



Mountain View
Whisman
School District

Environmental Sustainability Advisory Council Progress and Updates

November 16, 2023



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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

- Resolution by the Board refreshed our efforts
 - MVWSD has the opportunity to be a leader when it comes to greening initiatives while the District already recycles, composts, has installed LED lighting, and solar panels MVWSD has the opportunity to do more
 - Goal is to create a plan of action that guides our efforts moving forward



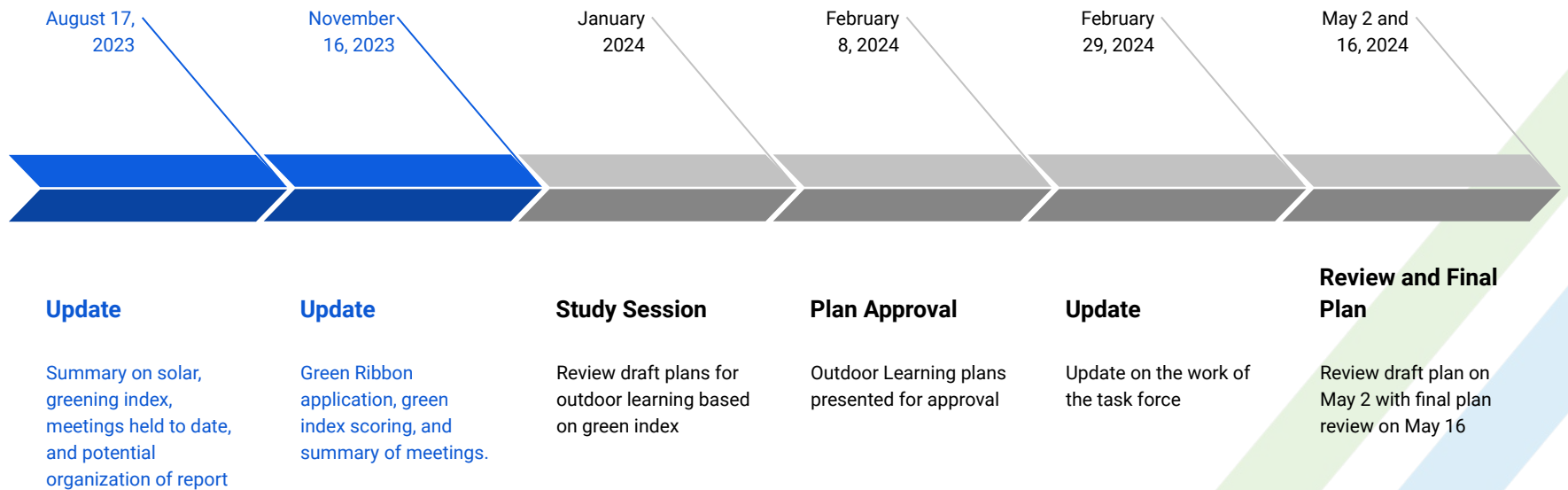
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Updated Meeting Schedule and Topics

Board Update Schedule

- August 17, 2023 update
- November 16, 2023-today
- January 18 or 20th Study Session to review draft plans
- February 8 plan approval
- February 29, 2024 update
- May 2, 2024- present draft plan
- May 16, 2024-present final plan

Board Update Schedule



Meeting Schedule and Topics

May 9, 2023 Kickoff

May 17, 2023 Campus Greening

June 14, 2023 Campus Greening

June 23, 2023 Campus Greening

August 16, 2023 Food, Student Health, Plastics/Foodware

September 20, 2023 Greenspace for schools/Community/lighting

October 18, 2023 Environmental Literacy, Biodiversity, Legislative and Funding Initiatives

November 15, 2023 Trends in renewable energy systems, fleet electrification, on the ground school possibilities

December 13, 2023-Topic to be determined

January 24, 2024-Topic to be determined

February 28, 2024-Draft plan discussion

March 13, 2024-Review draft plan

May 2, 2024 Board Draft



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Environmental Sustainability Advisory Committee

Advisory Committee: Participants

Facilitated and led by District CBO

- **Parent Volunteers** (Castro, Landels, Mistral, Monta Loma, Graham, Vargas),
- **Faculty Volunteers** (Vargas, Mistral)
- **Community Partners** (Canopy, Living Classroom, Greenspace MV)
- **District Administrative Staff** (MOT, Nutrition/Food Services, Curriculum/Instruction)
- **Professional Consultants supporting the District** (Planning, Landscape Architecture, NV5, Construction Management)

Advisory Committee: Presentation Topics

- **Food & Healthy Living**
- **Plastics & Reusable Foodware**
- **Planting for Nature and Biodiversity**
- **Environmental Literacy**
- **Legislative & Funding Initiatives**
- **Science in Schools**
- **Trends in Renewable Energy Systems**
- **Environmental Behavior Change**
- **Environmental Sustainability on Campus**
- **Urban Forestry**
- **Water & Stormwater Management**

Six Program Areas



ENERGY
CONSERVATION



WATER
STEWARDSHIP



EDUCATION
&
AWARENESS



HIGH
PERFORMANCE
SCHOOLS



CAMPUS
ECOLOGY



EMERGING
TECHNOLOGIES

Final Report

- The final report will include options for moving forward in each of the six areas as well as areas for further study.



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Greening Index and Feedback

OUTDOOR LEARNING & GREENING STANDARDS

MOUNTAIN VIEW WHISMAN SCHOOL DISTRICT

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SUSTAINABILITY PROGRAM-ACTION PLAN

MOUNTAIN VIEW WHISMAN SCHOOL DISTRICT (MVWSD)

Board Resolution No. 05-012623, adopted 2/9/23

#	ITEM	SCOPE
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- 1 a Greening Index
- 1 b Greening Score
- 4 c Greening Plan
- 4 d Greening Metric

GREENING INDEX: prepare a Greening Index that establishes a specific percentage or ratio, including but not limited to green space and hardscape areas of each campus.

GREENING METRICS: Prepare a tabulated metrics tool to measure progress towards greening goals, including heat reduction/shade, planting, and area of soft surfaces and planting. Create tool for future use.

GREENING SCORE: Establish a Greening Score for each MVWSD school site (11), applying the Greening Index. Document each school's status and tabulated ranking of 11 school sites.

GREENING PLAN: Prepare concept-level landscape plans for each school site (11 total) to increase green space to meet minimum standards (i.e., 30%).

01

INPUT PROCESS OVERVIEW

MARCH 2023 - SITE VISITS

- 3/2 Landels & Amy Imai Site Visit
- 3/9 Monta Loma & Castro-Mistral Site Visit
- 3/23 Bubb & Crittenden Site Visit
- 3/30 Stevensen, Theeuerkauf & Graham Site Visit

MAY 2023 - MEETING WITH SPECIALIST TEAM

SUMMER 2023 - MEETING WITH ENVIRONMENTAL SUSTAINABILITY ADVISORY COUNCIL

- 5/17 Council Meeting #1
- 6/14 Council Meeting #2
- 7/24 Council Meeting #3

SEPTEMBER/OCTOBER 2023 - MEETINGS WITH PRINCIPALS

- 9/19 Overview Meeting with All Principals
- 9/26 Amy Imai Principal Meeting
- 9/27 Landels Principal Meeting
- 9/29 Monta Loma Principal Meeting
- 10/2 Mistral Principal Meeting
- 10/4 Theuerkauf Principal Meeting
- 10/5 Graham Principal Meeting
- 10/9 Bubb Principal Meeting
- 10/11 Castro Principal Meeting
- 10/23 Crittenden Principal Meeting
- 10/25 Stevenson Principal Meeting

OCTOBER/NOVEMBER 2023 - MEETINGS WITH STAFF

- 10/30 Graham Staff Meeting
- 11/2 Crittenden Staff Meeting
- 11/6 Monta Loma Staff Meeting
- 11/7 Landels and Bubb Staff Meeting
- 11/9 Stevenson and Castro Staff Meeting
- 11/13 Amy Imai Staff Meeting
- 11/16 Theuerkauf Staff Meeting
- 11/29 Mistral Staff Meeting

NOVEMBER/DECEMBER 2023 - COMMUNITY MEETINGS

- 11/28 Combined Community Meeting for Bubb, Amy Imai & Graham
- 11/29 Combined Community Meeting for Castro, Mistral & Landels
- 11/30 Combined Community Meeting for Monta Loma, Theuerkauf, Stevenson & Crittenden
- 12/6 General Community Meeting

- Email invites to community groups, neighborhood leaders and organizations
- Flyers and emails to parents, staff members
- Posts on social media, Nextdoor
- Postcards to 15,000 residents

Greening Our Schools
Creating Outdoor Greening and Learning Spaces

MWSD is creating spaces at each school that will provide shade, plants and outdoor areas for learning and play.

- Learning and recreational activities
- Physical and mental well-being
- Connection to our natural world

Share your ideas 

About all school campuses
Wednesday Dec. 6 @ 5-6pm

Register here
SCAN ME 

To learn more:
www.mwisd.org/greening

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GREENING INDEX

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GREENING PLAN: Prepare concept-level landscape plans for each school site (11 total) to increase green space to meet minimum standards (i.e., 30%).

The Greening Index is a numerical, objective measurement of outdoor spaces at each school campus: their ground materials (softscape vs. hardscape) and shaded areas.

These initial measurements are expanded upon, interpreted, and set up for improvement via the Greening Metrics and Greening Score.

USABLE SPACE

Outdoor space accessible to the school during the school day.

GROUND MATERIALS

SOFTSCAPE

Any ground material that allows water to drain through it: planting, lawn, decomposed granite, mulch / wood chips, artificial turf.



LAWN AREA

Area with real grass.



HARDSCAPE

Any ground material that does not allow water to drain through it: concrete, asphalt, pavers



SHADED SPACE

OVERHANG (FROM SCHOOL BUILDINGS)

provides shade year-round



STRUCTURE

provides shade year-round



DECIDUOUS CANOPY

provides shade for part of the year



EVERGREEN CANOPY

provides shade year-round



GREENING INDEX: EXAMPLE



AMY IMAI ELEMENTARY SCHOOL
GREENING INDEX ANALYSIS | JULY 2023



GREENING INDEX SUMMARY: USABLE SPACE

SCHOOLS	USABLE SPACE (SF)	SOFTSCAPE (SF, % USABLE SPACE)	LAWN AREA (% SOFTSCAPE)	HARDSCAPE (SF, % USABLE SPACE)	SHADED SPACE (SF, % USABLE SPACE)	OVERHANG (% SHADED SPACE)	STRUCTURE (% SHADED SPACE)	DECIDUOUS CANOPY (% SHADED SPACE)	EVERGREEN CANOPY (% SHADED SPACE)
AMY IMAI ES	313,895	202,834 (65%)	83%	106,959 (35%)	41,002 (13%)	39%	15%	31%	15%
BENJAMIN BUBB ES	323,086	200,804 (62%)	72%	122,281 (38%)	95,142 (29%)	21%	10%	25%	44%
CRITTENDEN MS	224,418	67,998 (30%)	58%	156,419 (70%)	45,282 (20%)	32%	5%	31%	32%
GRAHAM MS	263,703	119,853 (45%)	83%	143,849 (55%)	53,705 (20%)	51%	13%	25%	11%
EDITH LANDELS ES	317,404	212,084 (67%)	91%	105,319 (33%)	86,324 (27%)	23%	8%	29%	40%
GABRIEL MISTRAL ES / MARIANO CASTRO ES	201,043	92,422 (46%)	68%	108,621 (54%)	54,289 (27%)	28%	7%	47%	18%
JOSE ANTONIO VARGAS ES	130,793	78,965 (60%)	0%	51,828 (40%)	11,396 (8%)	49%	40%	0%	10%
MONTA LOMA ES	304,388	199,506 (66%)	79%	104,881 (34%)	114,895 (37%)	14%	1%	77%	8%
STEVENSON ES	164,982	113,145 (69%)	81%	44,577 (31%)	22,685 (13%)	23%	34%	15%	28%
THEUERKAUF ES	270,239	157,889 (58%)	63%	112,350 (42%)	51,439 (19%)	23%	7%	44%	26%

03

GREENING METRICS & SCORES

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The Greening Metrics measure the student and staff experience of outdoor school environments, encompassing the objectives for Outdoor Greening and Learning at MVWSD: Physical Comfort, Mental Well-being, Exploration & Discovery, Outdoor Learning, Sustainability & Operations, Student Safety & Experience.

The Greening Metrics are assessed at each school by Carducci and school principals to comprise the Greening Scores.

INTRODUCTION

The following are a set of categories to measure the performance of outdoor school environments. Together, they encompass the aforementioned objectives for Outdoor Greening and Learning at MVWSD.

These categories were created with a number of references in mind, included in the Appendix of this document. One of these references included MVWSD's 2027 Strategic Plan, which states the district's goal to "ensure facilities and resources equitably serve all students."

We recommend that school assessments are conducted every five years. Additionally, this is intended to be a living document that responds to changing conditions at school sites and the district as a whole.



PHYSICAL COMFORT

MVWSD schoolyards are comfortable places that provide all students with access to a range of seasonally appropriate conditions, especially through the provision of shade, the expansion of tree canopy, and the reduction of the heat island effect. Green schoolyards offer a variety of seating options, with an emphasis on natural materials such as boulders, logs and natural paving.



MENTAL WELL-BEING

MVWSD schoolyards provide for the mental well-being of staff, students, staff and administration by offering opportunities and spaces for mindfulness, contemplation, and retreat. Green schoolyards also provide appropriate therapeutic sensory experiences.



EXPLORATION & DISCOVERY

MVWSD schoolyards increase the quality and quantity of interaction with nature by providing opportunities for natural exploration and discovery. Green spaces offer undirected, informal, and unstructured play experiences that encourage students to use their imagination and pay attention to their settings.



OUTDOOR LEARNING

MVWSD schoolyards provide opportunities to learn outside. Learning spaces cater to all ages and abilities, and are located and designed to encourage frequent use. Green schoolyards also encourage ecological literacy by connecting to the greater regional context and providing amenities for outdoor classrooms and instruction.



OPERATIONS & SUSTAINABILITY

MVWSD schoolyards are operationally and ecologically sustainable sites that maximize the use of native and adapted planting, use efficient irrigation systems, limit the use of lawn and impermeable surfaces to areas where it supports specific program needs, and create opportunities for stormwater capture and infiltration. Green schoolyards support site-specific needs, respect maintenance capacity and meet broader District objectives.



STUDENT SAFETY & EXPERIENCE

MVWSD schoolyards are safe spaces where students can access a range of recreational and learning opportunities within the supervision capacity and identified use zone of the school site. Safety is enhanced by buffering and defining student spaces.

GREENING SCORING INSTRUCTIONS

In order to propose improvements, schools must assess their current conditions.

Category scores allow schools to see specific opportunities for improvement.

Overall school scores give a general impression of the quality of the school outdoor environment.

To assess Outdoor Greening and Learning at each MVWSD school:

1. Calculate scores for each category
2. Add together all category scores for an overall school score

HOW TO CALCULATE CATEGORY SCORES:

8 - 10 ITEMS SATISFIED	=	EXCELLENT
4 - 7 ITEMS SATISFIED	=	ADEQUATE
0 - 3 ITEMS SATISFIED	=	NEEDS WORK
ITEM NOT APPLICABLE TO SCHOOL	=	NOT APPLICABLE

EXAMPLE:

1	Designated quiet zones	✓	Checks for satisfied items
2	Outdoor space adjacent to classrooms for movement, conflict resolution, and emotional & physical regulation	✓	
3	Semi-private structures or spaces	✓	
4	Opportunities for student horticulture	✓	
5	Planting engages all five senses		
6	Therapeutic interventions: sensory wall, walkway, auditory features	✓	
7	Dedicated spaces for special needs students and staff	✓	
8	Student creations are used or on display	✓	
9	Space for art production and/or dramatic play		
10	Space for messy play	✓	
	TOTAL SCORE: MENTAL WELL-BEING	8	Total Points from Category Checklist XX / 10







HOW TO CALCULATE OVERALL SCHOOL SCORES:

41 - 60 TOTAL POINTS	=	EXCELLENT
21 - 40 TOTAL POINTS	=	ADEQUATE
0 - 20 TOTAL POINTS	=	NEEDS WORK




EXAMPLE:

SCHOOLS	SCORE						
SCHOOL NAME	34 / 60 ADEQUATE	3/10	3/10	3/10	3/10	3/10	4/10
	Sum of Total Points XX / 60 Points	Total Points From Each Category Assessment Checklists XX / 10 Points					

SUMMARY: SCHOOL GREENING SCORES

SCHOOLS	SCORE						
AMY IMAI ES	18/60 NEEDS WORK	2/10	2/10	3/10	3/10	4/10	4/10
BENJAMIN BUBB ES	23/60 ADEQUATE	2/10	4/10	3/10	5/10	3/10	6/10
CRITTENDEN MS	14/60 NEEDS WORK	2/10	1/10	2/10	1/10	3/10	5/10
GRAHAM MS	23/60 ADEQUATE	3/10	5/10	0/10	4/10	3/10	8/10
EDITH LANDELS ES	19/60 NEEDS WORK	5/10	2/10	2/10	3/10	2/10	5/10
GABRIEL MISTRAL ES	33/60 ADEQUATE	5/10	6/10	3/10	5/10	7/10	7/10
JOSE ANTONIO VARGAS ES	13/60 NEEDS WORK	1/10	2/10	0/10	1/10	4/10	5/10
MARIANO CASTRO ES	18/60 NEEDS WORK	2/10	3/10	1/10	2/10	5/10	5/10
MONTA LOMA ES	10/60 NEEDS WORK	4/10	0/10	3/10	1/10	1/10	1/10
STEVENSON ES	21/60 ADEQUATE	3/10	4/10	0/10	5/10	5/10	4/10
THEUERKAUF ES	15/60 NEEDS WORK	3/10	2/10	3/10	3/10	1/10	3/10

Transfer scores from category assessment pages

-  PHYSICAL COMFORT
-  MENTAL WELLBEING
-  EXPLORATION & DISCOVERY
-  OUTDOOR LEARNING
-  OPERATIONS & SUSTAINABILITY
-  STUDENT SAFETY & EXPERIENCE



PHYSICAL COMFORT

- Tree placement on the interior
- Tables/seats outside classrooms
- Accessible shaded areas
- Color on blacktop
- Comfortable outdoor learning areas (seats with backs, tables, shade, accessibility)
- More seating areas for smaller groups



MENTAL WELL-BEING

- More student artwork
- Add sensory elements
- Improve usability of living classroom garden
- Areas for different kinds of movement
- Therapeutic spaces that are accessible for all students at all times of day



EXPLORATION & DISCOVERY

- Nature play areas
- Improve usability of outdoor spaces (visibility, proximity to classrooms, seating, etc.)
- Staff training for outdoor class exercises
- Opportunities for wildlife observation



OUTDOOR LEARNING

- Improve usability of outdoor classrooms (instructional tools, proximity to classrooms, seating, tables, etc.)
- More educational signage
- Cultural learning opportunities related to local & indigenous communities



OPERATIONS & SUSTAINABILITY

- More consistent maintenance (some PTA/ outside volunteer involvement/school clubs)



STUDENT SAFETY & EXPERIENCE

- More welcoming pick-up/drop-off areas (more seating, shade, planting)
- Repair broken/aging infrastructure/equipment
- Address tripping hazards

04

GREENING OPPORTUNITIES

HEAT ISLAND MITIGATION

- Increasing more tree canopy
- Incorporate painted asphalt & natural surfacing materials

SEATING/GATHERING AREAS PROTECTED FROM ELEMENTS

- Increasing Tree Canopy
- Activating existing shaded areas
- Provide Amenities at School Frontage

THERAPEUTIC INTERVENTIONS

- Contemplation spaces
- Sensory walk
- Sensory planting

NATURE PLAY

- Natural Materials
- Adding topography
- Vestibular Movement

ECOLOGICAL LITERACY

- Native Planting
- Signage
- Observation/Exploration



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Green Ribbon Schools Application Update

Green Ribbon Schools Award Program

Application was submitted Oct. 27, 2023

- Typically Scored in Mid-January 2024
- State Award Ceremony on Earth Day April 22, 2024

State Program Scored and Recognized in the following manner:

- Bronze Level: Achievement of 55.0 - 64.9%
- Silver Level: Achievement of 65.0 - 74.9%
- Gold Level: Achievement of 75% or better
- Green Achievers (4 from California): The highest achievement, given to the US Dept. of ED-GRS as a nominee



U.S. DEPARTMENT OF EDUCATION



Green Ribbon Schools Award Program

Three Pillars:

- Pillar I: Reduce environmental impact and costs
- Pillar II: Improve the health and wellness of schools, students, and staff
- Pillar III: Provide effective environmental education, which teaches many disciplines, and is especially good at effectively incorporating STEM, civic skills, and green career pathways

Pillar I - Reduce Environmental Impact and Costs

Highlights our resolve to conserve energy and natural resources while exercising sound stewardship of financial resources:

- Savings of \$400k of energy costs in first stage of Solar implementation, will increase after full year.
- Reduction of 394.5 MTECO₂ (Metric Tons Equivalent CO₂/yr.)
- Between our Photovoltaic System and grid electricity purchases from Silicon Valley Clean Energy, 77% of our electricity is certified renewable.
- Reduction of campus water use (not fields) of 13%
- 56% Solid waste diversion rate (by recycling and composting)

Pillar II - Improve the Health and Wellness and Staff

Highlights of our commitment to provide healthy school environments:

- Minimal use of pesticides, using green alternatives when possible.
- Modern or new Heating, Ventilation and Air Conditioning units at all campuses. Portable air purification systems in each classroom.
- Farm to Summer, Healthy and Sustainable Eating Programs
- Health & Wellness Committee work
- Coordinated School Health Approach

Pillar III - Provide Effective and Sustainability Education

Highlights of Pillar III: Provide effective environmental education:

- Integrated effective environmental as sustainability education into our curriculum.
- Co-curricular programs such as Yosemite, Walden West and local field trips.
- Environmental Education woven into Science, Technology, Engineering and Math (STEM) through Project Based Learning.

Green Ribbon Schools (GRS)

Application Next Steps:

- The GRS program is an iterative process designed for schools to reach full sustainability across all three pillars.
- Some Schools/Districts take a several years to reach full integration and the National GRS Award.
- CDE will provide application reviews in Jan. or Feb. 2024
- Continue our Sustainability Work - Target Gaps
- Earth Day Celebration - April 22, 2024
- May is Green Schoolyards Month in CA
- Can reapply in Oct. 2024 if necessary



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Questions