

Facilities Update

August 7, 2024

PRESENTED BY

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Facilities Development and Planning

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Facilities and Operations

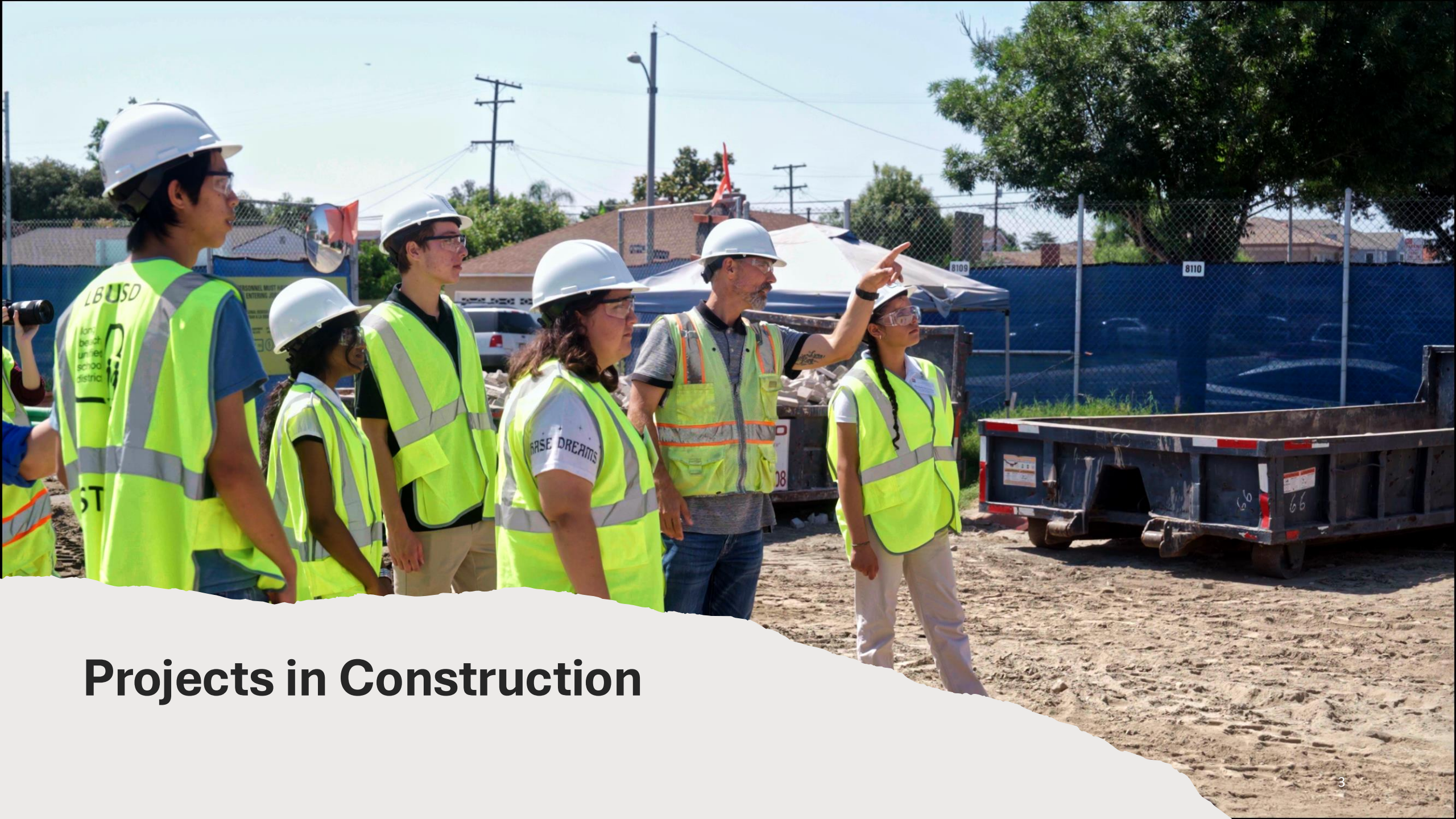


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Agenda



- Building Program Update
 - Building Program Highlights
 - Projects in Construction
 - Projects in Planning
 - Community Workforce Development Agreement
- Heat Mitigation Efforts
- District-Wide Sustainability Plan



Projects in Construction

Building Program Highlights

- HVAC
 - 36 schools completed by August 2024
 - 4 schools under construction
 - 11 schools in planning
- Shade Structures
 - 74 schools completed by August 2024
- Furniture Refresh
 - All classrooms completed by August 2024
 - 2,154 classrooms (193,860 pieces of furniture)
- State Funding
 - \$200.8m received in the last 5 years

Avalon K-12

Retaining Wall



Hamilton MS

Deep Soil Mixing





Mary Butler School



Millikan HS

HVAC: Electrical Upgrade



Birney Elementary School





Wilson High School Aquatics



Lakewood High School Aquatics



Projects in Planning

Poly HS

Transformation



Administration and Gymnasium



CTE and Classroom Buildings



Visual and Performing Arts Classroom Building



Student Quad

Washington MS

Transformation



Main Entrance View from Cedar Avenue



Aerial View from Pacific Avenue



Central Courtyard (Library View)



Central Courtyard (Classroom View)

Community Workforce Development Agreement



- Five-year pilot agreement through January 2025
- Ongoing meetings with Trades Council
- Update on metrics
- Next Steps

Questions

Heat Mitigation Efforts

- Chilled Water Dispensers
- Classroom and Hallway Fans
- Classroom Window Coverings
- Main Entry Window Tinting
- Bottle Filling Stations
- Accelerated HVAC Installation
- Reflective Paint on Blacktop

Heat Mitigation Efforts: Maintenance and Operations



- Four (4) Weeks Prior to Start of School
 - Remotely test all systems in equipped schools
 - Review inventory of classroom box/pedestal fans and supply as-needed in non-equipped schools
 - Verify existing chilled water systems are in operation
- Two (2) Weeks Prior to Start of School
 - Conduct follow up on any equipment that needed repairs
 - Verify all HVAC schedules align with school hours
 - Ensure all fans have been placed and are operational
- Week of School Opening
 - Final systems check



District-Wide Sustainability Plan



Agenda

1. Background & Key Drivers
2. Carbon Emissions Baseline Results
3. LBUSD Sustainability Plan –
Framework & Strategies
4. Next Phase of Work
5. Open Discussion





LBUSD's Green Schools Operations Energy and Sustainability Policy 3510.1

Adoption date: August 17, 2022

Implementation Goals Include:

- **Reduce energy & water use**
- Ensure construction complies with **green building standards**, specifically ensuring all new and replacement machinery is **zero-emissions**
- **Reduce vehicle emissions** (active transportation, electric vehicles, idling, etc.)



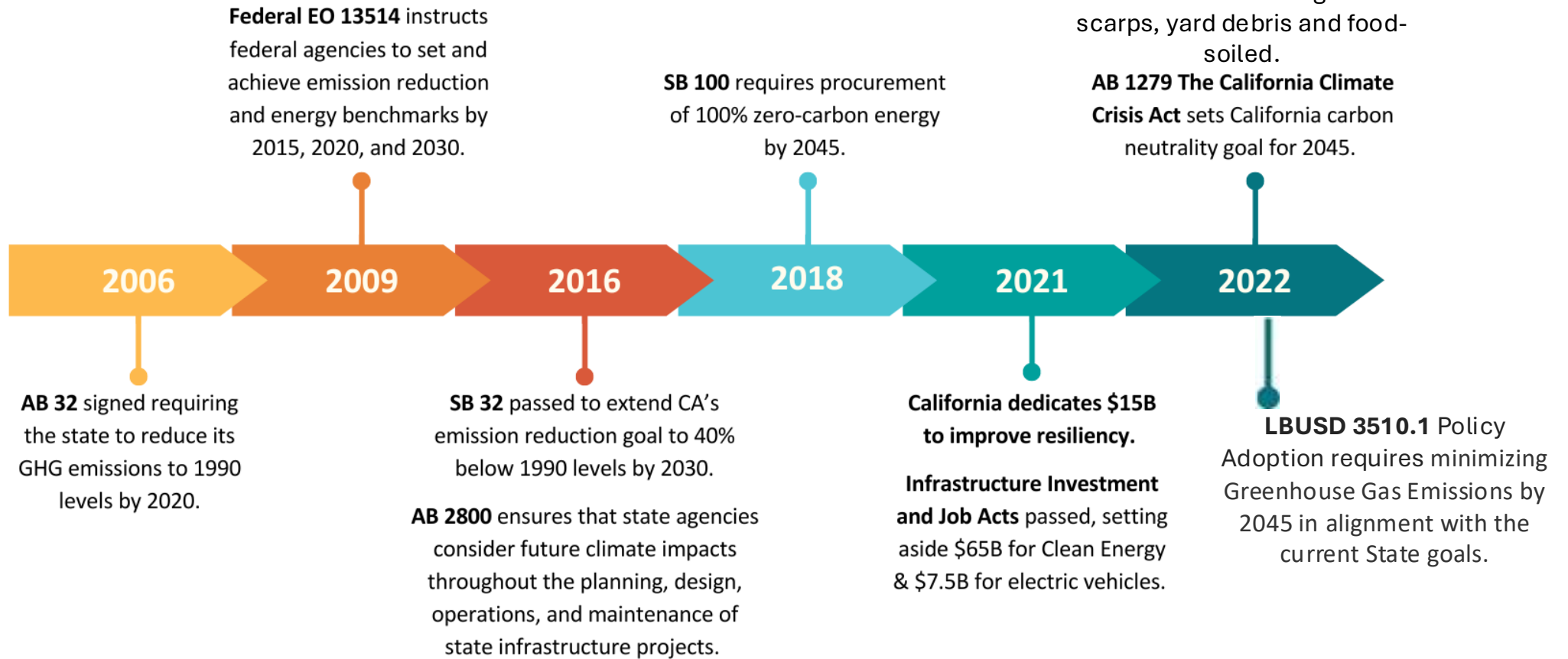
*“LBUSD will **aggressively minimize its Greenhouse Gas Emissions by 2045** in alignment with the current State goals and transition to zero-emissions vehicles and machinery as rapidly as recapitalization cycles and budgets allow.”*



Background & Key Drivers



State & Local Policy





Facilities Master Plan



Sustainability

Preparing Long Beach students for a lasting, healthy world



Wellness & Green Spaces

Offering spaces that improve cognitive development, mental well-being, and physical health



Health & Fitness

Preparing LBUSD students for healthy lifestyles



Facility Enhancements

Creating next generation learning environments where students can thrive



Instructional Technology

Building a high-speed technology future that supports project-based learning, where instruction and collaboration can occur anywhere and everywhere



Pre-K/T-K Expansion

Preparing lifelong learners for a brighter future in Long Beach



Community & Professional Development Space

Heightened access, public service, and instructional preparation



Safe Campuses

Protecting the well-being of LBUSD staff, students, and community



Career & Technical Education

Develop technical skills, knowledge and training for students to succeed in future careers



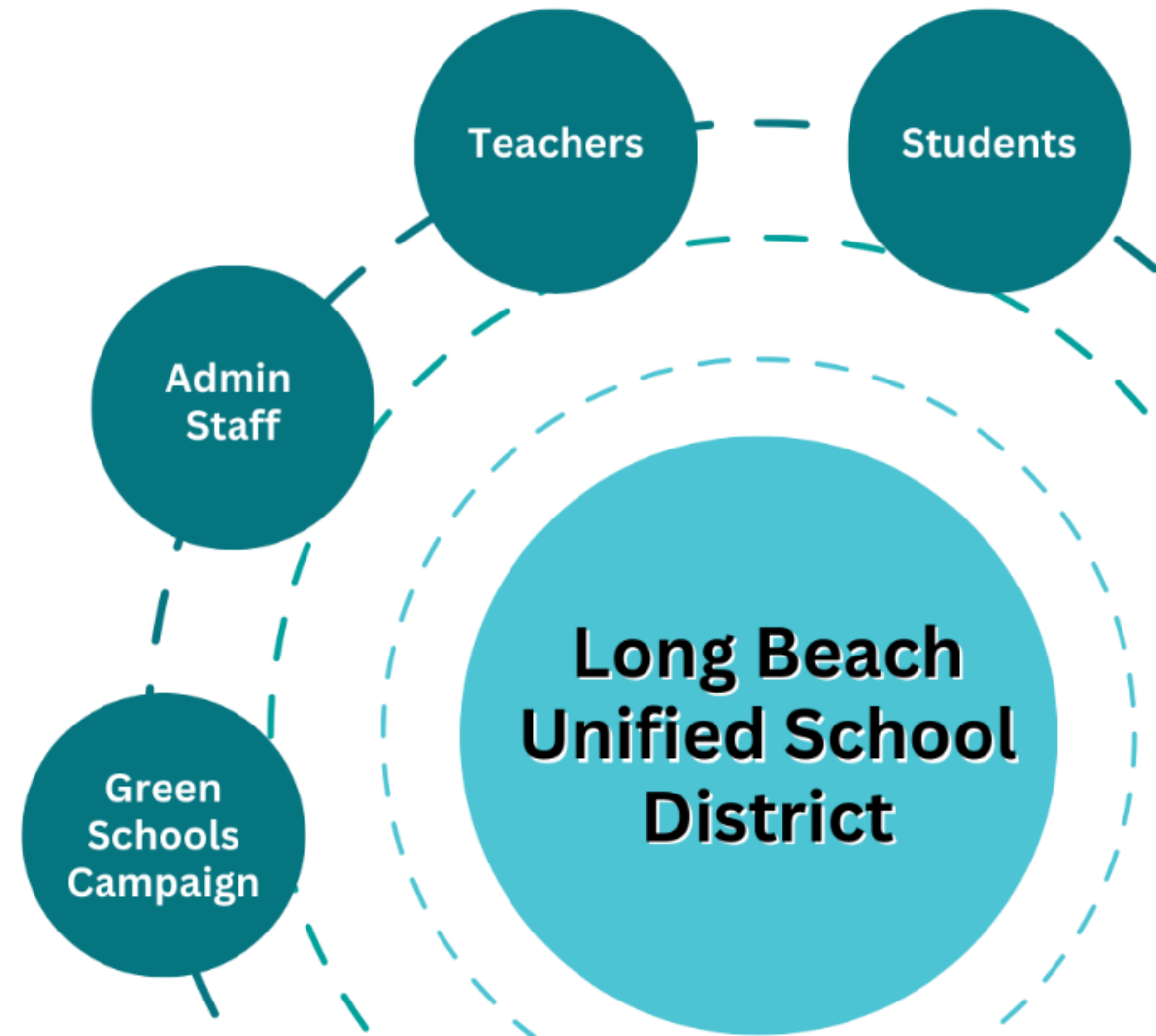
Media Centers

Reimagining LBUSD libraries as the campus hub of relationships and collaboration



Vision 2035 Planning Group

- Collaboration between students, staff, and other key stakeholders
- Multiple working groups held throughout 2023 to develop several strategies to support Vision 2035
- Communal effort to develop Strategy #9, specific to sustainability





Vision 2035 – Strategy #9

Goal 1: By June 2027, adopt, organize, and fully implement our District-Wide Sustainability Plan.

Goal 2: By September 2025, launch a Behavior Change Program to build awareness and support sustainability-oriented actions.

Goal 3: By June 2026, develop and launch our Equitable Green Schools Initiative.



Climate and Sustainability Task Force

- Diverse Task Force of students and staff to support the coordination and implementation of sustainable initiatives at LBUUSD.



Pete Marsh



**Dr. Richard
Turrentine**



Dr. Sashya Tullo



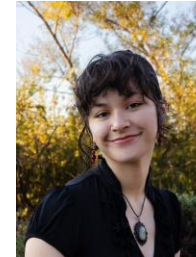
Audrey Rust
Student



Luna Salazar
Student



Isabella Morocco
Student



Kylie You
Student

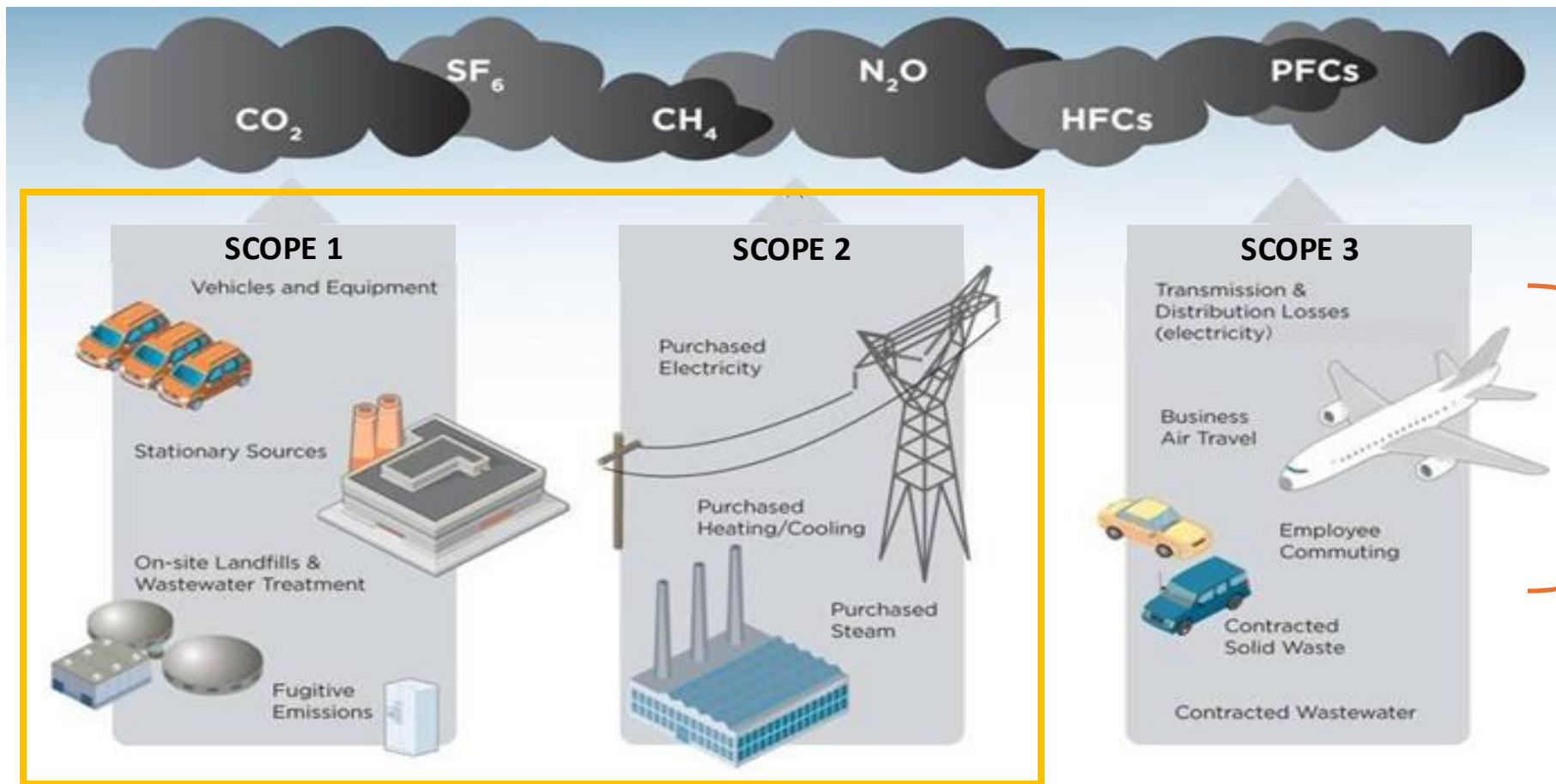


Amanda Zorick
Student

Carbon Emissions Baseline Results



Sources of GHG Emissions



Included in Sustainability Plan Scope



2022 Baseline GHG Emissions

Scope	Annual Emissions (MTCO ₂ e)	% Contribution
Scope 1	5,324.97	21%
Facility Natural Gas	3,632.79	14%
Maintenance Fleet Fuel Consumption - Gasoline	756.30	3%
Maintenance Fleet Fuel Consumption - Diesel	58.04	0%
Refrigerants	877.85	4%
Scope 2	11,250.87	45%
Facility Electricity	11,250.87	45%
Scope 3	8,490.97	34%
Indirect Emissions from Water Consumption	620.34	2%
Indirect Emissions from Municipal Solid Waste	7,870.62	31%
TOTAL	25,066.81	100%



Emissions Forecasting

- **The Business-As-Usual (“BAU”) Scenario** is a representation of the District’s emissions through 2045 should no additional action be taken internally to reduce emissions.
- **The Business-as-Planned (“BAP”) Scenario** builds upon the BAU and forecasts emissions through 2045 based on the projected GHG impacts of planned activities that are confirmed to occur in the coming years (such as installations of additional solar PV).

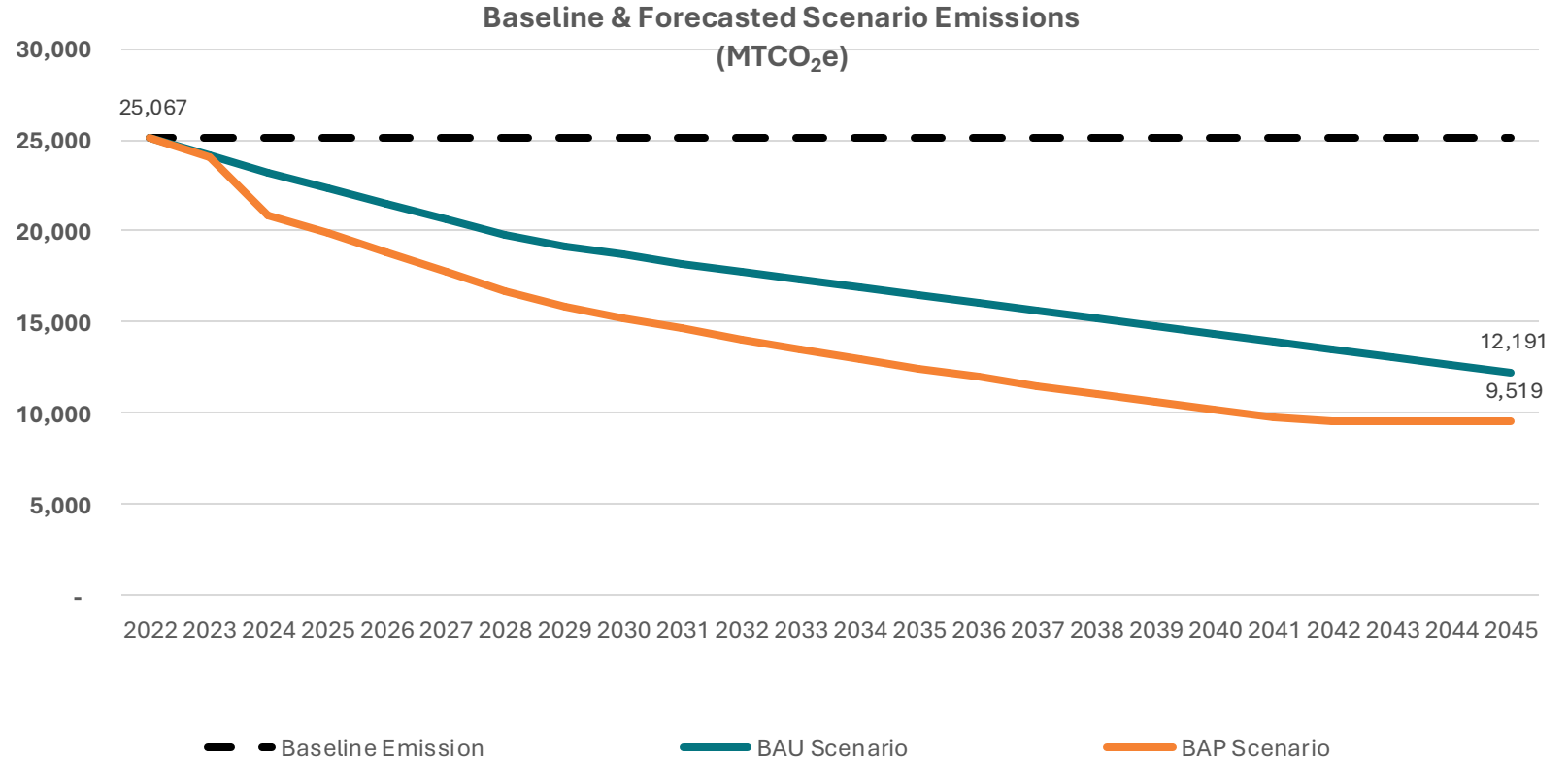


Figure 1-2: Baseline (2022) and Forecasted Emissions (MTCO₂e)

These forecasts help inform GHG reduction strategies



Plan Framework & Strategies



Draft Plan



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GHG Reduction Strategies

Priority	Strategy	Net Emissions Reduction through 2045 (MTCO ₂ e) <i>compared to BAP</i>
1	<i>Additional LED Lighting</i>	62
	<i>Additional Solar PV</i>	3,847
2	<i>Electrifying HVAC Units</i>	3,040
	<i>Electrifying Kitchen Equipment</i>	238
	<i>Electrifying Pool Heaters</i>	693
	<i>Vehicle Fleet Decarbonization</i>	391
3	<i>Artificial Turf</i>	135

Table 4-1: Summary of GHG Reduction Strategies

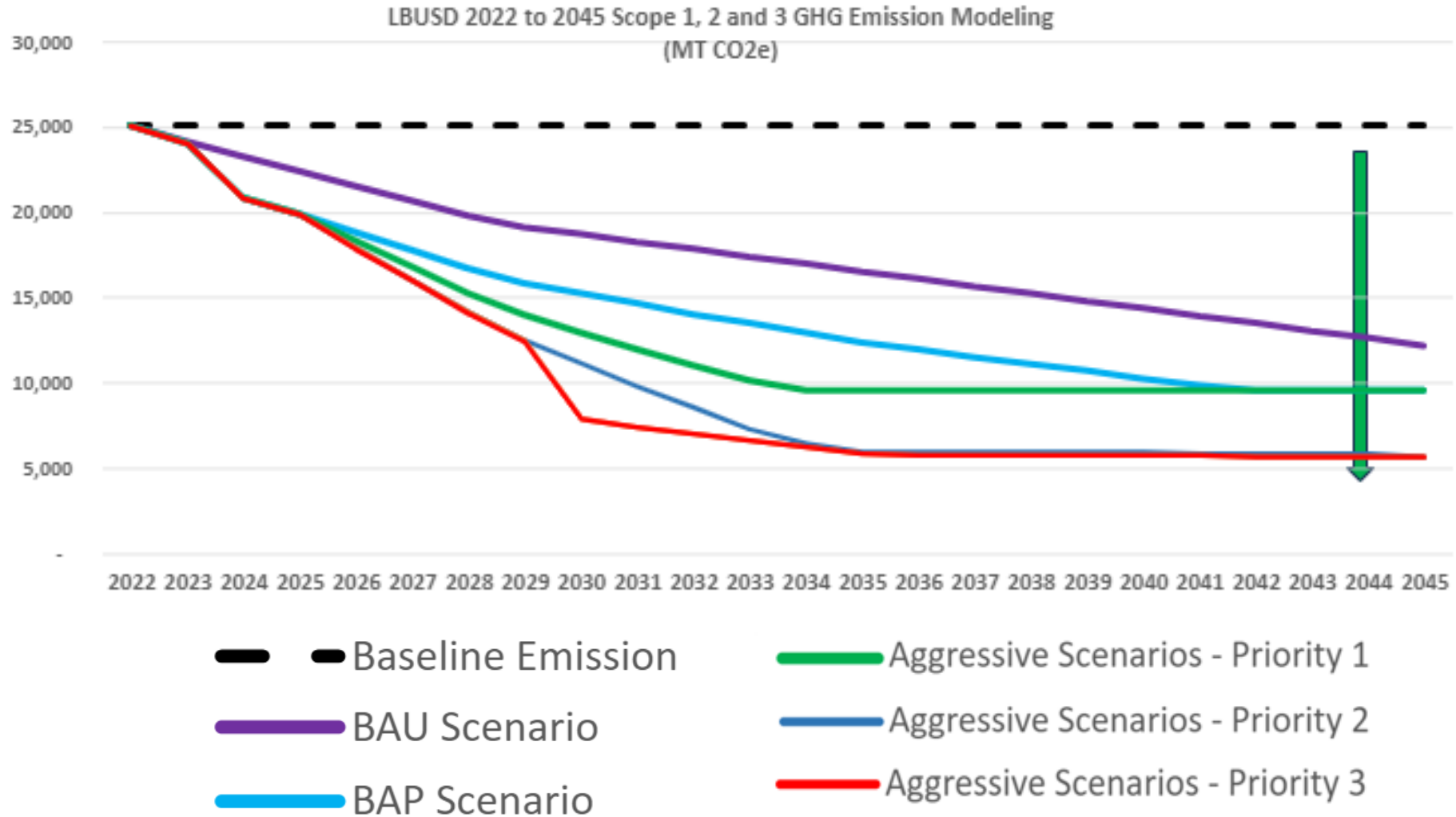
Priority 1: Solutions that have both an environmental incentive and financial incentive.

Priority 2: Solutions that reduce Greenhouse Gas emissions, but do not have immediate financial savings

Priority 3: Solutions that save Greenhouse Gas emissions, but require ongoing significant capital costs



GHG Reduction Scenario – All Priorities





Next Phase of Work



Next Phase of Work

- Board Approval of LBUSD Sustainability Plan - September 18, 2024
- Energy & Sustainability Manager - In recruitment
- Planning GHG reduction strategy implementation - Ongoing





Programmatic Strategies: Operations

Campus Operations	Programmatic Element	Strategy	GHG Reduction Co-Benefit	Education Co-Benefit	Community Co-Benefit
	Sustainable Procurement	Pilot programs for alternative products	✓	✓	
		Sustainable procurement policy	✓	✓	
	Landscaping & Grounds	Integrated Pest Management (IPM)			✓
		Herbicide-free campuses			✓
		Native & drought tolerant plant palette		✓	✓
		Drip irrigation & leak detection systems	✓		
		Electric grounds equipment	✓		✓
	Waste	Review of waste services contracts	✓		✓
		Organics collection & edible food donation	✓	✓	✓
		Furniture donation	✓		✓
		Signage, education, and training	✓	✓	
		Product ban for plastic bags and polystyrene food ware	✓		✓
	Facilities Design	Facilities Design Standards	✓	✓	✓



Programmatic Strategies: Vision 2035

Vision 2035 Programming	Programmatic Element	Strategy	GHG Reduction Co-Benefit	Education Co-Benefit	Community Co-Benefit
	Behavior Change Program	District-wide Energy & Sustainability Manager	✓	✓	✓
		Student engagement (Green Team & student ambassadors)	✓	✓	✓
		Baseline Analysis		✓	
		Development and implementation of KPIs		✓	
		Development of outreach strategies (training, signage, media campaigns)	✓	✓	✓
	Equitable Green Schools Initiative	Assessment of school site vulnerability and existing green space		✓	✓
		Equity matrix		✓	✓
		Landscaping Design Standards	✓	✓	✓
		Campus Green Action Plan	✓	✓	✓
	Environmental Literacy Framework	Baseline environmental literacy analysis		✓	
		Development of Environmental Literacy Framework		✓	✓
		Implementation of professional learning to support framework		✓	✓



Behavior Change Program

- **Vision 2035** aims to strengthen the sustainability and climate resilience of our District through behavior change that builds awareness and support sustainability-oriented actions.
- Currently drafting a workplan and identifying **Key Performance Indicators** (KPIs)
- Program will be implemented by **Districtwide Energy & Sustainability Manager** (recruitment in progress)





Environmental Literacy

Phase I: Baseline Assessment for Environmental Literacy in Curriculum

- [Curriculum and Instructional Materials Baseline Report](#) (Complete)
- School Site and Staff Baseline Report (Surveys, Interviews, TBD)

Phase II: Environmental Literacy Framework Creation

Vision, goals, and high-level strategies

- Scope and sequence of expectations for environmental literacy
- Partners and resources for environmental literacy

Phase III: Environmental Literacy Plan Implementation

- Professional Learning for staff and partners





Equitable Green Schools

This plan will be equitably implemented through the development and use of an Equity Matrix based on school location and site-specific factors. The diverse Climate and Sustainability Taskforce will support the process comprising internal and external stakeholders to maintain transparency.

Overview of Site-Specific Factors:

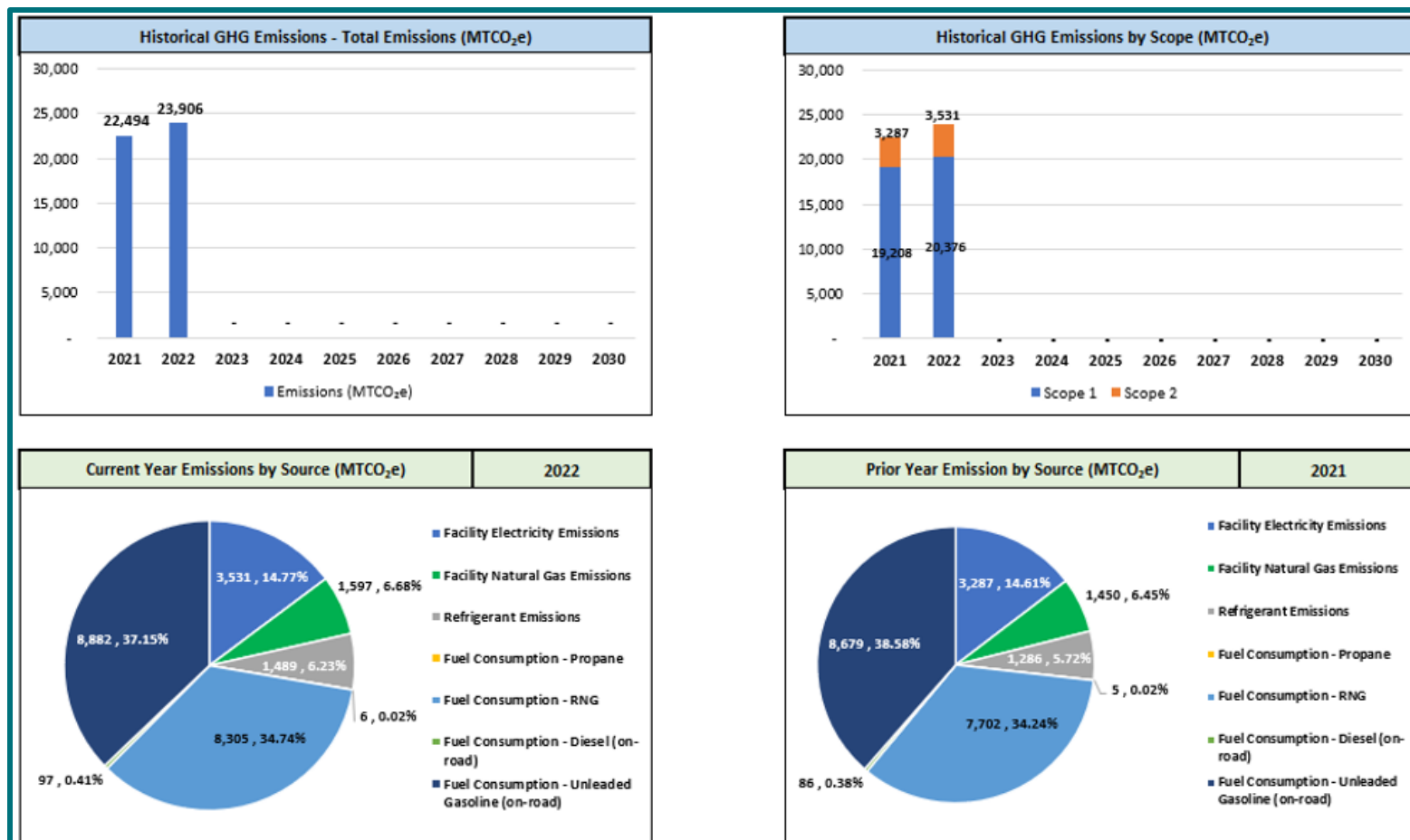
- Location
- Student population
- Infrastructure
- Environmental Factors
- Socio-economic landscape





Reporting Tool

- Reporting Tool measures Greenhouse Gas emissions and updates on an annual basis
 - Still in development
- LBUSD Sustainability Website will include data visualization



THANK YOU

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