GREENING METRICS & SCORING

# **GREENING METRICS**

#### 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.



#### **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.



## 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.



# **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.



## **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 interactive experiences that encourage students to use their imagination and pay attention to their settings.



# 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.

Metric 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 metric
- 2. Add together all metric 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	- - -

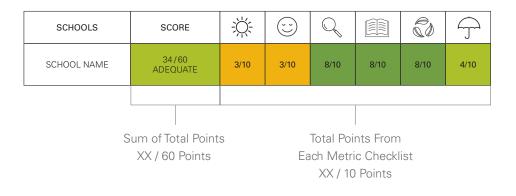
#### **EXAMPLE:**

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

#### HOW TO CALCULATE OVERALL SCHOOL SCORES:



#### **EXAMPLE:**



# METRIC CHECKLIST: PHYSICAL COMFORT



1	Seating areas are sheltered from sun, rain, and wind	
2	Multiple seating areas for different group sizes and activities, with at least one space for large school functions	
3	Learning and gathering areas are accessible and comfortable to students of all relevant ages and abilities	
4	Visual screening between campus and neighboring areas; planting buffers nearby noise	
5	Tree canopy will eventually cover 30% of school property	
6	Forest or grove setting	
7	Natural materials (mulch, decomposed granite, stone, etc.)  are accessible for physical interaction	
8	Shaded, comfortable lunch area	
9	Existing shaded spaces are programmed to encourage use	
10	Heat island effect mitigated by painting asphalt with lighter, more reflective colors	
	TOTAL SCORE: PHYSICAL COMFORT	0



### ADDITIONAL NOTES

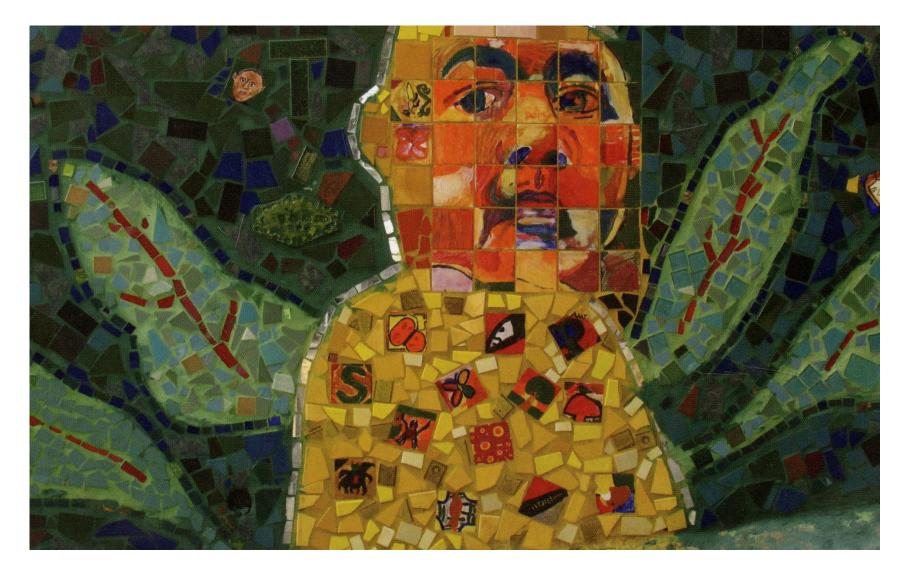
### SCORING GUIDE:

0-3  $\checkmark$ 's = NEEDS WORK | 4-7  $\checkmark$ 's = ADEQUATE | 8-10  $\checkmark$ 's = EXCELLENT

# METRIC CHECKLIST: MENTAL WELL-BEING



1	Quiet, semi-private spaces for contemplation	
2	Outdoor spaces for conflict resolution, and emotional & physical regulation are adjacent to classrooms	
3	Use zones on campus are laid out and defined to minimize conflict	
4	Opportunities for student horticulture	
5	Planting and materials engage all five senses	
6	Therapeutic interventions: sensory wall, walkway, auditory features	
7	Therapeutic interventions are accessible to the whole school population	
8	Student creations are used or on display	
9	Space for art production and/or performance	
10	ELEMENTARY: Space for messy play in a managed/controlled space (eg. mud table) MIDDLE: Spaces for socializing in various group sizes	
	TOTAL SCORE: MENTAL WELL-BEING	0



### ADDITIONAL NOTES

#### **SCORING GUIDE**:

0-3  $\checkmark$ 's = NEEDS WORK | 4-7  $\checkmark$ 's = ADEQUATE | 8-10  $\checkmark$ 's = EXCELLENT

# METRIC CHECKLIST: EXPLORATION & DISCOVERY



1	Areas with varied topography	
2	Environment is explicitly designed to change with climate & weather conditions over time, and for student engagement	
3	At least one natural structure provides an outdoor "destination"	
4	Areas for native wildlife habitat	
5	Variety of tree types (deciduous/evergreen, small/large)	
6	Diverse planting palette without Cal-IPC-identified invasives species*	
7	ELEMENTARY: Nature play opportunities (informal play with natural materials) MIDDLE: Outdoor Science Laboratory	
8	ELEMENTARY: Nature play area compliments the traditional play structures and opportunities MIDDLE: Discovery Path connects distinct spaces around the campus	
9	ELEMENTARY: Movable/flexible play elements MIDDLE: Customizable outdoor space with movable furnishings	
10	ELEMENTARY: Nature play elements allow for vestibular movement MIDDLE: Natural areas with opportunities for physical challenges (e.g. a "Confidence Course")	
	TOTAL SCORE: EXPLORATION & DISCOVERY	0

#### **SCORING GUIDE**:

0-3  $\checkmark$ 's = NEEDS WORK | 4-7  $\checkmark$ 's = ADEQUATE | 8-10  $\checkmark$ 's = EXCELLENT



## ADDITIONAL NOTES

\*Cal-IPC (California Invasive Plant Council) works to stop the spread of invasive plants across California They lists invasive plants on their website: https://www.cal-ipc.org/plants/inventory/

# METRIC CHECKLIST: OUTDOOR LEARNING



1	Facilitate and support student understanding of their environment through data collection, informed observations and guided learning	
2	Outdoor learning garden provides opportunities for students to participate in every stage of gardening (seeding, planting, harvesting, composting)	
3	Outdoor learning garden has seating, water, secure storage, and an appropriate number of raised beds	
4	Outdoor learning garden is shaded for comfort	
5	There is an outdoor space suitable for classroom instruction	
6	District's maintenance staff is familiar with Bay-Friendly and other sustainable maintenance practices	
7	School organizes community maintenance days	
8	Native plant garden or native planting throughout outdoor areas increases local ecological literacy	
9	Educational signage and/or artwork makes cultural references to local community	
10	Green infrastructure* is visible through signage and/or design	
	TOTAL SCORE: OUTDOOR LEARNING	0



#### ADDITIONAL NOTES

#### **SCORING GUIDE**:

0-3  $\checkmark$ 's = NEEDS WORK | 4-7  $\checkmark$ 's = ADEQUATE | 8-10  $\checkmark$ 's = EXCELLENT

\*Green infrastructure filters and absorbs stormwater through a combination of natural and built materials. Examples of green infrastructure include: rain gardens, bioswales, infiltration basins, green roofs, permeable paving, subsurface detention systems.

# METRIC CHECKLIST: OPERATIONS & SUSTAINABILITY



1	Planting suited to the regional climate and campus microclimates	
2	Plants are irrigated with efficient systems	
3	Stormwater is actively captured and/or infiltrated on site	
4	Lawn limited to necessary areas (playfields, etc.)	
5	Impermeable surface limited to necessary areas (ball play, circulation, etc.)	
6	Library has adjacent seating/instructional outdoor space	
7	Existence of a schoolyard committee (dedicated or part of a related group)	
8	School community outside of maintenance staff (students included) involved in schoolyard stewardship	
9	School has acquired outside resources (community partnerships and/or funding) for outdoor greening & learning	
10	School has an action plan/design vision for future school site improvements	
	TOTAL SCORE: OPERATIONS & SUSTAINABILITY	0



### ADDITIONAL NOTES

#### **SCORING GUIDE**:

0-3  $\checkmark$ 's = NEEDS WORK | 4-7  $\checkmark$ 's = ADEQUATE | 8-10  $\checkmark$ 's = EXCELLENT

# METRIC CHECKLIST: STUDENT SAFETY & EXPERIENCE



1	Natural features define and reinforce the schoolyard boundary with public shared-use areas	
2	Natural features define and reinforce distinct outdoor spaces	
3	School entry reflects greening and sustainability objectives	
4	Waiting areas for pickup and dropoff have suitable amenities (shelter, seating, adequate visibility)	
5	Site exiting and accessibility requirement are maintained	
6	Movement between outdoor spaces is fluid	
7	Recreation is encouraged in supervised areas of campus are easily accessible from school buildings	
8	Gathering spaces for small groups in a natural setting	
9	Outdoor learning garden is secure but visible through gates, fencing and/or planted screens	
10	Loose materials are not sharp or heavy and tripping hazards are mitigated	
	TOTAL SCORE: STUDENT SAFETY & EXPERIENCE	0



### ADDITIONAL NOTES

### SCORING GUIDE:

0-3  $\checkmark$ 's = NEEDS WORK | 4-7  $\checkmark$ 's = ADEQUATE | 8-10  $\checkmark$ 's = EXCELLENT

# SUMMARY: SCHOOL GREENING SCORES

SCHOOLS	SCORE	-\\.		Q			<u></u>
AMY IMAI ES	17/60 NEEDS WORK	2/10	2/10	3/10	3/10	4/10	3/10
BENJAMIN BUBB ES	23/60 ADEQUATE	2/10	4/10	3/10	5/10	3/10	6/10
CRITTENDEN MS	13/60 NEEDS WORK	2/10	1/10	2/10	1/10	3/10	4/10
GRAHAM MS	22/60 ADEQUATE	3/10	5/10	0/10	4/10	3/10	7/10
EDITH LANDELS ES	18/60 NEEDS WORK	5/10	2/10	2/10	3/10	2/10	4/10
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 WELL-BEING



EXPLORATION & DISCOVERY



OUTDOOR LEARNING



OPERATIONS & SUSTAINABILITY



STUDENT SAFETY & EXPERIENCE