throughout the district.

After interviewing the most sustainable K-12 districts nationwide, the sustainability curriculum recommendation plan was created based on the conversations with these districts. This set of recommendations is also deeply tied with social, economic, and justice initiatives that are presented within the strategic plan. This plan incorporates marrying multiple initiatives taking place within the strategic plan to create a more holistic plan that incorporates a more broad view of sustainability.

Lastly, sustainability curriculum integration also aligns with current initiatives in the high school called "Vision of the Graduate." The idea behind the vision of the graduate is that all high school students will leave ORCSD with an awareness of self, awareness of others, and transferable knowledge and skills. Sustainability directly intertwines with these three focus areas and can be married into the vision of the graduate program.

## Benefits and Key Performance Metrics

---

There are several benefits to incorporating sustainability curriculum within the district. Most importantly, ORCSD will be better preparing students to deal with climate change and live sustainable lives once they leave ORCSD. Sustainability curriculum also teaches empathy, kindness, and critical thinking. To ensure that sustainability curriculum is being adequately integrated, the district will measure student and faculty progress of integration. After the curriculum plan is created and initiated, students will take annual surveys to ensure comprehension. Moreover, faculty will also take surveys to ensure a seamless transition of curriculum integration and mark-room for improvement. The overall goal of the program is to ensure that each student is graduating with a high comprehension of what sustainability is, how to integrate sustainable and equitable practices into their lives, and how to create a more sustainable and just world.



## OBJECTIVE:

# INCORPORATE SUSTAINABILITY CURRICULUM DISTRICT-WIDE

## GOAL 1: Explore and find the best model for curriculum development.

### Strategies:

7.1. For developing curriculum, explore the "Teacher on Special Assignment" model. For this model, one to three teachers are released from all teaching duties during the year to focus on research and integration of sustainability curriculum. Other models explore releasing teachers for half of their teaching load to give adequate time for research and development.

7.2. Explore potential partnerships with local organizations that can aid in curriculum development. This includes UNH faculty and students.

7.3. If a "Teacher on Special Assignment" is not a feasible model, explore putting out an RFP to hire a consultant who has experience with sustainability curriculum.

7.4. Formulate a strategic plan for curriculum development and assure it continues to align with ORCSD strategic plan and school policy.

7.5. Give students annual surveys to track the progress of sustainability knowledge.

7.6. Explore ways for students to give their perspective on how the curriculum should be shaped. This could be done using the stakeholder engagement plan in Appendix A.



## OBJECTIVE:

# INCORPORATE SUSTAINABILITY CURRICULUM DISTRICT-WIDE

## GOAL 2: Educate faculty about sustainability curriculum

### Strategies:

7.7. Once curriculum plan is created, host forums for faculty about curriculum integration. Cultivate buy-in so curriculum is catered to teachers/students wants and interests.

7.8. Have faculty complete annual surveys to see if the curriculum plans need tweaks or changes. Cater the program to needs of faculty/students.

7.9. Host yearly sessions to update faculty about sustainability initiatives and refreshers for curriculum.

## GOAL 3: Educate building administration and School Board about sustainability curriculum integration

### Strategies:

7.10. Host annual meetings to educate building administration about sustainability curriculum and initiatives to ensure there is investment from school leadership.

7.11. To ensure accountability on the curriculum plan, create a committee of building administration who meet quarterly to track progress of integration and ensure ORCSD is following guidelines in curriculum plan.

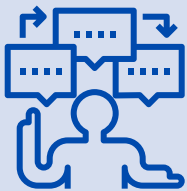
7.12. Continue to ensure that the Sustainability Coordinator position is filled to oversee all sustainability initiatives and explore making this position full-time.

# NEXT STEPS



## Stakeholder Engagement

During the Fall of 2021, the Sustainability Coordinator will work with local stakeholders to add their voices and perspectives to the sustainability plan. The plan will be edited based on stakeholder recommendations and approved by the School Board. More on the Stakeholder Engagement Plan in Appendix A.



## Action Plan

After approval from the school board, the Sustainability Coordinator will work to coordinate strategies to create an action plan for the next 5 years.



## Annual Report

Each year, the Sustainability Coordinator will record and present the strategies completed to the School Board. Updates will be made available online.

# CLOSING STATEMENT

ORCSD is excited to have a concrete sustainability management plan to continue moving in a positive direction for the prosperity of the planet and all its inhabitants. The sustainability framework laid out in this plan will continue to serve as a learning tool and guidance as ORCSD works through the sustainability strategies and re-evaluate their progress in the next 5-10 years.

# ACKNOWLEDGEMENTS

There were many passionate students, faculty, staff, and community members who contributed to the success of this sustainability management plan. We would like to specifically call out several individuals who dedicated much of their time to see the fruition of this plan:

Dr. James Morse, Superintendent  
Suzanne Filippone, Assistant Superintendent  
Susan Caswell, ORCSD Business Manager  
James Rozycki, ORCSD Facilities Director  
Doris Demers, ORCSD Food Service Manager  
Lisa Huppe, ORCSD Transportation Manager  
John Carroll, Durham Representative  
Jana Petrikova, Parent  
Cristina Dolcino, Faculty  
Jonathan Bromley, Faculty  
Chris Skoglund, Parent  
Yusi Turell, School Board Member  
Carrie Portrie, New Hampshire Listens  
Kamala Nasirova, University of New Hampshire  
Alley Leach, University of New Hampshire  
Maggie Morrison, Sustainability Coordinator

Lastly, we would like to thank the University of New Hampshire Sustainability Institute and UNH Sustainability Fellows Program.

*"We're deeply committed as a district to sustainability, and to see our students take this upon themselves and demonstrates the dedication they feel to preserve our environment and address potentially harmful habits our society has developed [...] it's a wonderful learning opportunity"*  
*Dr. James Morse, Superintendent*

---

Plan Drafted and Edited by:

Meg Maloney  
Sustainability Fellow at the University of New Hampshire

For questions or comments regarding this plan, please contact Maggie Morrison at [mmorrison@orcscd.org](mailto:mmorrison@orcscd.org)

# Appendix A- Stakeholder Plan

## Creating a shared vision- Stakeholder Engagement Plan

For the past 10 years, ORCSD has been working collaboratively with a diverse group of interested parties to excel sustainability within the district. Collaboration and community has been at the heart of ORCSD sustainability work, and we are excited to continue to ensure that community collaboration is deeply ingrained in this plan.

Due to the COVID-19 pandemic, we were unable to hold stakeholder engagement sessions for the Sustainability Management Plan until the Fall of 2021. The following appendix explains the process we will undergo to create a stakeholder plan and how we will ensure that students, faculty, staff, and parents are at the heart of the decision making process.

Below is a formulated stakeholder engagement plan focused on ensuring we get as many diverse perspectives as possible. There will be multiple avenues in which people will be able to engage with the sustainability plan before and after its approval. The 4 main areas of engagement are the following: (1) Focus Groups (2) Listening Session (3) Pop-Ups and (4) Surveys. This will ensure that everyone will have the opportunity to voice their perspective about the direction of sustainability over the next 5-10 years at ORCSD.

# STAKEHOLDER ENGAGEMENT TIERS

The following tiers are methods to engage stakeholders around the sustainability plan.

Facilitators can complete each tier, repeat tiers, or do a combination of the following tiers to best engage students, faculty, staff, and community members.



## Focus Groups

Focus group usually consist of 4-6 people from different backgrounds who answer a series of questions about their perceptions on sustainability and social justice within ORCSD. Most facilitators hold multiple focus groups and try to engage people who are not directly tied into sustainability initiatives to get a fresh perspective.



## Listening Sessions

Listening sessions are usually large gathering (sometimes with 100 people or more) to try and understand perspectives around sustainability and social justice. Activities include discussions between attendees, share out, and hands on engagement activities.



## Pop-Ups

Pop ups usually take place in a common area (such as a cafeteria or a main hallway) and are meant for quick engagement. This includes asking simple questions and students responding with sticky notes or to a quick survey.



## Survey

One the easiest ways to engage stakeholders, especially if they are unable to attend in person sessions, is through surveying.





# FOCUS GROUPS



The purpose of a focus group is to facilitate conversations to understand interests, priorities, and concerns of your stakeholders. The following method below includes ways to best engage in stakeholder meetings.

01

## Forming Focus Groups

Each focus group should have 4-6 people. When facilitating a focus group, you can choose a common trait between all the stakeholders (for example, all parents or all students) or a shared interest (all involved in sustainability initiatives or all in the PTO).

02

## Structure of Focus Group

Each focus group should only last about 1 hour. There should be shared expectations read aloud in the beginning (ie: everyone should be open minded, allow others to speak, ask follow up questions etc) in order to create a safe space where everyone feels comfortable sharing. The facilitator will ask everyone 5-6 questions throughout that time. Questions include: Are you involved in sustainability initiatives? What does sustainability mean to you? How can ORCSD be more sustainable? What is missing from the management plan? What would you like to see ORCSD do in the future (in terms of sustainability and social justice?).

03

## Data Saturation

To determine how many focus groups need to be held, it is a common practice to hold as many sessions until you reach "data saturation." Essentially, this means you begin hearing the same things over and over again. This means you might hold 5 focus groups or 10 before data saturation. Data saturation is not always achievable due to the limited time of the facilitator. Therefore, if data saturation cannot be reached, try to hold a focus group for each targeted stakeholder you would like to engage (for example, parents, students, faculty, staff, and community members).



The purpose of a listening session is allow space for all stakeholders to voice their perspective and opinion about the direction of the management plan. This method is an easy way to distill many stakeholders opinions in a small amount of time.

01

### **Forming A Listening Session**

Listening session are design to be an open invitation where anyone within the targeted stakeholder groups are allowed to join for a large group session. These sessions can be at most 100-200 people, and are design to be interactive and engaging.

02

### **Structure of A Listening Session**

A listening session can be anywhere from a 1 hour session to a half day session. During the listening session, facilitators will begin by introducing their objectives and goals for the day, as well as inform the stakeholders about the overview of the day. Listening sessions are very interactive, often include breaking out into groups for discussions, taking surveys, sharing answers widely (through sticky-notes or group summaries) as well as ensuring that stakeholders ideas are being heard. Towards the end, if feasible, the group can decide on action items (such as what to incorporate into the plan). These sessions are design to complement the wants and needs of the stakeholders within district.

03

### **Post Listening Session**

After the listening session, facilitators can follow up with stakeholders with a survey or give updates to how their input is being integrated into the plan. In some instances, multiple listening sessions can be held throughout the process but often there is usually only 1-2 listening sessions in the beginning and after the product is finished.



The purpose of a pop-up is to do quick engagement with stakeholders in less than 5 minutes. Many pop-ups includes having a short activity in a populated area (cafeteria, recess, PTA meeting, etc).

01

### Forming A Pop-Up

Pick a very popular area for your targeted population. For example, if you are trying to target students, do a pop-up in a cafeteria, or during recess. Pop-ups are targeted for quick engagement (under 5 minutes) and are suppose to be easy for someone to do quickly.

02

### Structure of A Pop-Up

What is the most pressing question that you need answered for your stakeholder engagement? This might be "How much do you know about sustainability?" or "What does sustainability mean to you?" These questions should be answered in a fun way. For example, have students write it on a sticky note, draw a picture, or give you a quick answer. The purpose of the pop-up is to engage as many people as possible without taking up much of their time.

03

### Post Pop-Up

After the pop-up, the general "gap" within your engagement should be filled. This means your most pressing question or the need for a general understanding should be answered. Hopefully, through this type of engagement, you get a general sense about what that targeted stakeholder group thinks about a certain topic or question.

*A great example of a pop-up activity is sticky-note engagement within cafeterias. This would allow students to answer a question or gauge their understanding on a topic in a quick yet fun way. Students could draw pictures, write answers, or work with fellow students to come to a collective answer.*





The purpose of a survey is to get responses for targeted stakeholders who are unable to attend in person stakeholder engagement events or have limited time to spend in stakeholder sessions.

01

### Forming A Survey

There are numerous strategies for creating and distributing surveys. The most important questions you should ask yourself when creating a survey is the following: (1) What do I need answered? (2) What is the most effective and efficient way I can ask this question? (3) Will this survey be easy for the stakeholder to understand and give meaningful feedback? As mentioned, there are hundreds of pieces of literature that explain the science of how to form a good survey. At the end of the day, it is most important that you ask questions that will give you feedback that is easy digestible and applicable.

02

### Administering the Survey

When distributing a survey, you want to ensure you cater the survey to a targeted group. With COVID-19, much of the stakeholder engagement has been done remotely. Therefore, exploring the best avenues to administer the survey as well as getting the most responses is crucial. This might mean sending it to a specific email list, having an administrator put the survey out, or exploring social media to put the survey online. Regardless, finding the best way to administer that meets the needs of your stakeholder group is essential.

03

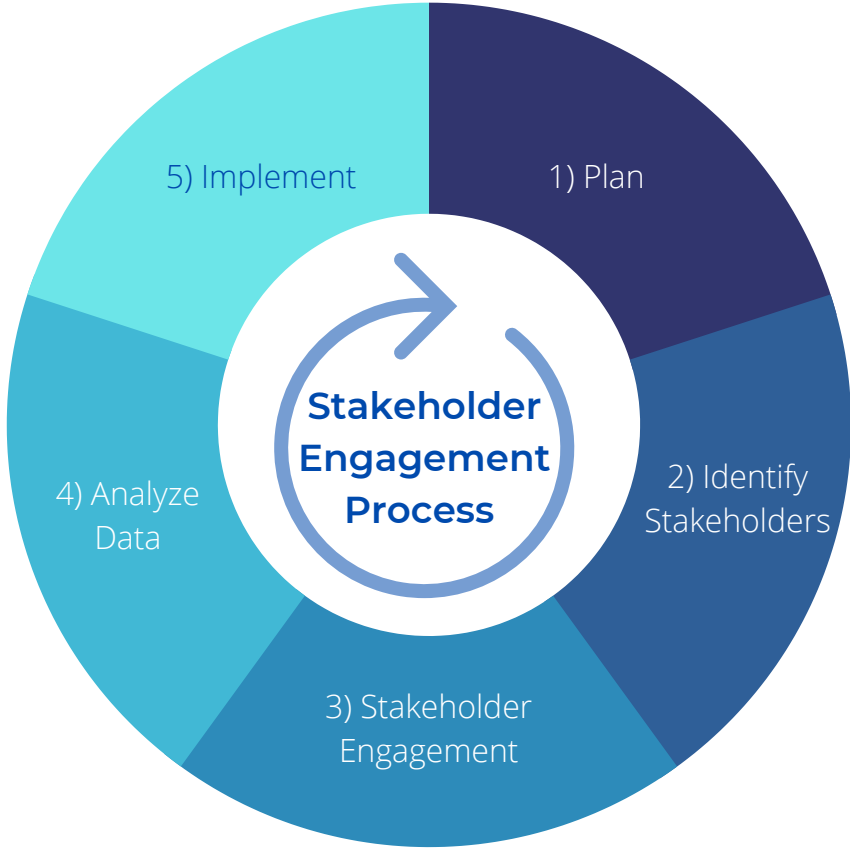
### Post Survey

After finishing the survey, the emails or names collected is a great avenue to share final products of your results, solicit more feedback if needed, or explore other stakeholder engagement. This method is great for a final distribution of the final product so people can see how their feedback was incorporated in.

As previously mentioned, there are hundreds of pieces of information on how to best conduct a survey. Using these resources as well as resources from the school district will be the best method to ensure that the survey created is useful.

# STAKEHOLDER SUMMARY

As previously noted, there are hundreds of ways to complete stakeholder engagement- there are various resources available online, through ORCSD, or UNH to help complete a comprehensive review. Through this process, it is of the utmost importance that this process cultivates buy-in, listens to the wants/needs of the community, and reflects those wants/needs within the final product.



---

For additional questions regarding stakeholder engagement for creating a sustainability management plan, please contact Meg Maloney or Maggie Morrison to learn more about next steps within the process.

# Appendix B- Summary of Goals

# SUMMARY OF GOALS AND STRATEGIES

## Energy

**Objective:** Lower our Greenhouse Gas Emissions Based on Building Targets

**Goal 1:** Lower electric usage based on the following building targets: For Moharimet Elementary school, lower source energy consumption by 1 kBtu/ft<sup>2</sup> for the next 5 years and GHG emissions by 1 Metric Ton CO<sub>2</sub>e for 5 years. For Mast Way, lower source energy by 2-5 kBtu/ft<sup>2</sup> for the next 10 years, and total GHG by 2-5 Metric Tons CO<sub>2</sub>e.

- 1.1. Once the middle school and high school renovations are complete, set a yearly energy target based on energy portfolio manager goals.
- 1.3. Conduct an ASHRAE level II audit which includes evaluating plug load, lighting, water, and building envelope. Explore a performance contract in order to fund upgrades recommended in the audit.
- 1.4. In tandem with the energy audits, create an energy reduction plan.
- 1.5. After evaluating plug loads, encourage areas with high plug loads to reduce load by unplugging devices that are not used frequently or are constantly running when they are not needed. This includes working with IT to create a program to shut down technology that is not being used.
- 1.6. Explore creating more efficient HVAC set points and schedule (by 1 or 2 degrees) to ensure energy is being saved. Explore adding SMART technology (CO<sub>2</sub> sensors) to each room to have an automotive system to save energy.
- 1.7. Continue to replace any non-LED lighting with LED.
- 1.8. Continue to explore and utilize local utility rebates to find rebates to put toward energy efficiency projects.
- 1.9. When roofing updates are needed, explore replacing roofs with solar or a white, tan, or silver roof.
- 1.10 Explore declaring a climate emergency as a district to set more aggressive goals (as seen in Appendix C) to lower greenhouse gas emissions.

**Goal 2:** At least 25% of ORCSD procured energy usage should be derived from renewable sources by 2025

- 1.11. When the energy supply contract ends, explore changing energy suppliers with a renewable energy source.
- 1.12. Explore adding renewables to more buildings and creating a strategic plan for renewable additions. This includes always evaluating roofs for solar when any roofing updates are occurring and adding solar canopies to parking lots.

# SUMMARY OF GOALS AND STRATEGIES

## Energy

**Goal 3:** Decrease usage and reliance on natural gas

- 1.13. Consider replacing natural gas boilers with more efficient condensing boilers or an electric system.
- 1.14. Create a more strategic set point for natural gas systems in the winter. This includes reducing the temperature by 1-2 degrees.
- 1.15. Create a goal for natural gas usage. Determine this goal based on building averaging natural gas usage for each school over the past 2-3 years and decreasing it by 10% each year with designated setpoints.
- **Goal 4:** Curb water consumption throughout the district.
- 1.16. Continue to replace water inefficient systems with low flow systems. Explore placing low flow systems in classrooms, the kitchen, and other areas aside from bathrooms.
- 1.17. Evaluate irrigation practices to see if watering can occur on a more infrequent schedule.

## Construction and Land Use

**Objective:** Lower our Greenhouse Gas Emissions through Sustainable Design

**Goal:** Use sustainable designs as part of all new construction projects and renovations.

- 2.1 Develop a building maintenance and sustainability plan to ensure that all new projects are following sustainability guidelines that are agreed upon by the district.
- 2.2 For each new building renovation or construction project, follow green building guidelines such as LEED, Energy Star, or other comparable organizations guidelines.
- 2.3 Continue to explore Net-Zero design and try to incorporate Net-Zero upgrades within buildings.
- 2.4 Inventory existing appliances and updated aged appliances with energy star-rated appliances.
- 2.5 When updating buildings, try to reuse or divert waste from landfills. This includes repurposing existing materials or recycling materials that cannot be used in the design.
- 2.6. Add ability for new roofs to be able to add solar in the future, even if not feasible at the current time.



# SUMMARY OF GOALS AND STRATEGIES

## Construction and Land Use

**Goal:** Improve the district's land-use practices in order to create more friendly landscapes for native organisms.

- 2.7. Create a Tree Plan or policy to put more sustainable practices of tree maintenance and plantings in place. This includes ensuring any tree that is cut down is replaced by a native tree and that there is a greater diversity of trees.
- 2.8. Replace current herbicide/pesticides with more pollinator-friendly and organic products.
- 2.9. Purchase organic and composted mulch from a local vendor to cut down on carbon emissions.
- 2.10. Continue incorporating natives in landscape practices. Try to achieve 80% native plants by 2030 on all new landscape practices.
- 2.11. Try to incorporate plants that can tolerate dry soils to encourage water conservation.
- 2.12. Plant native friendly grass to promote pollinators and decrease the number of spaces that do not promote species diversity.
- 2.13. Evaluate current mowing practices to see if the district can mow less frequently to cut down on carbon emissions and save money.

## Waste

**Objective:** Reduce overall waste that ORCSD generates over the next 10 years.

**Goal:** Complete waste audits in each school to understand waste composition and create a diversion goal.

- 3.1. Determine how much material is going to landfills that could have been recycled or composted at each school through a waste audit. Have students participate in this event.
- 3.2 Set a diversion rate that you want each school to achieve for the next 5-10 years.
- 3.3. Create a drop off area for students and school community to recycle batteries, electronics, and other items that can cause harm to a landfill. Do more targeted education to inform students and school community about the drop off areas.

# SUMMARY OF GOALS AND STRATEGIES

## Waste

**Goal:** Create a sustainable purchasing strategy that is focused on reducing single-use and plastic waste

- 3.4. Encourage reuse by changing purchasing standards to buy items that are compostable or reusable. This includes compostable forks in the kitchen, reducing condiment waste, compostable bags, reusable school supplies (such as reusable expo markers), and create a shared space among teachers where they can reuse/share supplies.
- 3.5. Ban the use of purchasing Styrofoam within the district.
- Goal: Create programs that teach about how to divert waste from landfills.
- 3.6. Create an education program that informs students about how to compost and recycle at school. Some examples include curriculum discussed during time with mentor or a waste sorting game in PE classes.
- 3.7. Get consistent signage for compost, recycling, and waste bins for each classroom after achieving zero contamination in compost within the cafeterias.
- 3.8. Create zero waste sports events once a year to train students and parents about how to divert waste from landfills.
- 3.9. Create district-wide waste signage consistency for recycling, compost, and trash.
- Goal: Achieve a waste diversion rate over 50% for new construction, renovations, and ground projects.
- 3.10. Achieve a 50% diversion (Tier 1 of LEED Standards) for all new construction and renovation projects. Try to increase this percentage to 75% by 2050.

**Goal:** Create a strategic plan to reduce food waste within the kitchens and cafeterias.

- 3.11. Continue exploring ways to purchase local food for the school district.
- 3.12. Organize a "waste-free" lunch during the school year throughout the district.
- 3.13. Continue to evaluate ways to cut food waste within the cafeteria and teacher-sponsored events. Create a concrete plan to strategize waste reduction.

**Goal:** Explore On-Site Composting

- 3.15. Trial on-site composting from food waste within the kitchen. Use this trial to see how much compost can be generated.
- 3.16. Explore grants or other funding mechanisms to purchase an In-vessel or similar composting system to make composting easier for the district.

# SUMMARY OF GOALS AND STRATEGIES

## Health and Wellness

**Objective:** Promote the Overall Mental, Physical, and Emotional Well-being of the students, Faculty, and Staff

**Goal:** Promote the overall health and well-being of students within the district

- 4.1. Improve child nutrition program by adding cooking workshops to each of the schools within the district.
- 4.2. Explore growing salad greens within each of the curriculum gardens at the schools. Teach kids how to grow your own food. If a child is unable to grow food at home, lend space in curriculum gardens for children/families who are interested.
- 4.3. Partnering with UNH to aid in nutritional programming
- 4.4 Continue exploring programming to teach kids how to deal with emotional and mental stress in a productive way. This can aid in a proactive approach to education about climate change.
- 4.5. Try to incorporate more movement-based and outside learning into the curriculum to encourage a healthy relationship with our bodies and the environment.

**Goal:** Promote overall health and well-being of faculty and staff within the district

- 4.6. Continue hosting workshops and focus groups that encourage better mental and emotional health for faculty and staff.
- 4.7. Continue to educate staff about how to incorporate teaching about emotional and mental well-being for students.

# SUMMARY OF GOALS AND STRATEGIES

## Transportation

**Objective:** Reduce Transportation Emissions by 2% Each Year.

**Goal:** Reduce single staff, student, and parent occupancy trips by 10% by 2030.

- 5.1. Explore ridership software to encourage more students to carpool. This includes working with the IT department to host the software.
- 5.2. Improve the safety of students walking to school through a transportation safety master plan. Partner with the regional planning commission to explore biking initiatives.
- 5.3. For students in the walking zone have a more targeted education program or initiatives to encourage walking or biking.
- 5.4. Redo the transportation survey for faculty, staff, and students to get a more accurate transportation emission in SIMAP.
- 5.5. Work with local partners to establish a better biking map that includes bike routes and where bike parking is available.
- 5.6. Explore limiting parking passes or disallowing parking in certain areas at the high school to get more students to carpool.
- 5.7. Explore ways to incentivize more kids to take buses if eligible.
- Goal: Establish stricter idling policies.
- 5.8. Create idling signage at drop-off areas and assign an employee to try and enforce cars to participate.

**Goal:** Increase the number of electric vehicles used by the ORCSD Community

- 5.9. Convert fleet to an all-electric fleet by 2035, including buses and vans.
- 5.10. Offer electric charging stations for electric vehicles in all parking lots or at least one charging station per school.

# SUMMARY OF GOALS AND STRATEGIES

## Curriculum

**Objective:** Incorporate sustainability Curriculum district-wide

**Goal:** Explore and find the best model for curriculum development.

- 7.1. For developing curriculum, explore "Teacher on Special Assignment" model. For this model, one to three teachers are released from all teaching duties of the year to focus on research and integration of sustainability curriculum. Other models explore releasing teachers for half of their teaching load to give adequate time for research and development.
- 7.2. Explore potential partnerships with local organizations that can aid in curriculum development. This includes UNH faculty and students.
- 7.3. If a "Teacher on Special Assignment" is not a feasible model, explore putting out an RFP to hire a consultant who has experience with sustainability curriculum.
- 7.4. Formulate a strategic plan for curriculum development and assure it continues to align with ORCSD strategic plan and school policy.
- 7.5. Give students annual surveys to track the progress of sustainability knowledge.
- 7.6. Explore ways for students to give their perspective on how the curriculum should be shaped. This could be done using the stakeholder engagement plan in Appendix A

**Goal:** Educate faculty about sustainability curriculum

- 7.7. Once curriculum plan is created, host forums for faculty about curriculum integration. Cultivate buy-in so curriculum is catered to teachers/students' wants and interests.
- 7.8. Have faculty complete annual surveys to see if the curriculum plans need tweaks or changes. Cater the program to the needs of faculty/students.
- 7.9. Host yearly sessions to update faculty about sustainability initiatives and refreshers for curriculum.

**Goal:** Educate building administration and School Board about sustainability curriculum integration

- 7.10. Host annual meetings to educate building administration about sustainability curriculum and initiatives to ensure there is investment from school leadership.
- 7.11. To ensure accountability on the curriculum plan, create a committee of building administration who meet quarterly to track the progress of integration and ensure ORCSD is following guidelines in the curriculum plan.
- 7.12. Continue to ensure that the Sustainability Coordinator position is filled to oversee all initiatives and explore making this position full-time.

# Appendix C- Goals for the Future

# Goals for the Future

The following goals are long-term goals that ORCSD is moving towards accomplishing within the next decade or two:

1. Carbon Neutrality by 2040
2. Local renewable energy powering all facilities (preferably generated by ORCSD)
3. All faculty/staff driving electric vehicles by 2050
4. Zero-waste by 2050 including ORCSD handling their own compost.
5. Moving away from natural gas completely by 2050
6. Completely native landscaping by 2050 including native grasses on the lawn
7. Grey water system installation
8. Limiting student parking passes to encourage more students to walk/bike to school or take the bus system.
9. Working with the City of Durham to jointly tackle climate change initiatives such as working together to develop renewable energy or start a region wide composting initiative.
10. Set a national example with sustainability curriculum integration by 2030.
11. Have all net zero buildings by 2040
12. 80%-100% native landscape design by 2040
13. Hit a waste diversion goal of 75% waste diversion by 2050.