



Mountain View
Whisman
School District

Environmental Sustainability Advisory Council Progress

February 29, 2024



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Board Resolution

Board Resolution 05-012623, Climate Change and Green Schoolyards

The resolution passed by the Board on January 26, 2023 has guided the work of the District and advisory council.



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Strategic Plan 2027

Strategic Plan 2027

Goal Area 5

- Equitable distribution of resources that support student success.
- Goal 5a: Ensure facilities and resources equitably serve all students.

Board of Trustee Direction

- The January 2023 resolution by the Board refreshed our efforts
 - MVWSD has the opportunity to be a leader when it comes to greening initiatives
 - The District already recycles, composts, has installed LED lighting and solar panels but MVWSD can do more
- We want to make a plan to guide and consistently implement our efforts moving forward



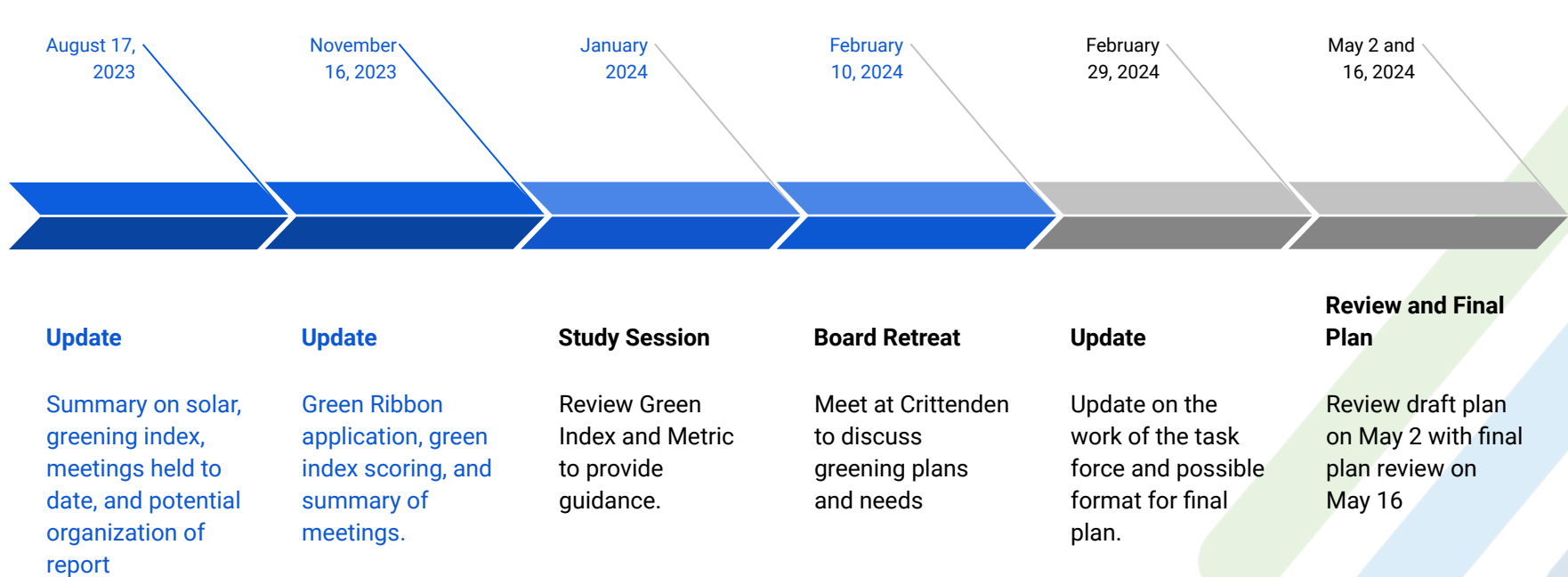
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Sustainability Action Plan

Incremental Approach

- Continuous incremental improvements as opportunities arise
 - Facilities, Utilities, & Infrastructure
 - Capital projects (new construction, renovation)
 - Equipment & system upgrades/replacement
 - Operations
 - Maintenance & repairs
 - Equipment & system calibrations
 - Student services
 - Waste management
 - Curriculum/Learning
 - Environmental literacy
 - Integrating nature and the environment

Board Update Schedule



Advisory Council Meetings (2023-2024)

May 9, 2023 Kickoff

May 17, 2023 Campus Greening

June 14, 2023 Campus Greening

June 23, 2023 Campus Greening

August 16, 2023 Child nutrition,
healthy food, climate impacts

September 20, 2023 Biodiversity/
plant ecology, lighting

October 18, 2023 Curriculum,
legislative/ funding initiatives,
partnerships

November 15, 2023 School site
engagement, environmental literacy

December 13, 2023-EV fleet
transition, native landscapes/
urban forests

January 24, 2024-Stormwater
management/water reclamation

February 28, 2024-Draft Plan
outline

March 13, 2024-Draft Plan prep

May 2, 2024 Draft Plan prep



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Sustainability Action Plan

6 Focus Areas

Six Program Areas



ENERGY
CONSERVATION



WATER
STEWARDSHIP



EDUCATION
&
AWARENESS



HIGH
PERFORMANCE
SCHOOLS



CAMPUS
ECOLOGY



EMERGING
TECHNOLOGIES

Energy Conservation

- Reduce Energy Conservation
 - Energy-efficient HVAC systems
 - Energy-efficient lighting systems
 - Smart operating systems (HVAC, lighting, irrigation)
 - Thermally efficient buildings (roofs, windows/doors)
- Increase Renewable Energy Use
 - Solar systems
 - Transition to EV fleet
- Increase Awareness of Energy Conservation
 - CA Building Energy Efficiency Requirements
 - Establish School Site Committees

Discussions

- Most sites have efficient lights but some lights stay on all night/day.
- Area of growth is getting all lighting on a management system, similar to what we are working towards for HVAC systems.
- Area of growth is getting older DO portables on the HVAC management system.
- The need for school site committees to drive conservat

Water Conservation

- Reduce Water Consumption
 - High-efficiency/low-flow plumbing fixtures
 - Higher-efficiency/smart irrigation systems
 - Native/drought-resistant landscaping
- Reduce Groundwater Pollution & Replenish Underground Aquifers
 - Low-Impact Development (LID) site measures
 - On-site water retention (e.g., bioswales, rain gardens, increase pervious surfaces, retention basins, on-site dry wells)

Water Conservation

- Water Reuse & Recycling
 - Limited opportunities for campus-wide system
 - Opportunities for local non-potable water systems
 - Controlled areas/learning opportunities
 - MOT vehicle wash stations
- Increase Awareness of Water Stewardship
 - Establish School Site Committees

Discussions

- Great interest in water reclamation/treatment
- The committee found that water treatment on school sites is cost prohibitive and not found in California due to water treatment regulations.
- Sites can do smaller projects for water reclamation such as rain barrels with pumps for water gardens.

Discussions

- If the City of Mountain View were to install “purple pipe” (recycled water) we could tap into it for future irrigation needs.
- It would be helpful for transportation to have equipment and the space to safely wash buses.
- For future projects, we should plan to increase pervious surfaces.

High Performance Schools

- Environmentally Sustainable School Campuses
 - Design to green building criteria (LEED, CHPS)
 - Optimize indoor & outdoor learning environments (lighting, thermal, acoustic)
 - Increase environmental literacy through high-performing school environments
- Apply Best Design Practices to Capital Projects
 - Energy-efficient systems and structures
 - Natural daylighting & ventilation
 - CA building energy efficiency standards

High Performance Schools

- Apply Best Site Management Practices on Campuses
 - Stormwater management
 - Smart irrigation systems
 - Reduce heat-island effects
 - Outdoor landscapes & learning environments
 - Native/drought-resistant landscaping
 - Alternative travel modes to schools
 - Reduce waste and plastics pollution

Discussion

- To reduce waste we need to have three stream bins available and students need to be educated on how to use them.
- Increasing student awareness around what parts of the meal they must take and have a place for them to share food they do not consume.

Discussions

- Strong interest in having schools that utilize native plants and training on how to care for natives.
- Having the “right trees in the right place”.
- With the changing environment and new technology it would be beneficial to have guidelines for future schools as opposed to specifying what should be used (LEED and CHIPS).

Campus Ecology-Greening Campuses

- Greening Index
 - Baseline measure for softscape, hardscape & shade
- Greening Metrics
 - Holistic measure for a school's outdoor spaces
- Greening Scores (all campuses)
 - Comparative basis for assessing school sites
- Greening Opportunities (site specific)
 - Opportunities to increase school site scores to meet benchmarks
- Greening Plans (site specific)
 - Recommendations to improve school sites

Discussions

The Green Index and Greening Metric are in process of being reworded to include:

- Site frontage greenery
- The overall feel of the campus with weighted metrics
- Student usage

Emerging Technologies

- Green Building Systems
 - High-efficiency, low-energy lighting fixtures with smart operating systems
 - High-efficiency smart HVAC systems
 - High-efficiency, low-flow plumbing systems
 - High-performing building envelopes (roofs, walls, windows)

Emerging Technologies

- Green Site Infrastructure Systems
 - High-efficiency, low-energy lighting fixtures with smart operating systems
 - Smart irrigation systems
 - Stormwater collection & on-site recharge systems
- Green Vehicle & Equipment Systems
 - Transition to EV fleet
 - Support infrastructure & operating systems
 - Equipment & vehicles

Discussion

- As emerging technologies become available it would be beneficial for the District to have the ability to pilot tools and designs as appropriate.
- Having funds set aside to implement new technologies would need to be determined.

Education & Awareness

- Collaborative Approach
 - District advisory group (partners, families, staff)
 - School site committees (staff, students)
- Curriculum Opportunities
 - Align with environmentally-oriented resources & standards (e.g., NGSS, EP&C, etc.)
 - Expand curriculum into the natural world

Education & Awareness

- Learning Opportunities
 - Environmental literacy
 - Healthy foods
 - Extend into outdoor environments
 - Waste impact & reduction
 - Campus environments that teach
- Partnerships with Subject Matter/Resource Partners
 - Ecoliteracy, native landscapes, outdoor education, landscape maintenance, new technologies, curriculum, watershed management

Education & Awareness

- Local, Regional, and National Sustainability Initiatives
 - Healthy foods (State)
 - School gardens (State)
 - Environmental literacy (State)
 - Energy efficiency (State)
 - Water resource management (State)
 - Campus resiliency (County)
 - Biodiversity & urban forests (City)

Discussion

- A potential opportunity to move many of the items forward is to have a Sustainability TOSA who could spearhead and guide green initiatives at each school site with a green site lead.



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Sustainability Action Plan Capital Projects & Studies

Capital Projects & Studies Sustainability Action Plan

SCHOOL SITES	Measure G (2012-2019)	Measure T (2020-2023)	Measure T (2023-2024)	Other Future Projects/Studies
<i>Status</i>	<i>Completed</i>	<i>Completed</i>	<i>Ongoing</i>	<i>TBD</i>
Bubb	New MUR & Classrooms Modernize Building & Utility Systems (classrooms, offices, restrooms)	Solar/Shade Structures Site Lighting	HVAC Replacement Window Replacement Drink/Bottle Fill Stations	Roof Repair Outdoor Landscape & Learning Stormwater Features
Castro	New Campus	Site Lighting Solar/Shade Structures	HVAC Replacement Window Replacement Drink/Bottle Fill Stations Park Restrooms	Covered Walkway Outdoor Landscape & Learning Stormwater Features
Crittenden	New Auditorium, Innovation Center & Classrooms Modernize Building & Utility Systems (classrooms, offices, restrooms)	Site Lighting Solar/Shade Structures	HVAC Replacement Window Replacement Drink/Bottle Fill Stations	Roof Replacement (6 buildings) Utility Survey/Repair Outdoor Landscape & Learning Stormwater Features
Graham	New Auditorium, Innovation Center & Classrooms Modernize Building & Utility Systems (classrooms, offices, restrooms)	Site Lighting Solar/Shade Structures	HVAC Replacement Window Replacement Drink/Bottle Fill Stations	Roof Replacement (2 buildings) Modernize Classrooms (Arts/HE) Outdoor Landscape & Learning Stormwater Features
Imai	New MUR & Classrooms Modernize Building & Utility Systems (classrooms, offices, restrooms)	Site Lighting Solar/Shade Structures	HVAC Replacement Window Replacement Drink/Bottle Fill Stations Park Restrooms	Roof Repair Outdoor Landscape & Learning Stormwater Features

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Landels	New MUR & Classrooms Modernize Building & Utility Systems (classrooms, offices, restrooms)	Solar/Shade Structures Site Lighting	HVAC Replacement Window Replacement Drink/Bottle Fill Stations Park Restrooms	Roof Repair K Playground Replacement Outdoor Landscape & Learning Stormwater Features Playground
Mistral	Modernize Building & Utility Systems (MUR, classrooms, offices, restrooms)	Site Lighting Solar/Shade Structures	HVAC Replacement Window Replacement Drink/Bottle Fill Stations	Covered Walkway Outdoor Landscape & Learning Stormwater Features Playground
Monta Loma	Modernize Building & Utility Systems (MUR, classrooms, offices, restrooms)	Site Lighting Solar/Shade Structures	HVAC Replacement Window Replacement Drink/Bottle Fill Stations	Repave Parking Utility Survey/Repair Modernize Restrooms Outdoor Landscape & Learning Stormwater Features Playground
Stevenson	New Campus	Site Lighting Solar/Shade Structures	HVAC Replacement Window Replacement Drink/Bottle Fill Stations	Outdoor Landscape & Learning Stormwater Features Playground
Theuerkauf	Modernize Building & Utility Systems (MUR, classrooms, offices, restrooms)	Site Lighting Solar/Shade Structures	HVAC Replacement Window Replacement Drink/Bottle Fill Stations	Roof Repair (7 buildings) Modernize Restrooms Playground Replacements (K, 1-5) Outdoor Landscape & Learning Stormwater Features

Capital Projects & Studies Sustainability Action Plan

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<i>Status</i>	<i>Completed</i>	<i>Completed</i>	<i>Ongoing</i>	<i>TBD</i>
Vargas	New Campus	Solar/Shade Structures Site Lighting	HVAC Replacement Window Replacement Drink/Bottle Fill Stations	Outdoor Landscape & Learning Stormwater Features Playground
District-Wide			Lighting Controls EV Fleet Transition Child Nutrition Initiatives Sustainable practices Healthy foods that have a lower impact on the environment School Site Committees Energy usage Reduction of waste Green team Native Landscapes New Plant Palettes Maintenance Training	



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Next Steps

Next Steps

- Compile ideas discussed and assign a cost to items or propose future studies of items if needed.
- Present a draft plan to the Board on May 2, 2024.
- In a subsequent meeting ask the board on direction on how to allocate the remaining bond funds between the Master Facility Plan and Sustainability Plan.