Calendar Year 2023 Annual Report: **Sustainability**

Pictured: Starting in September 2023, scheduled service on the Yellow Line was increased from trains every 15 minutes to trains every 10 minutes. This was part of a suite of service changes to optimize our costs, energy use, and potential for ridership growth.

Let's go.

BART

General Manager Message

BART's sustainability efforts were all about innovation in 2023. Our staff continued to think outside the box to devise and implement creative solutions and programs that not only improve the rider experience – our number-one priority – but emphasize long-term sustainability. Public transit, after all, is one of the greenest ways to travel.

BART has long viewed itself as a steward of the environment, and it's a responsibility we take seriously. When our system was built more than fifty years ago, our founders prioritized shifting regional travel away from automobiles. They hoped to reduce traffic on already-choked roadways, but they were also ahead of their time in incorporating sustainable practices into the design and operation of the "Space Age" system. An example: Engineers chose to power our trains with electricity rather than fuel.

Speaking of our trains, in September 2023, BART removed legacy fleet vehicles from our typical service. In February 2024, we held a "retirement party" to send off our legacy fleet, which has carried millions of passengers since our system opened. Thousands of people showed up to take their final ride, many taking photos and videos and some even shedding tears as the last trains sailed toward their final resting place.

The decommissioned cars will take on new lives, however. Some are being repurposed for fun projects, such as a BART car short-term rental in the Sierra Nevada and a bike shop and clubhouse for youth in East Oakland. The rest of the cars are being recycled for scrap metal.

The new trains are more reliable and use 7% less energy that their predecessors, and we're saving even more energy by running shorter trains during off-peak hours. The shorter trains offer a variety of benefits. They save between 17 and 20 percent of BART's electricity costs, and using less energy eases our reliance on purchasing small amounts of non-GHG-free energy when market conditions are challenging (BART uses 88% greenhouse gas-free contracted electricity). The shorter trains are also easier to patrol, and therefore safer, and easier to clean, requiring substantially less time and water to scrub their interiors and exteriors.

Before you explore this report, I'd like to highlight a few other efforts BART has undertaken this year. Sustainability encompasses many different arenas, including accessibility and housing. In the past year, our Transit-Oriented Development (TOD) program constructed 531 new housing units next to or near BART stations. We also opened two major TOD projects: the Gateway at Millbrae Station and the Upper Yard at Balboa Park Station. The TOD program is helping to alleviate the housing deficit in the Bay Area and increase sustainable transit ridership. It's also revitalizing communities, strengthening the economy, and enhancing quality of life.

To close things out, I'd like to draw attention to two of our most popular sustainability programs: our Sheep and Goat Fire Mitigation and Falconry-Based Nuisance Bird Control programs. Last year, BART deployed 500 sheep to graze fire-prone sections of our property, sustainably mitigating fire risk. We now have more grazers than ever before, as the original herd started with just 100.

Lastly, we expanded our beloved and effective Falconry-Based Nuisance Bird Control to 12 stations. The program uses photogenic Harris's hawks, handled by skilled professionals, to mitigate pigeon problems at stations. The hawks and their handlers are unpopular with pests, but routinely generate looks of astonishment and appreciation from BART riders. Such programs are just one facet of our ever-expanding sustainability efforts.

I thank you for reading this report and hope you not only learn something new but are inspired to find ways to incorporate sustainability into your daily life.

Robert M. Powers
General Manager
San Francisco Bay Area Rapid Transit District

BART Calendar Year 2023
Sustainability Highlights

88%

of BART's contracted electric supply was greenhouse gas-free

15%

less energy used per day to power trains after September 2023 schedule change

26 lbs. **of CO2e emissions avoided** per average round trip, which is equivalent to about 31 miles driven in a passenger car

BART PD's Progressive Policing Bureau wins national award for innovation & helping create safer station environments

531

new housing units added as part of TOD program

Safe Route to BART

$2.3 million awarded

$2,312,977 in Safe Route to BART grant funds awarded to local jurisdictions to help improve walking and biking opportunities to access stations

500

sheep deployed to help BART manage wildfire risk

$10,000,000

in grant funds received to expand EV charging at BART stations

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Introduction

The *2023 Annual Report: Sustainability* communicates progress in BART's sustainability program. The purpose of the report is to provide transparency to the public and ensure BART's commitment to the goals of the program. The sustainability program aims to support a sustainable, healthy, and vibrant Bay Area through actions and investments that create a less car-dependent region and a greener transportation system.

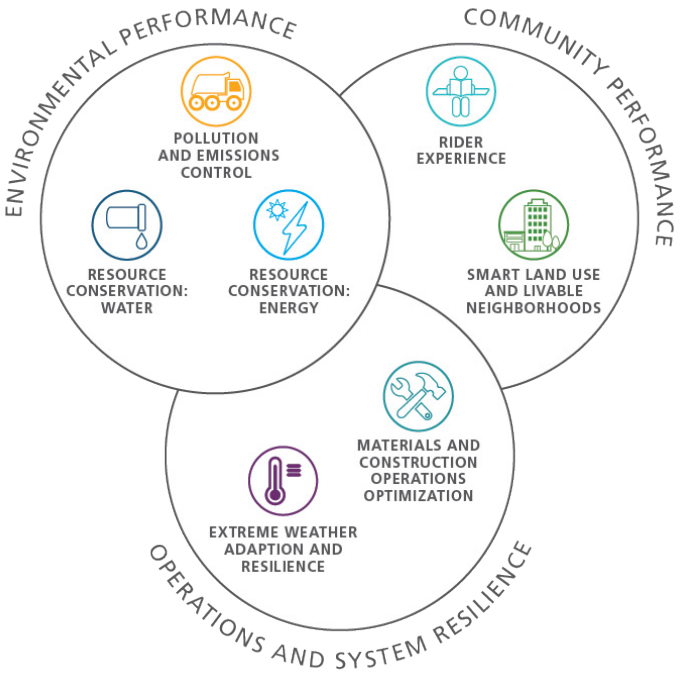
Report Format

The report contains a collection of case studies that highlight BART's achievements in sustainability for the reporting period and a summary of BART's sustainability performance metrics. In the Appendix, there are additional details about energy use, greenhouse gas emissions, and water use as well as status updates on each of the 120 action items identified in BART's Sustainability Action Plan.

About the Sustainability Program

In concert with the District's Sustainability Policy, adopted in 2017, BART published a 10-year Sustainability Action Plan that details the targets, current progress, and future actions to integrate sustainability as a standard practice throughout BART. The plan was created with input from numerous BART departments and in coordination with broader regional and American Public Transportation Association (APTA) sustainability goals. The detailed roadmap includes performance metrics to measure outcomes of actions that support BART's commitment to provide safe, affordable, equitable, and environmentally friendly transit. BART's energy, greenhouse gas emissions, and water targets were derived from Business as Usual (BAU) scenarios that utilize the baseline values in 2015 and planned growth in the number of stations, planned extensions to the existing lines, and expected improvements to the system. The committed and aspirational targets represent percentage reductions from the projected BAU values in 2025.

7 Sustainability Categories



The Sustainability Action Plan contains seven categories representing different aspects of BART's sustainability program. Each of the case studies, metrics, and actions contained in this report relate to goals identified in the Sustainability Action Plan for one or more of the categories.

The policy and action plan may be found at https://www.bart.gov/sustainability/policies.

Reporting Period

The report focuses on efforts from the 2023 calendar year (i.e., January 1 to December 31).

New Service Changes Save Energy and Costs, Improve Reliability

In September of 2023, BART updated its service schedule to better align it with current ridership trends and operational demands. The changes have helped BART save energy and costs, retire the legacy fleet, enhance efforts to keep BART safe, reduce wait times for riders, and improve the reliability of our system.

The COVID-19 pandemic presented a formidable public health challenge for transit agencies like BART. Ridership declined precipitously with shelter-in-place orders, increased remote work, and precautions due to the virus. However, many essential workers, people without cars, and others still relied on BART every day to get where they needed to go. Because of this, BART continued to run a robust schedule and encouraged social distancing by running most trains with 10 cars.

With the advent of COVID-19 vaccines, widespread acquired immunity to COVID-19, and better knowledge of COVID-19's routes of transmission, BART's service strategy has been redesigned to address new trends that have arisen.

One major change was shortening the length of trains based on current ridership levels, which, as of September 2023, was at approximately 43% of the pre-COVID-19 baseline. There are several operational benefits of deploying shorter trains. We will require less energy to provide our service, which saves between 17 and 20 percent of

After the service changes, we used approximately 15% less energy to power our trains, while continuing to support similar ridership levels.

BART's electricity costs. When market conditions are challenging and we're unable to procure enough renewable and GHG-free energy to meet all of our electricity demand, we rely on small amounts of non-GHG-free energy. Using less energy will help us avoid this reliance. We are also exploring opportunities to reduce the amount of water needed to wash the exteriors of the fleet. And our janitorial services, who clean the train interiors at the end of each line, need to grapple with fewer cars and can use the limited time in between service runs more efficiently.

The shorter trains have allowed BART to retire the legacy fleet and use the newer Fleet of the Future cars exclusively. The newer cars are approximately 7% more energy efficient than the legacy fleet. They are also more reliable, which helps streamline maintenance efforts at our shops and yards. The retired cars are being recycled for scrap metal where possible.

In terms of safety, BART Police Department (BPD) officers will have less distance to cover and will be able to walk more of the in-service train cars during their patrols. Additionally, the shorter trains help address feedback gathered through the "Not One More Girl" anti-harassment initiative. Empty and near-empty cars may increase antisocial behavior and prevent riders from having safety in numbers. Condensing riders into fewer cars means there may be more eyes and ears should incidents occur on a train.

Finally, BART has updated the train schedule to improve wait times. Now BART riders can expect a scheduled train at least every 20 minutes regardless of

the day or hour, an improvement over the prior 30-minute wait times that had been on the schedule at certain times. Evening service has been increased by 50% each day of the week. Service on the Yellow Line, which is BART's busiest, has been increased from trains every 15 minutes to every 10 minutes from Pittsburg/Bay Point. All Red Line trains will now stop at San Francisco International Airport (SFO) before Millbrae Station, which streamlines access to the airport. New scheduled transfers have reduced wait times for people taking multiple trains.

Finally, having fewer train cars means less traffic and congestion through the core of our system. This will allow BART to recover from delays faster than before and improve on-time performance. As of December 2023, year-over-year on-time performance during our peak travel times has improved for each month since the implementation of these service changes.

BART will continue monitoring crowding and will adjust train lengths as needed for special events and any new ridership trends that may develop in the future.

The shorter trains have allowed BART to retire the legacy (first) fleet and use the newer Fleet of the Future cars exclusively. The newer cars are approximately 7% more energy efficient than the legacy fleet.

Warm Springs Extension Wetland and Riparian Conservation Easement

As part of the Warm Springs Extension (WSX) into Fremont, BART has restored 11 acres of aquatic habitat near Fremont Central Park. The site now supports a variety of riparian, wetland, and wildlife species and helps manage stormwater runoff from the watershed of nearby areas.

The mitigation project restored riparian, wetland, and aquatic habitats that had been disrupted by development activities prior to BART ownership.

As BART service expands and new stations are added to the system, the District ensures that appropriate steps are taken to mitigate potential environmental impacts. However, impacts to wetland habitats and other aquatic resources are sometimes unavoidable during construction. To preserve the critical ecological benefits that these habitats supply, the District can restore, establish, enhance, or conserve aquatic resources in one location to offset unpreventable adverse impacts elsewhere.[1] This concept is called compensatory mitigation and it can be a regulatory requirement for certain projects.

The WSX Wetland and Riparian Conservation Easement is an example of this type of mitigation. Given landscape changes in other locations that occurred during construction of the WSX Project, the goals of this project were to:

- connect a pond and wetland areas with the neighboring Mission Creek system;
- restore riparian, wetland, and aquatic habitats that had been disrupted by development activities prior to BART ownership; and
- ensure that the site provides long-term habitat and ecological value proportional to any habitat loss stemming from the Warm Springs Extension Project.[2]

To accomplish these goals, the site was recontoured to encourage year-round ponding. This created two primary wetland areas at the site that are connected to the Mission Creek watershed via newly constructed channels. A variety of riparian and wetland plant species were planted throughout the parcel. The District also conducted 7 years of monitoring to ensure that the site was meeting the success criteria identified in the mitigation plan. The regulatory requirements for post-construction monitoring were deemed complete by the relevant agencies in June 2023.

About 11 acres of wetland and riparian habitat have been restored at the site, which now supports native plant species including tall flatsedge, slender hair grass, narrow-leaved cattail, and arroyo willow trees. The habitat is home to mule deer, raccoons, mallards, and herons. BART's maintenance activities have ensured 0% vegetation cover by invasive species on the parcel. During storm events, the site helps store stormwater runoff from the watershed of the nearby areas.

BART collaborated on this project with a team of ecologists, hydrologists and landscapers led by H. T. Harvey & Associates. The John Muir Land Trust will be responsible for long-term management of the parcel going forward.

[1] Wetlands Compensatory Mitigation | EPA

[2] BART Warm Springs Extension Project Blankstein Riparian/Wetland Mitigation Site Year 4 (2019) Monitoring Report

BART Focuses on Station Accessibility and Blind and Low-Vision Riders

BART continues to improve station access for a variety of riders. Investments in BART's station access support the broader livability goals of the Bay Area, reinforce sustainable communities, and enable riders to get to and from stations safely, comfortably, affordably, and cost-effectively.

Members of the blind and low-vision community were guided around 19th Street Oakland Station to help them gain more comfort in navigating the system on their own.

In January, BART hosted a safety orientation for the blind and low-vision community at the 19th St. Oakland Station. One platform at the station was taken out of service to host a stationary Fleet of the Future train and allow attendees to become familiar with the new trains. The attendees were guided around the station and trains to help them gain more comfort in navigating the system on their own. The event was followed by an online town hall to gather input on upcoming projects and to hear directly how BART can improve accessibility services. Building on feedback from these events, BART hired an intern to build tactile guideway descriptions for 20 stations, which can be found here. These tactile guideways enable blind and low-vision riders to independently travel through the station and from various access points, such as the bus intermodals. BART plans to host similar town hall sessions and engagements for the deaf and hard-of-hearing community and the mobility-impaired community.

This work builds on other accessibility improvements BART is making across the District. In 2018, BART evaluated all stations and identified 36 that needed accessibility improvements. These improvements include handrails, wall protrusion detection, curb ramps, public address systems, ramps, passenger loading paving, accessible and detectable paths, fare gate audible indicators, accessible phones, and hearing loops at station agent booths to make it easier to hear station agents. BART phased these stations into 6 groups and is completing construction for the first two groups. The next two groups are being planned for design.

BART continues to support passenger wayfinding, the process by which passengers orient themselves and go where they want. BART coordinated with the Metropolitan Transportation Commission to support the Regional Mapping and Wayfinding project. This project will unify signage, including regional transit identity, across all 27 Bay Area operators in all transit environments. BART collected input from all transit operators, working tirelessly to gather feedback from a variety of perspectives. Prototypes of the new signage will be installed at two locations in 2024, including the El Cerrito del Norte BART station. The prototypes will provide an opportunity for input and evaluation from installation to passenger use. Additional pilot locations are expected in 2025.

In 2023, BART kicked off the BART Bicycle Preferred Path of Travel Capital Plan (PPoT Plan), building on previous BART bicycle planning documents and the recent BART Walk and Bicycle Network Gap Study. The PPoT Plan focuses on improving bike access on BART property and safely connecting passengers with bikes to secure bike parking facilities and fare gates. After screening all BART

stations using criteria like lack of above-ground station access and upcoming transit-oriented development (TOD) projects, the PPoT Plan will ultimately include recommendations and high-level conceptual plans and estimates for bicycle access improvements at 22 stations. Work is closely coordinated with BART's Bike Advisory Task Force. Additionally, BART continues to add bicycle stairway channels, which assist with vertical circulation in stations by enabling customers to push their bikes up and down the BART stairways without carrying them. Phase one identified 7 stations to add channels independently of other concurrent projects. Detailed designs are complete and the first station in this phase, Coliseum, was installed in 2023.

BART started development of a safety action plan to improve roadway safety at and around BART stations, and improve bike and pedestrian access at stations. BART was awarded $1 million for the US Department of Transportation's Safe Streets for All (SS4A) Program, which supports the USDOT's goal of zero roadway deaths. BART's potential projects and investments could range from access improvements to increased train service to shift drivers to transit, thereby reducing fatalities on streets and roadways. This work complements BART's Safe Routes to BART Program, which uses voter-approved Measure RR funds to work with local agencies to complete station access programs. BART selected two projects to receive funding during the program's second round: complete streets improvement near El Cerrito del Norte Station and bikeway improvements near Fremont Station.

2023 was the third year of BART's Escalator Modernization program, which enhances rider safety and escalator reliability. Phase One of the project is focusing on the San Francisco Market Street stations: Embarcadero, Montgomery Street, Powell Street, and Civic Center/UN Plaza stations. Modernization efforts have been completed for 10 of the planned 41 total escalators. A key provision of the program requires the contractor to maintain a reliability rate of at least 96% for the new escalators during the life of the nearly 10-year contract. These escalators are more energy-efficient, with LED lighting, a "sleep mode," and variable frequency regenerative drives. These new features allow escalators to slow down and save electricity when no passengers are using them. Phase Two of the program will involve 38 escalators at the downtown Oakland and San Francisco Mission Street stations. Future phases will address the remaining 96 escalators in the system.

BART's new escalators are more energy efficient, with LED lighting, a "sleep mode," and variable frequency regenerative drives.

BART launched its "Tap and Go" parking payment, which allows BART parking users to pay for parking with one tap from the app home screen rather than needing to remember their stall number. Customers can also buy reserved parking (Single/Multi-day or Monthly) on BART's website in addition to the official BART app. This supports those who may use BART less frequently, such as people using BART to go to the airport.

Sources: Blind and low-vision riders gather at 19th St Oakland Station to learn how to navigate BART | bart.gov

Mission to increase accessibility for BART's blind and low-vision riders | bart.gov

BART awarded $1 million for roadway safety improvements | bart.gov

New BART Parking features | bart.gov

Transit-Oriented Development Projects Completed at Two BART Stations

In 2023, BART celebrated the opening of two transit-oriented development (TOD) projects: Gateway at Millbrae in April and Kapuso at the Upper Yard at Balboa Park in September. BART also celebrated the grand opening of the Waymark at Walnut Creek, which was highlighted in BART's 2022 Annual Sustainability Report. These TOD projects help BART achieve its sustainability goals by making it convenient for residents to take BART instead of driving.

The Gateway at Millbrae, pictured in the background, includes 400 new residential units, including 80 veteran-preferred affordable units; 157,000 square feet of office space; 44,000 square feet of mixed-use retail; and a 164-room hotel.

The Gateway at Millbrae is a multi-use development located adjacent to the Millbrae BART Station and built as part of BART's TOD strategy by Republic Urban Properties. The development includes 400 new residential units, including 80 veteran-preferred affordable units; 157,000 square feet of office space; 44,000 square feet of mixed-use retail; and a 164-room hotel. The development required reconfiguring station access to include new paseos for pedestrian and bicycle access and updated bus bays. As part of the development process, South Station Road was renamed to Harriet Tubman Way. The developer worked with the San Mateo NAACP to commission a public sculpture by San Francisco artist Cheryl Derricotte on site to honor the abolitionist.

The Millbrae Station is an important transit hub, currently serving BART, Caltrain, and SamTrans, and is a planned stop for the California High-Speed Rail project. SamTrans is relocating their headquarters to the newly built office space, further strengthening the regional connectivity of the space. The entire development was constructed on top of former BART parking lots near the existing BART parking garage, which remains.

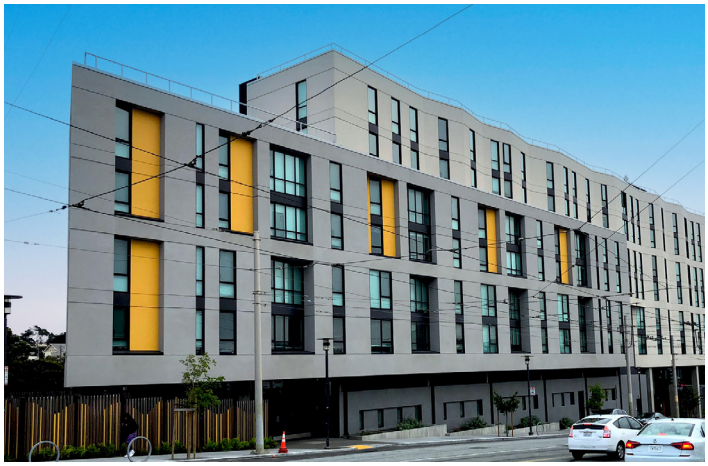
The Kapuso at the Upper Yard is an affordable, mixed-use development with 131 apartments for low- to moderate-income families, next to the Balboa Park Station and San Francisco Municipal Transit Agency's (Muni) Curtis E. Green Light Rail Center. BART partnered with the San Francisco's Mayor's Office on Housing and the project was developed jointly by Related California and Mission Housing Development Corporation on top of a former parking lot. While the development is mostly on City/County of San Francisco land, it was made possible by an easement on BART land.

The development includes a new plaza that increases access to transit, fosters community, and enhances quality of life. The plaza provides better access to transit, with stairs directly into the BART station, a new Bay Wheels bike share station, and an updated passenger loading area which includes a paratransit stop. There is access to both a Muni bus stop and multiple Muni rail lines adjacent to the development. The plaza has seating areas for transit customers, tenants, and the public, with the possibility of outdoor space being used by ground-floor retail or for community events. New trees were added throughout the plaza, along with ADA accessible paths, lighting, and security cameras. The development

team was intentional about using ground floor space for community serving needs. Currently, the ground floor space tenants include the Youth Art Exchange, Southwest Community Corporation, and the Mission YMCA Preschool center.

Both developments demonstrate powerful outcomes of partnerships between developers, jurisdictions, and stakeholders. "The Balboa development is a great example of collaboration between multiple agencies and jurisdictions to realize shared goals," says Carli Paine, BART's Group Manager of Transit-Oriented Development. "The project was spearheaded by the City of San Francisco's Office of Housing and Community Development and bringing in BART's land enabled the project to maximize how much housing they were able to deliver, and the whole neighborhood now gets to enjoy a beautiful new plaza and improved access to our station."

TOD remains a BART priority in our efforts to grow ridership, address the region's housing shortage, and support low-carbon transportation like walking, biking, and public transit. These all tie in with BART's sustainability goal to reduce emissions due to station access. TOD residents are more likely to commute on BART than non-TOD residents, and housing near transit produces fewer auto trips than conventional development. As such, many other TOD projects are at various stages of development, including at Fruitvale, North Berkeley, El Cerrito Plaza, Lake Merritt, West Oakland, and others. With so many projects and a strong interest from municipalities, BART has updated our TOD work plan to prioritize these developments in the near and long term.



The Kapuso at the Upper Yard is an affordable, mixed-use development with 131 apartments for low- to moderate-income families, next to the Balboa Park Station and San Francisco Municipal Transit Agency's (Muni) Curtis E. Green Light Rail Center.

Sources: Grand Opening of Gateway at Millbrae Station | Republic
Grand Opening of New Project Adjacent to Balboa Park Station | sf.gov

BART Receives Award for Progressive Policing Innovations

In 2020, BART launched its Progressive Policing and Community Engagement Bureau (PPCEB) to reimagine the District's approach to safety and address systemic social issues. The Bureau is comprised of unarmed Crisis Intervention Specialists and Transit Ambassadors who help connect people with support services and boost the visible presence of officers in the system without relying on traditional, armed policing. In 2023, the Bureau, which was the first of its kind among transit agencies in the U.S., received the American Public Transportation Association's (APTA) national Innovation Award. The PPCEB and other security efforts help BART achieve our goal of providing a reliable and safe transit option that significantly reduces the region's greenhouse gas emissions.

BART's Crisis Intervention Specialists have backgrounds in social work and help deter and diffuse acts of violence, harassment, and vandalism using conflict-resolution and de-escalation techniques.

Ensuring the safety of our riders is one of BART's highest priorities. Our sustainability performance is contingent on current and future riders' experience in our stations and trains. We want riders to feel safe enough to choose BART as their primary mode of travel because it will help shift travel away from automobiles and their associated climate change impacts. But there are many systemic social issues that BART must address in and around our system, including homelessness, drug addiction, mental health issues, poverty, and crime. All these issues can influence our riders' experiences and damage their perception of BART's security. Our commitment to environmental justice implores us to strike a balance between providing a safe and critical low-emission transportation resource for the Bay Area and avoiding over-policing that marginalizes communities.

The PPCEB's efforts embody the lessons BART has learned about equitable policing in our system. The Bureau's staff members work in special engagement teams that divert hundreds of calls for service that ordinarily would have resulted in a response from an armed officer. The Crisis Intervention Specialists serve as liaisons between BART Police and community-based organizations that provide mental health, housing, and other services. They have backgrounds in social work and help deter and diffuse acts of violence, harassment, and vandalism using conflict-resolution and de-escalation techniques. Transit Ambassadors are equipped with radios to report safety concerns and biohazards and are outfitted with Narcan to respond to drug overdoses. Having both of these specialized teams frees up time for our other officers to deal with issues that fall outside of the PPCEB's purview. This helps us maintain one of the fastest average police response times to emergencies in the Bay Area, at about 4 minutes.

For our implementation of the PPCEB, BART was one of four transit agencies to win a 2023 Innovation Award from APTA, which honors agencies that have "demonstrated innovative concepts or effective problem-solving techniques applied in the public transportation industry." BART is also championing other innovative ideas to improve safety, including installing new fare gates at our stations, promoting public safety campaigns such as "Not One More Girl", and sizing our trains with safety in mind.

Performance Metrics

RESOURCE CONSERVATION: ENERGY & GHG EMISSIONS

	Units	2015 (Baseline)	2016	2017	2018	2019	2020	2021	2022	2023	Target 2025[1,2]	
Total energy use	Megajoules (MJ) / vehicle revenue mile (VRM)	21.19	19.93	20.52	20.89	21.18	23.70	21.74	17.95	19.13	Committed **19.52**	Aspirational **19.19**
Total greenhouse gas (GHG) emissions	Metric tons of carbon dioxide equivalent (MT CO2e) / thousand VRM	1.92	1.65	0.23	0.25	0.26	0.11	0.10	0.05	0.31	Committed **0.31**	Aspirational **0.24**

RESOURCE CONSERVATION: WATER

	Units	2015 (Baseline)	2016	2017	2018	2019	2020	2021	2022	2023	Target 2025[3]	
Total potable water use	Gallons / VRM	0.64	0.65	0.86	0.95	0.85	0.98	0.78	0.53	0.68	Committed **0.43**	Aspirational **0.38**

[1]Total energy use: see Appendix for additional charts and information

[2]Total GHG emissions: see Appendix for additional charts and information

[3]Total potable water use: see Appendix for additional charts and information

Performance Metrics

SMART LAND USE AND LIVABLE NEIGHBORHOODS

	Units	2015 (Baseline)	2016	2017	2018	2019	2020	2021	2022	2023	Target 2025[4,5,6]
Residential units	# of units built (cumulative since 1993)	1,416	1,506	1,975	1,975	2,649	3,251	3,251	3,609	4,051	**7,000**
Affordable residential units	# of affordable units built (cumulative since 1993)	256	346	613	613	845	901	901	901	1,119	**2,400**
Office/commercial square footage	Square feet built (cumulative since 1993)	188,590	188,590	194,590	194,590	637,590	643,690	643,690	658,690	854,754	**1,000,000**
Mode share: active (walking and bicycling)	%	44%	Will be measured in next Station Profile (survey underway in 2024)								**52%**
Mode share: shared mobility	%	29%	Will be measured in next Station Profile (survey underway in 2024)								**32%**
Mode share: drive & park	%	27%	Will be measured in next Station Profile (survey underway in 2024)								**16%**
GHG emissions associated with passenger access to the station	kg of CO2 / rider / day	0.56	Will be measured in next Station Profile (survey underway in 2024)								**0.43**

RIDER EXPERIENCE

	Units	2015 (Baseline)	2016	2017	2018	2019	2020	2021	2022	2023	Target 2025[7,8]
Quarterly reporting of safety and performance indicators	Completed / Not Completed	Completed									**Completed**
Has BART met all adopted Performance Standards for Safety and Performance Comfort?	Yes / No	No									**Yes**

[4]Residential units, affordable residential units, and office/commercial square footage | bart.gov
[5]Mode share | bart.gov
[6]Mode share and GHG emissions associated with passenger access to the station: baseline calculations based on 2015 Station Profile Study results
[7]Reporting on safety and performance indicators | bart.gov
[8]The adopted Performance Standards for Safety and Patron Comfort consist of the following KPIs:
Safety KPI: see quarterly performance reports on crime against persons | bart.gov
Customer Satisfaction KPI: see quarterly performance reports on overall customer satisfaction | bart.gov

Performance Metrics

EMISSION AND POLLUTION CONTROL

Total solid waste and landfill diversion rate	BART's Sustainability Team is developing a Waste Management Plan to address and improve landfill, recycling, and composting across BART's facilities. As part of this Waste Management Plan, BART will collect data in order to establish a baseline and set realistic targets.

MATERIALS AND CONSTRUCTION OPERATIONS OPTIMIZATION

	Units	2015 (Baseline)	2016	2017	2018	2019	2020	2021	2022	2023	Target 2025
Percentage of BART Project Delivery Staff trained in BART Facilities Standards (BFS) Sustainability Controls	%		Training commenced in 2021.					18%	31%	90%	**100%**

EXTREME WEATHER ADAPTATION AND RESILIENCE

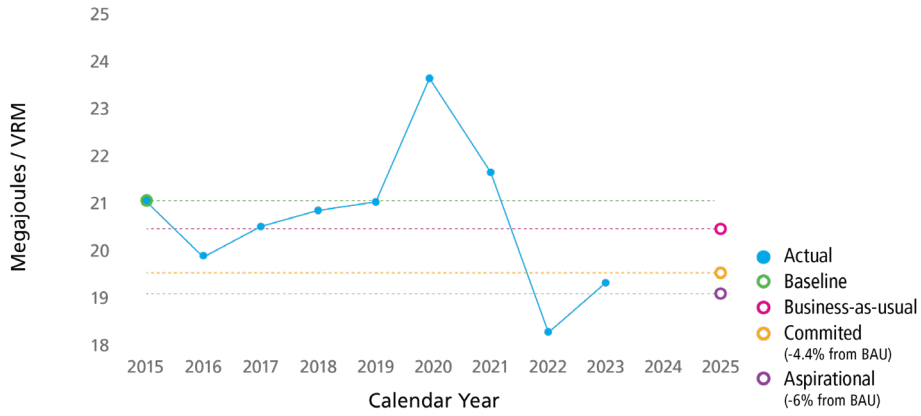
	Units	2015 (Baseline)	2016	2017	2018	2019	2020	2021	2022	2023	Target 2025[9]
100% High Priority Actions in the BART Local Hazard Mitigation Plan (LHMP) Actions underway or complete	%		Tracking commenced in 2021.					86%	86%	86%	**100%**

[9]High Priority Actions in the LHMP | bart.gov

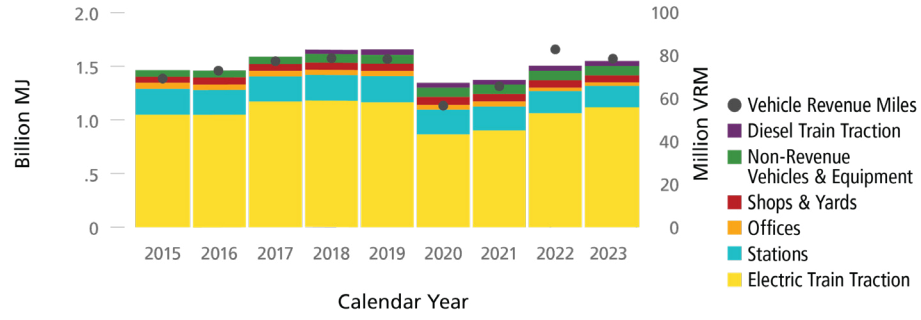
Appendix

Energy Use

Energy Use per Vehicle Revenue Mile (VRM)



Energy Use by Asset Category



In 2023, BART met its 2025 committed target for energy use per vehicle revenue mile (VRM). There were two changes driving BART's year-over-year changes. In late 2022, BART began offering additional service in the early mornings, which caused energy use to increase year-over-year for the first 8 months of 2023. However, in September of 2023, BART shortened the length of our trains from 10 cars to 8 or 6 cars to align our service with current ridership. This allowed BART to retire its legacy fleet, and exclusively use the new Fleet of the Future cars, which are built to be at least 7% more energy efficient than the older cars.

Overall, these changes meant that although BART reduced its baseline energy use for traction power after September, VRMs also decreased accordingly. Other categories like offices and stations remained more static throughout the year, causing the energy use per VRM across all BART operations to trend upward compared to 2022.

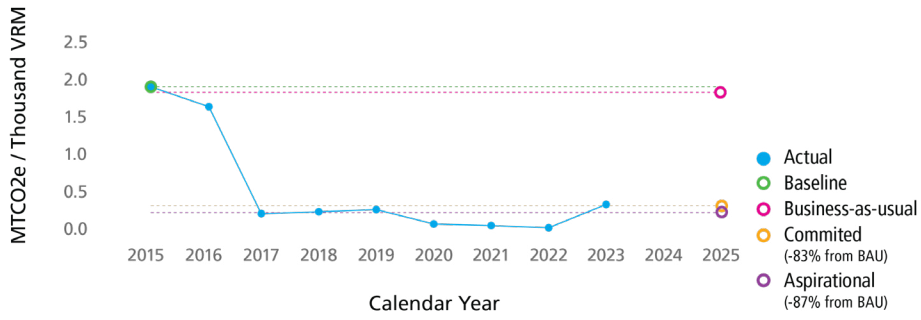
BART has also completed several projects to reduce energy use at stations and their parking garages by replacing old lighting fixtures with more energy-efficient LEDs. Total energy use at stations has decreased by approximately 11% compared to 2021. Energy use at offices has declined by 30% since 2021, largely due to the numerous energy conservation techniques employed at BART's new LEED Gold-certified headquarters.

BART's core system and Oakland Airport Connector are powered by electricity. The eBART Extension, a 10-mile extension connecting the Pittsburg/Bay Point and Antioch stations, opened in May 2018 and uses diesel-electric multiple unit technology instead of electrified rail.

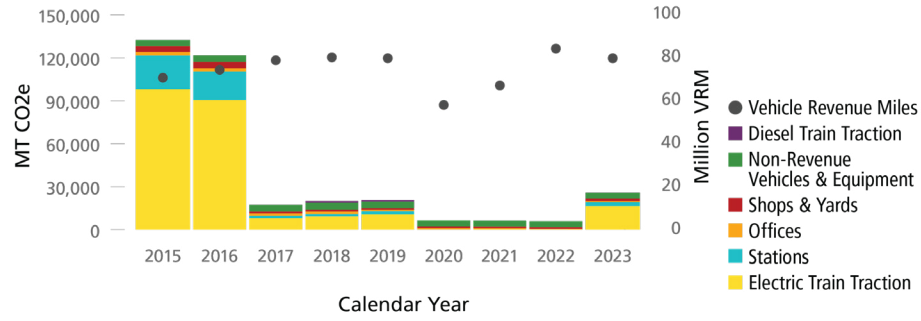
Since 2015, BART has opened 5 new stations across the system and increased the amount of scheduled service. These changes have caused total energy use to increase since 2015, although energy use per VRM has declined.

Greenhouse Gas Emissions

GHG Emissions per Vehicle Revenue Mile (VRM)



GHG Emissions by Asset Category

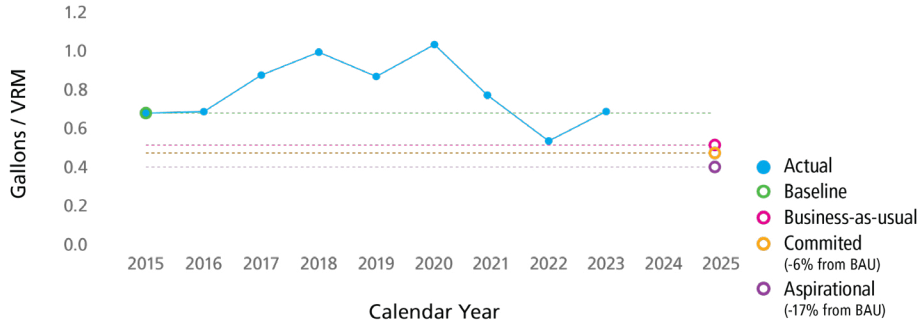


In 2023, BART was just short of meeting its 2025 committed and aspirational targets for metric tons of carbon dioxide-equivalent per vehicle revenue mile (VRM). 88% of BART's contracted electricity supply was GHG-free, which is a 12% decline from the previous year. Increased market demand for renewables has made it more difficult to fill our open positions. As a result, BART filled its remaining open positions with electricity from unspecified sources, which are not designated as GHG-free. This caused year-over-year emissions to increase for electric train traction, stations, offices, and shops & yards. Emissions for our non-revenue fleet & vehicles declined from 2022 because of reduced energy use in that category.

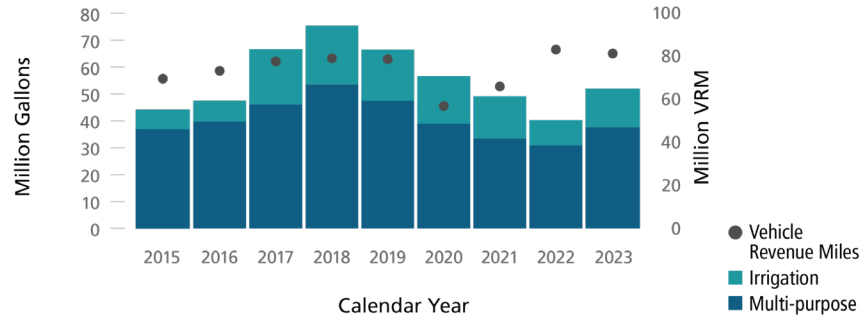
Since adopting the District's Wholesale Electricity Policy in 2017, BART has shifted its energy sourcing away from unspecified power sources in favor of specified GHG-free sources, which has significantly reduced BART's GHG emissions from the 2015 baseline. Additionally, the District has transitioned from conventional diesel to renewable diesel for use in eBART trains and the diesel-powered non-revenue fleet. BART is developing plans to increase electrification of its non-revenue fleet.

Potable Water Use

Water Use per Vehicle Revenue Mile (VRM)



Water Use by Type

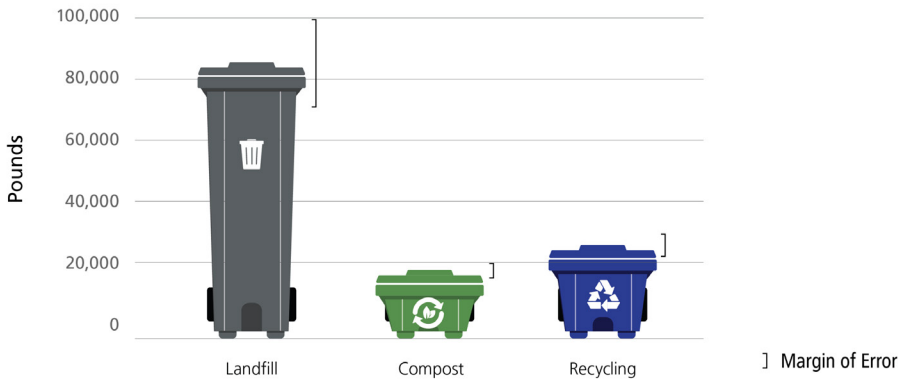


In 2023, BART's water use per vehicle revenue mile increased by 22% compared to 2022. Overall water use increased by approximately 18%, and vehicle revenue miles decreased by approximately 3%. The increase in water use was partly due to increased irrigation for some new and existing plantings at several of our stations and bioretention areas. Several leaks also occurred, so BART is exploring technology solutions to prevent, detect, and resolve them more effectively.

Compared to the baseline year, BART's water use initially increased from 2015 to 2018. Due to drought conditions in 2015 and 2016, BART maintained low water usage by reducing the frequency of train car washing and irrigation. As drought conditions improved since late 2016, train car washing returned to the prior frequency and previously deactivated water fixtures for irrigation were reactivated, causing water use to increase. Additionally, the Warm Springs Extension added sites that increased water consumption during that period, including the environmental mitigation project. To help address these trends, particularly in recognition of emerging drought conditions, new cross-departmental working groups were created in 2020 to optimize water use for irrigation and at BART's shops and yards. These groups will continue enhancing long and short-term analysis of trends and will be developing new standard operating procedures accordingly.

Municipal Solid Waste Generation and Diversion

Total Waste Generated at Offices



As part of BART's Waste Management Program, BART staff is taking a phased approach to refining waste metrics. BART estimated the waste generation and diversion rates for office buildings based on samples taken from BART's headquarters. The results were extrapolated to other office buildings based on headcount. BART will use the lessons learned from this exercise to expand waste calculations to include other parts of BART operations, such as stations, shops, and yards.

BART estimated that 126,710 pounds of waste were generated at offices in 2023, with a waste diversion rate of 38% by weight. At BART's headquarters, this corresponded to about 101 pounds of landfill, 29 pounds of compost, and 36 pounds of recycling waste per person throughout the year.

After expanding the compost program to offices in late 2022 and early 2023, BART staff plans to pilot and implement composting at our shops and yards and passenger stations in the coming years.

Action Table

* Status Updated for 2023

Ongoing
100%
76%-99%
26%-75%
1%-25%
0%

Each of the actions and subactions described in BART's Sustainability Action Plan were reviewed to determine their status as of December 2023. Actions in the plan were inspired by BART initiatives that were either proposed or underway, as well as best practices from other transit agencies. The District's internal peer review of these actions reflects the professional input of relevant groups. The table below summarizes the status of each of the 118 actions and subactions.

RESOURCE CONSERVATION: ENERGY & GHG EMISSIONS

ACTION	SUB-ACTION	STATUS	SUMMARY
RCE1 - Increase Capacity to Support Regional GHG Goals	Enable expanded service for additional riders; increasing ridership capacity		As of 12/2023, Alstom had delivered 669 of 775 new cars in the current Fleet of the Future order. * Notice-to-proceed issued to begin Communications Based Train Control (CBTC) project. Construction and manufacturing of components for the Hayward Test Track have begun. Progressed on installation of two traction power substations in San Francisco; anticipate advertising contract for installation of three traction power substations in the East Bay in late 2024.
RCE2 - Adopt a Strategic Energy Plan	2.1 - Develop plan to achieve low-carbon energy procurement targets		Energy plan developed and targets identified.
	2.2 - Develop Wholesale Electricity Portfolio Policy		Wholesale electricity policy adopted by Board.
	2.3 - Track and report energy indicators; set performance goals		Energy use by location and power type reported annually and used to develop performance goals. Exploring options to better analyze energy use over time.
RCE3 - Make Renewable Energy Purchases	Continue to invest in wholesale low-carbon, zero-carbon and renewable electricity purchases		As of 2023, BART receives 67% of its electricity from renewable energy sources and 88% from zero-carbon sources. *
RCE4 - Invest in On-site Energy Generation	4.1 - Move forward with on-site solar power generation		Solar energy systems in place at Antioch, Lafayette, Warm Springs, Richmond, Hayward, and Union City. Additional systems being considered for new stations.
	4.2 - Solar power generation vs. transit-oriented development (TOD) and housing policies		5 potential solar sites were identified for solar generation that do not have plans for any TOD development within the next 20 years.
	4.3 - Seek funding to support photovoltaic (PV) installations and storage		Funding pursued as needed for new projects.
RCE5 - Investigate Investment in Renewable Diesel	Explore feasibility of renewable fuels for eBART and non-revenue fleet.		BART has transitioned to renewable diesel for both eBART and non-revenue vehicles.
RCE6 - Conduct Station Energy Consumption Analysis	6.0 - Conduct Station Energy Consumption Analysis		A study was completed examining three representative stations. Based on the lessons learned, BART has no further plans to study three additional underground stations.

Ongoing | 26%-75%
100% | 1%-25%
* Status Updated for 2023 | 76%-99% | 0%

ACTION	SUB-ACTION	STATUS	SUMMARY
RCE7 - Invest in Lighting Retrofits	7.1 - Prioritize stations for energy-efficient lighting retrofits	26%-75%	10 of 48 stations, 14 of 15 parking garages, and 12 of 29 parking lots have been retrofitted. Next six stations for lighting retrofits identified. *
	7.2 - Develop robust lighting design guidance	26%-75% *	Guidelines developed and submitted for review for next round of BART Facilities Standards (BFS) updates. *
RCE8 - New Energy Efficient Train Cars	Continue to fund the new train car procurement; conduct testing to confirm energy efficiency gains	76%-99% *	As of 12/2023, Alstom had delivered 669 of 775 new cars in the current Fleet of the Future order. *
RCE9 - Reduce Electricity Losses from Traction Power	Explore and apply potential improvements to reduce traction power losses	Ongoing	BART will evaluate the option to install reversible rectifiers as substations are replaced.
RCE10 - Explore Opportunities for Energy Storage	10.1 - Funding options in coordination with new train car procurement	Ongoing	The Self-Generation Incentive Program (SGIP) program offered by the California Public Utilities Commission (CPUC) was explored as a potential opportunity, but it would not apply for funding batteries for regenerative braking system. BART will continue exploring other options for funding as opportunities arise.
	10.2 - Engineering-level study of system-wide energy storage	100%	Study completed in 2016 indicated that storing energy from regenerative braking is not currently feasible due to battery limitations. Potential opportunities will be revisited at a later date.
RCE11 - Green Non-Revenue Fleet	11.1 - Replace retired vehicles with hybrids	26%-75%	There are 3 electric motorcycles in the police fleet and 14 hybrids in the total fleet. BART is evaluating electric vehicles for future purchases. *
	11.2 - Right-size heavy equipment to save fuel	Ongoing	Department superintendents provide guidance on vehicle uses prior to replacement by maintenance. Multiuse vehicles are pursued when possible.
	11.3 - Implement operational strategies, e.g. anti-idle and fuel saving driving	Ongoing	New logistics trucks are designed to shut off after 5 minutes according to CA regulations. Maintenance & Engineering employees are required to take driver safety course. All employees required to take Space Cushion Driving webinar, which offers defensive driving strategies that help reduce fuel consumption and maintenance.
RCE12 - Employee Trip Reduction in Non-Revenue Vehicles	Reduce fuel and emissions for BART employee work-related travel	Ongoing *	BART staff is researching opportunities to provide employee shuttle from BART stations to select shops & yards. *
RCE13 - Support Energy Efficiency Operations in Offices	Assess the feasibility of reducing BART's corporate energy use via employee training	0%	Not started
RCE14 - Electric Vehicle (EV) Charging Policy and Implementation	14.1 - Pursue funding for installing EV charging stations	Ongoing	Received funding notification from Bay Area Air Quality Management District, California Energy Commission, and Peninsula Clean Energy. Applications submitted to Metropolitan Transportation Commission and Department of Transportation for additional funding. *
	14.2 - Pilot EV charging at Warm Springs Station	100%	The EV charging pilot at Warm Springs has been implemented.
	14.3 - Develop expansion of station EV charging	76%-99%	Drafted Request for Proposals for adding EV Charging to BART-managed parking facilities. *
	14.4 - Install EV charging at shops/yards to enable EVs in non-revenue fleet	26%-75%	EV charging stations available at eBART and Hayward Maintenance Complex for employees and non-revenue fleet. Planning is underway for further expansion.
	14.5 - Install EV charging for convenient employee use	26%-75%	EV charging stations available at eBART and Hayward Maintenance Complex for employees and non-revenue fleet. New dual-port charges added to the Hayward Maintenance Complex.

Ongoing
100%
76%-99%
26%-75%
1%-25%
0%
* Status Updated for 2023

RESOURCE CONSERVATION: WATER

ACTION	SUB-ACTION	STATUS	SUMMARY
RCW1 - Regularly Audit Water Use and Correct Issues	1.1 - Allocate resources to pilot water use data tracking		Water use is tracked systemwide by meter. Piloted data dashboard using cloud analytics tool. Cross-departmental team has begun compiling additional data about meters and site-specific water use throughout system. Irrigation at several locations has been optimized as a result of analysis.
	1.2 - Leak detection and fixes		15 Calsense controllers have been installed at various locations. Leak detection at shops & yards will be enhanced upon installation of new water mains and piping. Water billing data and manual inspection techniques are used at other locations. *
	1.3 - Electronic data from water suppliers		BART developed a proposal for enhancing data intake for water data.
RCW2 - Address Irrigation Usage and Infrastructure	2.1 - Prioritize and conduct irrigation upgrades		Developed dashboards and spreadsheets to assist with auditing water meters and consumption trends at key locations.
	2.2 - Remote Access Controllers pilot and lessons learned		Pilot completed at Warm Springs and lessons will be applied to future projects.
	2.3 - Update irrigation maintenance manual	*	This action item has been included in landscape architect's job responsibilities. Irrigation maintenance manual no longer relevant for this effort. *
RCW3 - Upgrade Water Fixtures	3.1 - Prioritize and install water-saving fixtures		Water fixtures are upgraded during station modernization efforts.
	3.2 - Audit existing fixtures		Audit completed to identify plumbing fixtures that are not low flow and do not meet current water efficiency requirements.
	3.3 - Pilot low flow fixtures and apply findings		Low-flow pilot only applicable to new facilities. For existing toilets, not feasible to retrofit due to low slope of sewage pipe.
RCW4 - Replace Water Systems in Shops and Yards	Identify leaks; consider upgrades to water systems		OHY water distribution is being overhauled by the Hayward Yard Fire Protection contract 54RR-260. This project was awarded in 2021 and reached NTP in February 2022 (currently in construction ~ 99% complete as of Dec 2023, with 25 feet of pipe replacement remaining that should be concluded in late summer 2024). It provides more efficient water distribution for separated domestic and fire mains, a greater number of valves for better control of the system and monitoring for high flow, and has re-established redundancy in the Fire Protection system at the main shop. The PVC pipe should last more than 50 years and the material offers several repair methods should damage occur. *

Ongoing
100%
76%-99%
26%-75%
1%-25%
0%
* Status Updated for 2023

ACTION	SUB-ACTION	STATUS	SUMMARY
RCW5 - Investigate Train Car Washing	Determine the most water-efficient cycle/schedule that still meets BART's asset management needs		Audit of train wash schedule planned for late 2024. *
RCW6 - Engage Operations Staff for Water Conservation	Educate and engage relevant staff on ideas for water conservation in the workplace		Cross-departmental team created to address water consumption at shops and yards and develop standard operating procedures to better manage activities.
RCW7 - Participate in Water District Conservation Programs	Explore available rebates, incentives, and technical assistance		12th St./Oakland City Center Station has received the Water Smart Business Certification. Research completed on available rebates in various water districts. *

Ongoing
100%
76%-99%
26%-75%
1%-25%
0%
* Status Updated for 2023

EMISSION AND POLLUTION CONTROL

ACTION	SUB-ACTION	STATUS	SUMMARY
EP1 - Support Solid Waste Reduction	1.1 - Review station recycling pilot; targets for landfill diversion and waste reduction		BART installed dumpster sensors on a sample of station dumpsters to improve estimated total waste and diversion rates at stations. *
	1.2 - Renegotiate waste hauling and recycling contracts		BART compiled all waste hauler contracts and service agreements, which were franchise agreements. Contract negotiations were not feasible.
	1.3 - Public education and marketing campaigns for recycling		Not started.
	1.4 - Hire workers to service and support station recycling		Current System Service workforce is sufficient to meet projected recycling management needs.
EP2 - Pilot Station Dumpster Enclosures	Implement pilot project for dumpster enclosures		Project completed to determine best practices for dumpster enclosure design. Rather than completing a pilot, accepted requirements were incorporated into BART Facilities Standards. New construction or future upgrades to dumpster enclosures will capture and use these best practices.
EP3 - Pilot Facility-base Sustainability Program at Shop(s)/Yard(s)	3.1 - Opportunities for pilot of Sustainability Plan at shops/ yards		Not started.
	3.2 - Evaluate pilot; develop Sustainability Program for shops/yards		Not started.
EP4 - Improve Recycling at All Shops and Yards	4.1 - Review Oakland shops' recycling, create plans for all other shops/yards		Visited Oakland shop in December 2021 to document current waste streams and collection process. Plan to start a recycling and composting pilot at a smaller shop with fewer departments.
	4.2 - Identify costs and resources needed for system-wide recycling plan		Not started
EP5 - Incorporate Composting in Employee Worksites	5.1 - Develop composting and recycling program for administration offices		BART has recycling and composting at offices (BHQ, MET Building, and Cash Handling Building). *
	5.2 - Composting in staff rooms at shops/yards systemwide		Visited Oakland shop in December 2021 to document current waste streams and collection process. Plan to start a recycling and composting pilot at a smaller shop with fewer departments.
	5.3 - Investigate potential to include composting at BART stations		Research completed and pilot plan drafted.

Ongoing | 26%-75%
100% | 1%-25%
* Status Updated for 2023 | 76%-99% | 0%

ACTION	SUB-ACTION	STATUS	SUMMARY
EP6 - Improve Office Recycling and Re-use	6.1 - Inter-BART "green team" to advance waste reduction strategies	26%-75%	Office of Chief Information Officer (OCIO) Digitization team implemented e-signatures and other resources to reduce processes that require paper. Initial outreach for "green team" creation and signup has begun.
	6.2 - Develop paperless policy; Board of Directors all-digital pilot; review union contracts	100%	BART Record Retention Manual, with exceptions, requires records created on or after January 1, 2021 to be stored digitally. Digital signatures have been in use reducing printing. Board preparation meetings are paperless. Board meetings provide hard copies for accessibility reasons. Union contracts were reviewed for paper and printing requirements.
	6.3 - Searchable database of materials available for salvage/ re-use	0%	Not Started
EP7 - Reduce BART's Hazardous Waste	7.1 - Specify non-hazardous materials in capital projects; seek alternatives	Ongoing	Construction projects are routinely being routed to System Safety for material management review. Emphasis on recycling and reuse has resulted in significant diversion of waste from disposal site to reuse and reclaim.
	7.2 - Reuse and launder oily rags	100%	BART has contract to launder and reuse rags at the BART vehicle shops. Nearly 2 tons of rags are diverted from waste annually due to the program.
EP8 - Minimize and clean storm water runoff	8.1 - Construct trash interceptors/storm drain diversion structures	26%-75%	Trash Full Capture Action Plan completed. Stormwater management practices have been incorporated into BFS. *
	8.2 - Increase crews to improve cleanliness and inspect storm drain inlets	26%-75%	Additional positions on the maintenance crew to be considered in the future.
	8.3 - Pilot the capture, storage, and reuse of rainwater	26%-75%	A potential pilot is currently unfunded. BART is actively exploring and applying for grants to fund this initiative.
	8.4 - Update BFS drainage sections to reflect best practices	100%	BFS 3.2.1 published in 2022. Civil Design Drainage Criteria was updated. Requirements for biofiltration in facilities and site planning added under Article 11.4 Biotreatment and Article 11.5 Storm Water Control Plan (SWCP) respectively.
EP9 - Clean and Reuse Water	9.1 - Explore and implement the reuse of sump pump water		Upon analysis, reuse of sump pump water is currently infeasible for BART's operations.
	9.2 - Explore and implement grey water systems at the shops and yards		Due to public health concerns and metals in water discharge, grey water systems are currently infeasible for BART's operations.
	9.3 - Explore and implement storm water capture	0%	Not started
EP10 - Invest in Tree Planting	10.1 - Direct resources to prioritize tree coverage	26%-75%	Several transit-oriented development, modernization, and expansion projects at and around stations include tree planting as part of design. Trees are also considered and prioritized during planning for new stations. However, funding and staffing for maintaining existing and newly established trees have been identified as obstacles.
	10.2 - Include tree requirements in the BART Facilities Standards (BFS) as possible	100%	Updates added to landscape and vegetation control section of BFS.

* Status Updated for 2023

Ongoing | 100% | 76%-99% | 26%-75% | 1%-25% | 0%

ACTION	SUB-ACTION	STATUS	SUMMARY
EP11 - Replace Gas Powered Tools with Electric	11.1 - Prioritize landscaping tool replacement		BART replaces tools on an ongoing basis. Electric tools are tested prior to implementation to ensure they meet BART's needs.
	11.2 - Develop policy of purchasing electric (battery) tools		BART replaces tools on an ongoing basis. Electric tools are tested prior to implementation to ensure they meet BART's needs.
	11.3 - Outfit high rail crew trucks with outlets and areas to charge batteries		All hi-rail crew trucks have generators and outlets.

Ongoing
100%
76%-99%
26%-75%
1%-25%
0%
* Status Updated for 2023

MATERIALS AND CONSTRUCTION OPERATIONS OPTIMIZATION

ACTION	SUB-ACTION	STATUS	SUMMARY
MC1 - Select Green, Sustainable Materials and Products	1.1 - Green Purchasing Policy		On hold due to staffing and resource constraints.
	1.2 - Department-specific procurement guidelines		On hold due to staffing and resource constraints.
MC2 - Update BFS for Construction Activities	2.1 - Develop tools for BART Facilities Standards (BFS) Sustainable Practices		Not every company produces an Environmental Product Declaration so BART is unable to make this a requirement. At this time, BART is including sustainability in construction specifications where practical.
	2.2 - Update BFS Construction Standard Specification		Not started.
	2.3 - Modify BFS design standards to ensure resilient infrastructure design		Not started.
MC3 - Improve BART Facilities Standards (BFS) Sustainability Guidance, Criteria and Standards	3.1 - Update guidelines and incorporate performance-based specifications		BART Facilities Standards Sustainability Guidelines have been revised.
MC5 - Sustainable Contractual Tools (Capital Projects)	Explore contracting tools to best leverage sustainability		Not started.
MC6 - Develop Sustainability Design Guidance	6.1 - Project guidance (sustainability targets, financial resource allocation)	*	BFS Section 01 81 13 provides mechanism to guide project development stages, including spreadsheets to track materials and costs, and other submittals that address energy use, water use, and waste management. *
	6.2 - Experience with green building and LEED certification in new contracts		BART includes LEED experience as a desired qualification in requests for proposals (RFPs) for On-Call Agreements.
	6.3 - Pilot project with INVEST or Envision		Provided information about third party sustainability certifications and cost premiums in internal "Sustainability in Project Delivery" training. VTA staff is pursuing Envision for BART Silicon Valley Phase II. BART staff is supporting their work and learning from the experience.

Ongoing | 26%-75%
100% | 1%-25%
* Status Updated for 2023 | 76%-99% | 0%

EXTREME WEATHER ADAPTATION AND RESILIENCE

ACTION	SUB-ACTION	STATUS	SUMMARY
EWA1 - Coordinate with Regional Agencies in Climate Adaptation Planning and Implementation	1.1 - Consider climate change impacts as a part of project design	100%	Design of BART projects are required per BART Facilities Standards to account for climate change impacts.
	1.2 - Seek funding or partner to adopt adaptation strategies	Ongoing	~$6.5 million awarded in grants for rail destressing and station access improvements that address extreme heat concerns. *
	1.3 - Modify design standards in BART Facility Standards (BFS) to ensure resilient infrastructure design	100%	Included requirements in BFS for climate change adaptation.
EWA2 - Conduct Hazard Mitigation Planning	2.1 - Incorporate 2016 Local Hazard Mitigation Plan (LHMP) considerations into capital improvement plans	100%	As part of LHMP update, LHMP actions are integrated into District's capital improvement need inventories and programs.
	2.2 - Update Local Hazard Mitigation Plan (LHMP) every 5 years	100%	District LHMP updated and adopted LHMP in 2022.
EWA3 - Expand the Water Intrusion program to respond to sea level rise and extreme weather events	3.1 - Upgrade systems that track water inundation	100%	Sump pump systems provide alert to Operations Control Center of water in the system. System is adequate. Upgrade not warranted at this time.
	3.2 - Expand Water Intrusion Program to identify vulnerable assets; develop risk mitigation program	26%-75%	Measure RR-sponsored projects mitigating water intrusion are in progress.
	3.3 - Partnerships with local watershed jurisdictions for runoff analysis	100%	Flood-prone areas were evaluated in the Local Hazard Mitigation Plan (LHMP) using FEMA Flood Insurance Rate Maps. Findings included in LHMP.
	3.4 - Partner with jurisdictions to protect around Transbay Tube portals	26%-75%	BART continued engagement with Port of San Francisco on Embarcadero and received notification of award from Caltrans for long-term adaptation of the Embarcadero structures. *
	3.5 - Waterproof venting structures and entrances for underground stations	1%-25%	Various water intrusion related work identified and in progress under Measure RR.
EWA4 - Train Control Resiliency	Implement the Train Control Modernization Program	76%-99% *	Notice-to-proceed has been issued to begin project. Construction and manufacturing of components for the Hayward Test Track have begun. *

Ongoing | 26%-75%
100% | 1%-25%
* Status Updated for 2023 | 76%-99% | 0%

SMART LAND USE AND LIVABLE NEIGHBORHOODS

ACTION	SUB-ACTION	STATUS	SUMMARY
SLU1 - Improve Station Character and Community Fit	1.1 - Implement the "Connect & Create Great Places" work plan	26%-75%	Overall, 14 capital projects identified: 5 complete, 5 in progress, 3 on hold, 1 not started.
	1.2 - Seek funding for place-making investments via grants, bonds, etc.	Ongoing	Transbay 2 Project: $41,011,377 for AHSC Round 7 for purchase of two new BART cars, which will increase the number of trains operating through the Transbay Tube during peak hours, increase train lengths, and maximize throughput capacity throughout the system. *
	1.3 - Partner to implement complementary improvements on city streets	26%-75%	BART secured $49M in Transit and Intercity Rail Capital Program grant fund. Overall, 5 capital projects identified: 2 complete, 3 in progress.
SLU2 - Continue to Lead the Region in Transit Oriented Development (TOD)	2.1 - Implement TOD Policy	Ongoing	2 TODs completed: Millbrae and Balboa Park. 1 TOD under construction: Fruitvale Phase IIB. 3 TODs in predevelopment: West Oakland, Lake Merritt Block 1, West Dublin. 3 TODs under negotiation: El Cerrito Plaza, North Berkeley, Lake Merritt Block 2 *
	2.2 - Coordinate with local partners on Specific Plans or Station Area Plans	Ongoing	BART Station Planners check in periodically if jurisdiction rezones and will update conformance findings accordingly.
	2.3 - Activate stations in coordination with system expansion	Ongoing	System Development Policy adopted by Board of Directors in September 2023. Any major new system development project must provide clear, measurable benefits to the system and its riders, as well as demonstrate the ability to address the region's goals to grow transit ridership, address the climate emergency, improve mobility, and ensure equitable outcomes. * In Sept 2023, the Oakland City Council approved the Planning Code amendments to implements actions outlined in the adopted Housing Element and also approved the Environmental Justice Element and Safety Element Update.

Ongoing | 26%-75%
100% | 1%-25%
* Status Updated for 2023 | 76%-99% | 0%

ACTION	SUB-ACTION	STATUS	SUMMARY
SLU3 - Station Access – Connect to Community	3.1 - Implement the Station Access Policy	Ongoing	Completed construction of Balboa Park Station's new plaza and passenger loading zone, Measure RR-funded Safe Routes to BART (SR2B) connections along 5th Street to Powell Street BART, and the 12th Street Station Bike Racks. BART is advancing implementation of Measure RR-funded pedestrian and bike improvements at North Berkeley including widening of the Ohlone Greenway on BART's property. Advanced construction of SR2B projects on city streets to provide safer, more efficient pedestrian and bike connections to Dublin/Pleasanton and Fremont stations. Other Measure RR-funded projects are in the design phase. *
	3.2 - Implement the BART Bike Plan and Bike Parking Capital Program	26%-75%	Deployed new BayWheels bikeshare stations at 24th Street Mission and Balboa Park Stations, installed Bikeep electronic bike racks at 12th Street and MacArthur Stations, installed bicycle stairway channels at the Coliseum Station, and kicked off the BART Bicycle Preferred Path of Travel Capital Plan. *
	3.3 - Incorporate Multimodal Access Design Guidelines into the BART Facilities Standards (BFS)	100%	The guidelines are listed as an appendix in the BART Facilities Standards.
	3.4 - Improve multi-modal transfers; fund access upgrades	Ongoing	BART continued to participate in regional transit coordination work to support the Transit Transformation Action Plan, including Fare Coordination and Integration, Regional Mapping and Wayfinding, Accessibility and Paratransit improvements. * Tested bus bay numbering at Bay Fair and Fremont Stations and use of new numbering to message bus change locations to passengers and bus operators. Overhauled wayfinding kiosks district-wide. Completed TOD at Millbrae and Balboa Park Stations with updated passenger loading and unloading and pedestrian access. Coordinated with City of Hayward to provide improved pedestrian curbs and crossings at entrance to Hayward Station. Work completed on North Berkeley Bicycle and Pedestrian access project includes: raised crosswalk at the station entrance, widened pedestrian connection between Sacramento Street and the station, added a ramp between Sacramento street and the station elevator, improved curb zone allocations, improved bike access from Acton St to the station entrance, added a two-way bikeway to the station access road and Delaware St, and updated curb zone and bus bay numbering signage featuring the interim station access signage standards. Hosted open house at 19th St. Station and town hall for blind/low vision customers. Initiated accessibility improvements at Bay Fair and Fremont stations to bring the stations into compliance with the ADA. Mapped tactile pathways district-wide and posted online."

Ongoing | 26%-75%
100% | 1%-25%
* Status Updated for 2023 | 76%-99% | 0%

ACTION	SUB-ACTION	STATUS	SUMMARY
SLU4 - Participate in Local/ Station and Regional Partnerships	4.1 - Identify opportunities for effective Plan Bay Area implementation	Ongoing	BART is a participant on the Core Project Management Team for Transit 2050+, comprehensive plan for the regional transit network as part of Plan Bay Area 2050+.
	4.2 - Serve on Technical Advisory Committees, lend expertise	Ongoing	BART staff served on several technical advisory committes and planning advisory committees for regional and citywide efforts. This included master plans related to biking, pedestrians, neighborhood/community improvement, VMT mitigation, and subregional planning.
	4.3 - Participate in state legislation and rule making to support transit-oriented development (TOD)	Ongoing	The BART Board supported legislation including AB 1657 (Wicks) and SB 923 (Wiener). *
SLU5 - Support Affordable Fares	Continue to explore strategies to support affordable fares	Ongoing	BART is a participant of Clipper START, a fare-discount pilot program for riders with lower incomes. The pilot program was extended to 2025, and the discount has increased to 50% starting in 2024. * BART and Metropolitan Transportation Commission (MTC) co-lead regional fare coordination and integration efforts. Efforts include Clipper BayPass, a pilot program for an unlimited regional transit pass. Program has partnered with four local universities and twelve affordable housing sites.

Ongoing | 26%-75%
100% | 1%-25%
* Status Updated for 2023 | 76%-99% | 0%

RIDER EXPERIENCE

ACTION	SUB-ACTION	STATUS	SUMMARY
RE1 - Create Clean Station Environments	1.1 - Invest in the Station Brightening Program and increase staff	Ongoing	Program currently on hold pending future hiring and funding.
	1.2 - Additional grounds maintenance crews to improve parking lot cleanliness	26%-75%	Additional positions on the maintenance crew to be considered in the future.
RE2 - Create Safer Station Environments	2.1 - Support community-based policing	Ongoing	* Continued Zone Commander leadership for engaging participation by Sergeants and frontline personnel. Examples of projects that were completed include Progressive Policing and Community Engagement Bureau (PPCEB) support for enhanced presence at Civic Center, addressing quality of life issues at the Mission station plazas, homeless encampment abatement on BART property, high visibility train patrols to address quality of life concerns from riders and employees, and support for strategic train inspections during nights and weekends. The PPCEB was fully staffed for civilian positions, although the police officers who had been assigned to the Bureau were transferred to the Operations Bureau to address staffing issues. Re-deployed 7 vehicle beats to train patrol to maximize officer presence on trains.
	2.2 - Analysis of high crime stations; leverage data to optimize police presence and support equitable policing practices	Ongoing	* BART Police Dept has been able to increase presence through focusing efforts of employees towards high visibility patrols of trains and stations. The Department used data-driven practices to identify where to focus efforts. The Department is also providing strategic high visibility patrols at locations that are experiencing high levels of criminal activity or quality of life issues, including during nights and weekends. The high visibility patrols included PPCEB staff to ensure that the outcomes were not entirely focused on punitive measures. Community Service Officers were re-deployed from parking lots to provide visible presence in stations and on trains.
	2.3 - Update audibility of Public Address (PA) announcement system	* 26%-75%	* The Stations PA Improvement project involves improvements at Powell St, Lafayette, Ashby and Castro Valley Stations. Construction estimated for Lafayette and Powell in 2025. Design scheduled to be completed for Ashby and Castro Valley in 2026.
	2.4 - Improve real-time display messages to communicate safety messages	100%	30 real-time displays installed at downtown Oakland and SF stations.
RE3 - Support Art in Transit	Develop an art program master plan	100%	In 2020, BART completed an art collection analysis that details maintenance and cleaning. The Arts Master Plan, which includes guidelines, procedures, and metrics is now complete. Funding is currently on a project-by-project basis.

Ongoing | 26%-75%
100% | 1%-25%
* Status Updated for 2023 | 76%-99% | 0%

ACTION	SUB-ACTION	STATUS	SUMMARY
RE4 - Invest in Employee Health and Wellness	Implement programs to enhance worker safety and wellness	Ongoing	COVID-19 vaccination requirements rescinded to align with conclusion of State of California's state of emergency and the federal public health emergency. Employees still must follow District's COVID-19 protocols for reporting symptom and test results, and conducting contact tracing. * Claremont Employee Assistance Program offers Health & Wellness resources for employees, including online classes and workshops.
RE5 - Design Stations for Patron Comfort	Develop guidelines and other procedural tools to promote quality of life at stations	100%	Rider comfort addressed in various guidelines and requirements including the Station Experience Design Guideline, Powell Station Improvement Guideline, and the BART Facility Standards (BFS).
RE6 - Attenuate Noise	6.1 - Determine feasibility of piloting a physical barrier to mitigate local noise impacts	100%	Upon analysis, a physical barrier at West Oakland was deemed infeasible.
	6.2 - Continue regular wheel and rail maintenance to mitigate noise	100%	BART converted 95 percent of our fleet wheels and 40 percent of the rails to a new profile that together help to reduce the screeching noise frequently heard on BART. In the worst areas of the system, interior train car noise measurements decreased from 95dB to 75dB.
	6.3 - Specify materials in BART Facilities Standards (BFS) that help noise attenuation	100%	BFS architecture criteria passenger station section includes noise attenuation requirements.
RE7 - Support an Enhanced Wayfinding Program	Update Wayfinding Program; expand the use of electronic signs with real-time information	26%-75%	Wayfinding Phase 4 is under construction for wayfinding * improvements at MacArthur and Ashby stations including 4 RTDs for each of those stations. Funding has been made available for wayfinding improvements at Rockridge, North Berkeley, and Fruitvale stations. Wayfinding improvements for 38 stations completed to date
RE8 - Build Awareness: Transit's Relationship to Public Health	8.1 - Explore opportunities for healthy behaviors, e.g. public art	Ongoing	For Earth Day 2023, BART released an interactive quiz on the BART website about the District's sustainability efforts. BART also published a joint statement with local transit agencies for Earth Day extolling the environmental benefits of transit. BART is also exploring opportunities to display
	8.2 - Reflect public health benefits in emerging guidance for station design	100%	BART Facilities Standards architecture criteria for passenger stations includes requirements for bike stair channel to promote bike usage. BART hosts the Blue Sky Festival to promote clean air.

Let’s go.