

# Quarterly Service Performance Review 3rd Quarter, FY22

#### January- March, 2022

Engineering & Operations Committee May 26, 2022

SUMMARY CHART 3rd QUARTER FY 2022										
PERFORMANCE INDICATORS	CURRENT			PRIOR QTR		YEAR TO DATE				
	QUARTER			ACTUALS LAST	THIS QTR					
	ACTUAL	STANDARD	STATUS	QUARTER	LAST YEAR	ACTUAL	STANDARD	STATUS		
Average Ridership - Weekday	105,896	173,726	NOT MET	108,197	47,698	102,206	124,664	NOT MET		
Service Delivery	100,000	175,720		100,137	47,000	102,200	124,004	NOTMET		
Peak Customers on Time	89.10%	94.00%	NOT MET	89.12%	94.57%	90.91%	94.00%	NOT MET		
Daily Customers on Time	88.32%	94.00%	NOT MET	89.43%	94.59%	90.56%	94.00%	NOT MET		
Daily Train on Time	79.80%	91.00%	NOT MET	78.57%	91.69%	82.85%	91.0%	NOT MET		
On-Time Connections (e-Line to BART)	97.78%	98.50%	NOT MET	98.91%	99.27%	98.09%	98.50%	NOT MET		
AM Peak Period Transbay Car Throughput	85.12%	97.50%	NOT MET	87.50%	99.07%	89.44%	97.50%	NOT MET		
PM Peak Period Transbay Car Throughput	81.01%	97.50%	NOT MET	83.69%	98.90%	85.69%	97.50%	NOT MET		
quipment	01.0170	57.50%	NOTWET	00.00 /0	30.3070	00.00 %	57.50%	NOTWE		
Car Availability at 4 AM (0400)	628	608	MET	596	566	611	606	MET		
Vehicle Mean Time Between Service Delays	6,295	4,650	MET	4,886	4,204	5,706	4,650	MET		
Train Mean Distance Between Failures (miles) (e-Line)	18,784	20,000	NOT MET	15,819	21,118	22,766	20,000	MET		
Elevators in Service (Station)	99.03%	98.00%	MET	99.33%	98.83%	98.77%	98.00%	MET		
Elevators in Service (Garage)	99.93%	97.00%	MET	99.57%	99.96%	99.78%	97.00%	MET		
Escalators in Service (Street)	96.95%	0.93	MET	96.27%	93.73%	96.57%	97.00%	MET		
Escalators in Service (Platform)	98.36%	96.00%	MET	98.30%	96.12%	98.28%	96.00%	MET		
Automatic Fare Collection (Gates)	99.16%	99.00%	MET	99.03%	99.54%	99.18%	99.00%	MET		
Automatic Fare Collection (Vendors)	98.22%	95.00%	MET	98.13%	98.65%	98.29%	95.00%	MET		
Wayside Train Control System	0.94	1.00	MET	1.16	0.65	0.99	1.00	MET		
Computer Control System	0.12	0.08	NOT MET	0.103	0.117	0.153	0.08	NOT MET		
Traction Power	0.96	0.20	NOT MET	0.56	0.50	0.133	0.00	NOT MET		
Track	0.00	0.30	MET	0.00	0.00	0.01	0.30	MET		
Transportation	1.50	0.50	NOT MET	1.11	0.36	1.17	0.50	NOT MET		
ustomer Complaints and Rating	1.50	0.00		1.11	0.00	1.17	0.50			
Complaints per 100,000 Passenger Trips	21.36	5.07	NOT MET	19.89	24.29	20.79	5.07	NOT MET		
Environment Outside Stations	70.2%	66.0%	MET	69.7%	71.8%	69.7%	66.0%	MET		
Environment Inside Stations	67.9%	64.0%	MET	69.3%	71.8%	69.7%	64.0%	MET		
Station Vandalism	74.0%	73.0%	MET	77.5%	74.4%	77.0%	73.0%	MET		
Train Interior Cleanliness	67.5%	70.0%	NOT MET	69.3%	67.7%	70.6%	70.0%	MET		
Train Temperature	85.6%	82.0%	MET	87.4%	86.3%	86.2%	82.0%	MET		
Customer Service	75.0%	75.0%	MET	77.8%	78.8%	78.3%	75.0%	MET		
Homelessness	25.5%	N/A	N/A	28.7%	30.1%	29.5%	N/A	N/A		
Fare Evasion	17.4%	N/A	N/A	15.9%	20.0%	15.8%	N/A	N/A		
afety	17.470	19/5		10.070	20.070	10.070		19/73		
Station Incidents/Million Patrons	1.41	2.00	МЕТ	2.52	2.22	1.80	2.00	MET		
Vehicle Incidents/Million Patrons	0.25	0.60	MET	0.36	1.39	0.34	0.60	MET		
Lost Time Injuries/Illnesses/Per OSHA	9.17	6.50	NOT MET	6.15	5.42	6.98	6.50	NOT MET		
OSHA-Recordable Injuries/Illnesses/Per OSHA	16.98	12.00	NOT MET	10.31	8.54	12.36	12.00	NOT MET		
Unscheduled Door Openings/Million Car Miles	0.55	0.20	NOT MET	0.55	0.16	0.84	0.20	NOT MET		
Rule Violations Summary/Million Car Miles	0.55	0.20	MET	0.15	0.16	0.84	0.20	MET		
olice	0.15	0.20		0.15	0.24	0.24	0.20			
olice BART Police Presence	8.5%	12.0%	NOT MET	10.5%	13.4%	9.8%	12.0%	NOT MET		
BAR I Police Presence Quality of Life per million riders	198.19	N/A	N/A	241.92	434.98	9.8% 220.84	12.0% N/A	NOT MET N/A		
	7.45	2.00	N/A NOT MET	7.80	434.98	7.53	N/A 2.00	N/A NOT MET		
Crimes Against Persons per million riders Auto Burglaries per 1,000 parking spaces	2.04	6.00	MET	2.39	14.60	2.07	6.00	MET		
		2.25	MET		0.28	-		MET		
Auto Thefts per 1,000 parking spaces Police Response Time per Emergency Incident (Minutes)	0.85	5.00	MET	1.14 4.38	3.37	0.98 3.76	2.25 5.00	MET		
			_		21	27				
Bike Thefts (Quarterly Total and YTD Quarterly Average)	24	100.00	MET	26	21	27	100.00	MET		

#### **Quadrant Chart**



#### **QUADRANT CHART FOR 3rd QUARTER FY22**

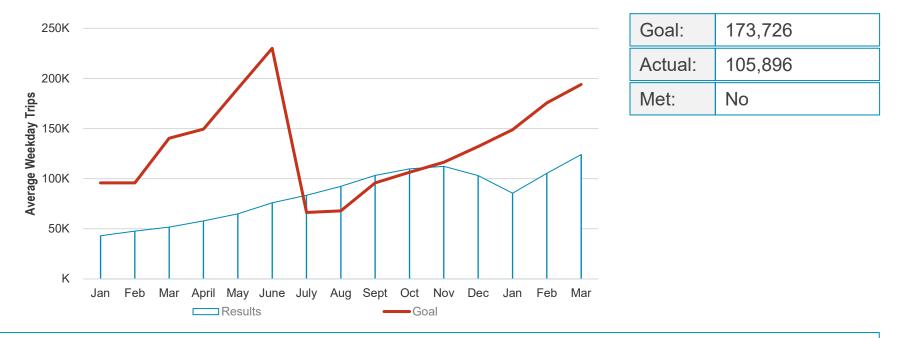
BETTER					WORSE					
	LAST QTR	CURRENT	CHANGE	GOAL		LAST QTR	CURRENT	CHANGE	GOAL	
Mean Time Between Service Delays	4886	6295	1409	4650	Station Vandalism	77.5%	74.0%	3.5%	73%	
Car Availability at 4 AM (0400)	596	628	32	608	Customer Service	77.8%	75.0%	2.8%	75%	
Track	0.01	0.00	0.01	0.30	Train Temperature	87.4%	85.6%	1.8%	82%	
Escalators Street	96.3%	97.0%	0.7%	93%	Environment Inside Stations	69.3%	67.9%	1.3%	64%	
Environment Outside Stations	69.7%	70.2%	0.5%	66%	Elevators Station	99.3%	99.0%	0.3%	98%	
Elevators Garage	99.6%	99.9%	0.4%	97%				-		
AFC Gates	99.0%	99.2%	0.1%	99%						
AFC Vendors	98.1%	98.2%	0.1%	95%						
Escalators Platform	98.3%	98.4%	0.1%	96%						
Wayside Train Control		0.94	0.22	1.00						
			1					1		
	LAST QTR		CHANGE	GOAL		LAST QTR		CHANGE	GOAL	
Trains on Time - Daily	<b>LAST QTR</b> 78.6%	<b>CURRENT</b> 79.8%	CHANGE 1.2%	<b>GOAL</b> 91%	Cust.Complaints/100KTrips	<b>LAST QTR</b> 19.89	CURRENT 21.36	CHANGE 1.47	<b>GOAI</b> 5.07	
Trains on Time - Daily					Cust.Complaints/100KTrips Transportation					
Trains on Time - Daily						19.89	21.36	1.47	5.07	
Trains on Time - Daily					Transportation	19.89 1.11	21.36 1.50	1.47 0.39	5.07 0.50 0.20	
Trains on Time - Daily					Transportation Traction Power	19.89 1.11 0.56	21.36 1.50 0.96	1.47 0.39 0.40	5.07 0.50 0.20 0.08	
Trains on Time - Daily					Transportation Traction Power Computer Control System	19.89 1.11 0.56 0.10	21.36 1.50 0.96 0.12	1.47 0.39 0.40 0.01	5.07 0.50	

MET

NOT MET

# **Customer Ridership - Weekday Trips**

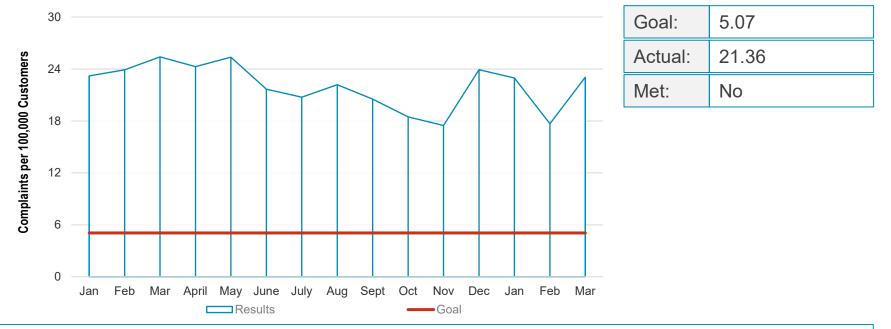




- 2.13% performance decrease from previous quarter, 114.8% improvement from same quarter last year
- Total ridership decreased by 3.4% from prior quarter and increased by 126.1% from same quarter last year
- Average peak ridership is up by 131.1% from same quarter last year
- Saturday and Sunday ridership is up by 139.0% and 126.5% from same quarter last year

#### **Customer Complaints**



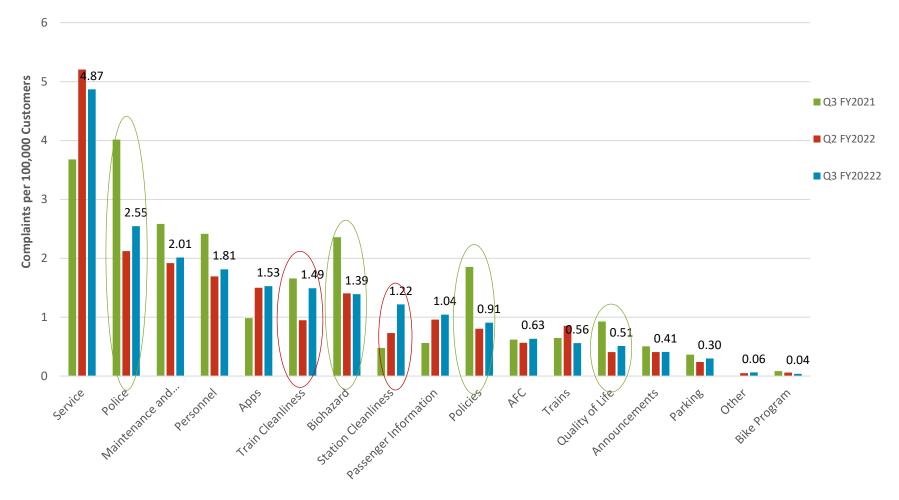


- 7.4% complaint increase from previous quarter, 12.1% improvement from same quarter last year
- Station Cleanliness complaints and Train Cleanliness cases increased by normalized 66% and 57% respectively from last quarter
- Station Cleanliness complaints increased by 155% compared to last year
- Passenger Information complaints increased 86% compared to last year. These complaints include lack of train cancellation information, actual train departures not matching information on apps, platform signs, and station entrance displays

#### **Customer Complaints**

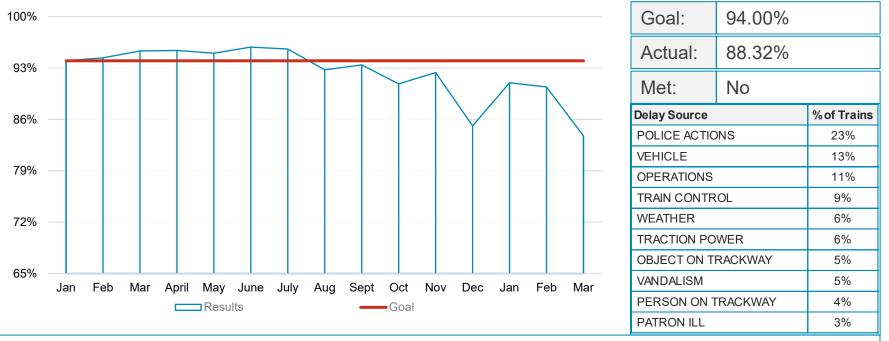
**Complaints Detail by Category** 





#### **On-Time Service - Customer**





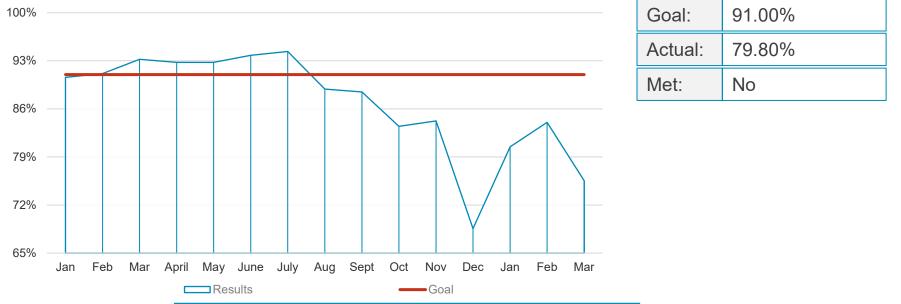
• 1.23% performance decrease from previous quarter, 6.62% decrease from same quarter last year

- Increased schedule, effective August 2021, reduced headways and recovery time for delayed trains due to
  - > BPD delays due to safety (weapons, welfare) related holds cover 23.5% trains of delay incidents
  - Vehicle Propulsion delays, FOTF cover 27% trains by top ten vehicle incidents
  - > COVID-related staffing issues, cover 20% train of operations incidents
  - > Wayside equipment cover 18% trains of delay incidents and 56% trains by top ten incident

#### **On-Time Service - Train**



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#### 71 PERSON ON TRACKWAY EVENTS DELAYED 4% OF TRAINS

	Date	Location	Description	Time	Cause	Trains
1	03/07/22	R-Line	R-line Cable (34.5kV)	5:20	Equip	169
2	03/02/22	S. Hayward	Substation Fire	5:00	Equip	77
3	01/10/22	Civic Center	Propulsion	17:07	Vehicle	74
4	02/17/22	Balboa Park	MUX	9:40	Equip	73
5	03/15/22	Lake Merritt	Propulsion	7:00	Vehicle	73
6	01/28/22	Daly City	Door	15:10	Vehicle	67
7	02/28/22	C-Line	Wayside Maintenance (No ventilation in tunnel)	4:45	Equip	65
8	03/08/22	R-Line	R-line Cable (34.5kV)	5:00	Equip	65
9	01/03/22	Systemwide	Weather (Reduced Speed)	14:09	Weather	65
10	02/02/22	Balboa Park	Train Struck Object On Trackway	11:19	Environment	63

# **Car Equipment – Reliability**

#### **Meantime Between Service Delays**





28.83% performance improvement from previous quarter, 49.74% improvement from same quarter last year

- Overall Fleet MTBSD 6,295 hours
  - Legacy Fleet MTBSD 6896
  - FOTF Fleet MTBSD 5113
  - > Top 3 Q3 FOTF Delay Categories: ATO, Brakes , Doors

### **Car Equipment – 4:00AM Availability**



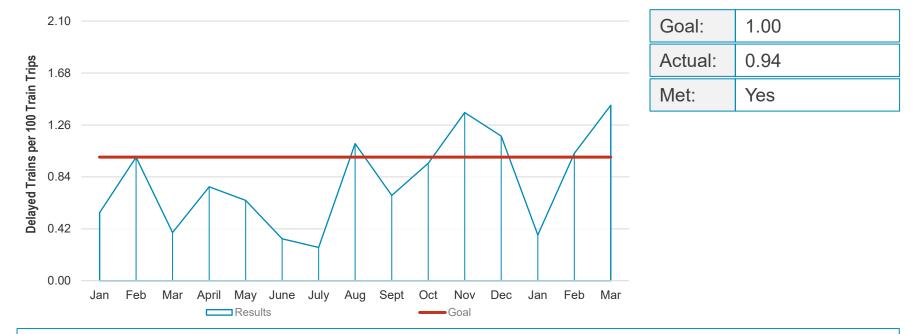


- 5.28% performance improvement from previous quarter, 10.9% improvement from same quarter last year
- Car Equipment availability for the Quarter reflects February 2022 service change
- FOTF car deliveries resumed on February the 10<sup>th</sup>, 2022.

# **Wayside Train Control System**

#### **Delayed Trains per 100 Train Trips**



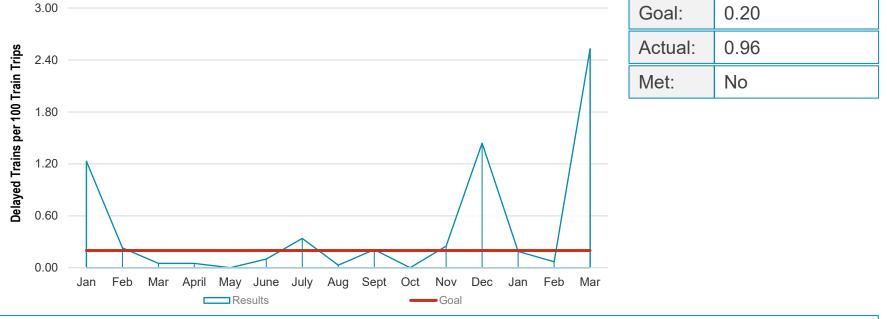


• 18.96% performance improvement from previous quarter, 45.36% decrease from same quarter last year

# **Traction Power**

#### **Delayed Trains per 100 Train Trips**





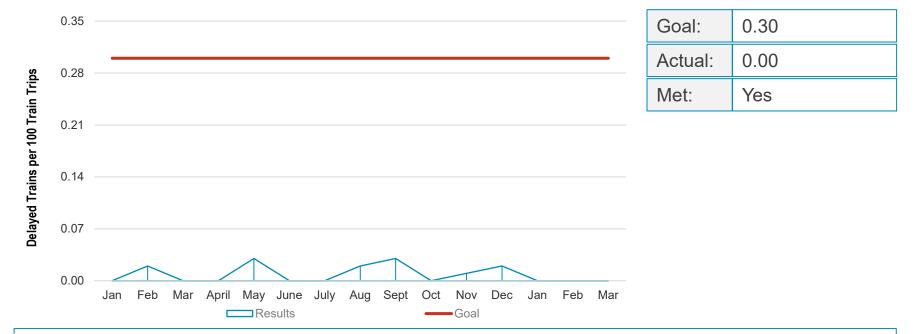
70.41% performance decrease from previous quarter, 90.72% decrease from same quarter last year

- Major delays this quarter:
  - Substations at both South Hayward (ASL) and El Cerrito Plaza (ECP) caught fire. Forensic Investigations are on going with final report expected next quarter
  - After left R Line cable experienced a break in Dec '21, R line Service had been relying on the remaining redundant right cable which had a fault in March. An RR Project was in place to replace both the left and right cables on the R Line and the contractor mobilized within days of the fault. BART forces were also mobilized to install a temporary cable to supplement the contractor install as a schedule mitigation measure to return service to normal sooner

#### Track

#### **Delayed Trains per 100 Train Trips**



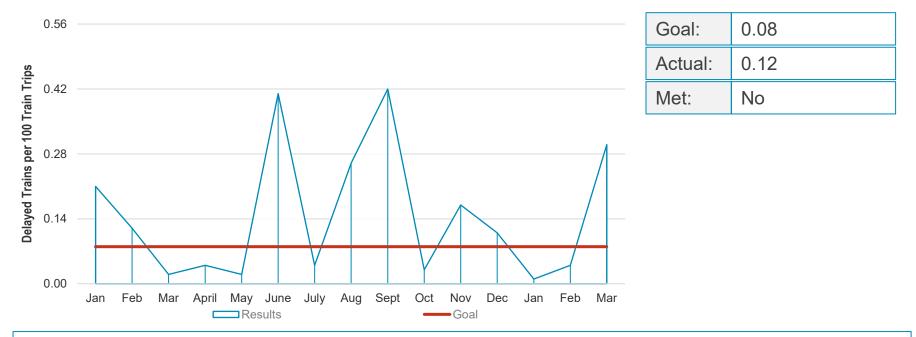


- 100% performance improvement from previous quarter, 100% improvement from same quarter last year
- On Target to achieve 10-mile goal on Rail Relay Replacement
- On Target to achieve replacing 10,000 Direct Fixation Pads

# **Computer Control System**

#### **Delayed Trains per 100 Train Trips**



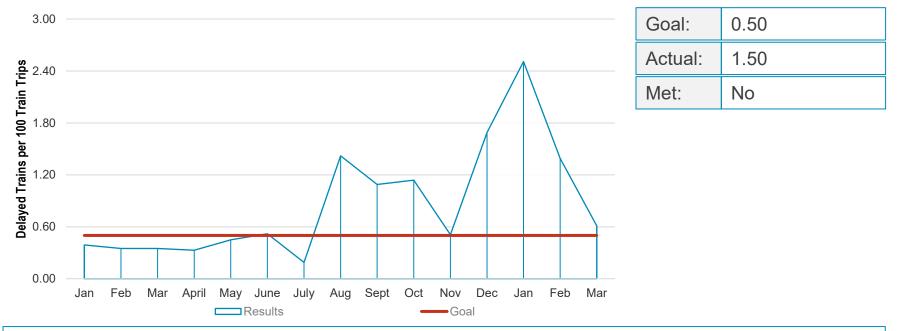


- 12.83% performance decrease from previous quarter, 0.06% improvement from same quarter last year
- Major delays this quarter:
  - A single incident which had to do with the failure and replacement of a media converter at San Bruno contributed to the majority of the overall Computer Control System delays this quarter. Other issues including needing to reboot equipment

# Transportation

#### **Delayed Trains per 100 Train Trips**



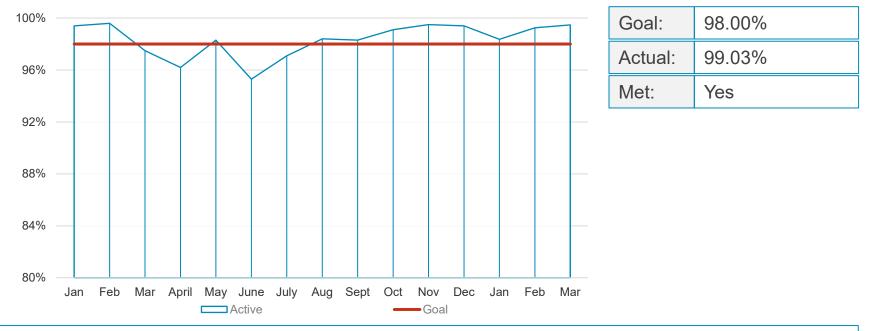


- 35.02% performance decrease from previous quarter.
- Major staff shortages due to COVID related absences in the months of January and February affected 20% transportation delayed trains
- Addressing the staffing issue:
  - > One Train Operator Certification class of 12 students started March 14th and a second class of 12 students started May 9th
  - Promoted 7 operators from part-time to full-time in February 2022, which is part of the total of 24 promotions since December 2021
  - > Continuing to work with Leave Management to address long-term absences

#### **Engineering & Operations Committee**

#### **Elevator Availability - Stations**





- 0.3% performance decrease from previous quarter, 0.2% improvement from same quarter last year
- Major Outages:
  - > Colma Station unplanned outage for motor repair, 149 hours out of service
  - > Coliseum Station unplanned outage for door and door hangar repairs (Vandalism), 114 hours out of service
  - > Union City Station unplanned outage for door and door hangar repairs (Vandalism), 71 hours out of service



#### **Elevator Availability - Garage**

- 0.36% performance improvement from previous quarter, 0.03% decrease from same quarter last year
- Major Outages:
  - > No major outages this quarter

BART

## **Escalator Availability - Street**





- 0.71% performance improvement from previous quarter, 3.43% improvement from same quarter last year
- Major Outages:
  - > Colma Station unplanned inverter/controller replacement, 652 hours out of service
  - > Embarcadero Station unplanned step chain replacement, 343 hours out of service
  - > Embarcadero Station planned step chain replacement, 238 hours out of service

#### **Escalator Availability - Platform**





- 0.06% performance improvement from previous quarter, 2.33% improvement from same quarter last year
- Major Outages:
  - > Civic Center Station unplanned step chain replacement, 423 hours out of service
  - > Fruitvale Station unplanned RH handrail replacement (Vandalism), 390 hours out of service
  - > Balboa Park Station unplanned step chain replacement, 374 hours out of service

#### **AFC Gate Availability**





• 0.13% performance improvement from previous quarter, 0.38% decrease from same quarter last year

- Completed El Cerrito Plaza Elevator Gate Preparation and Installations for District Fare Evasion prevention
- Increased Preventive Maintenance to pre-pandemic PM levels resulting in equipment daily availability

#### **AFC Vendor Availability**





- 0.09% performance improvement from previous quarter, 0.43% decrease from same quarter last year
- Initiated Single Board Computer project completed A10, A20, A30, A40, A50, A60, A70, S20, S40, S50, & W40
- Increased Preventive Maintenance to pre-pandemic PM levels resulting in equipment daily availability

## **Environment – Outside Stations**

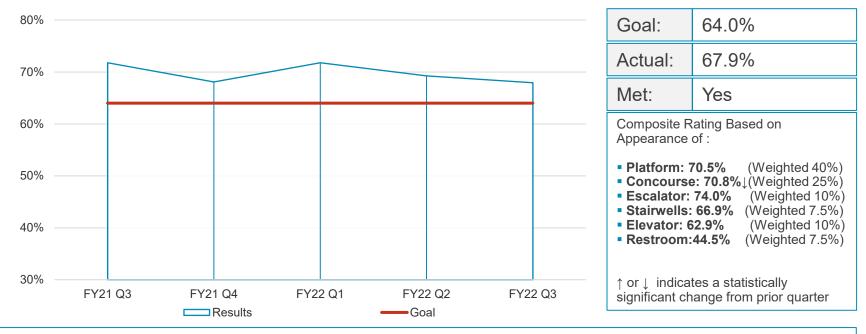




- 0.67% performance improvement from previous quarter, 2.23% decrease from same quarter last year
- Department has made recent progress in PM program due to mild weather
- Weed abatement is top priority for upcoming quarter

#### **Environment – Inside Stations**





- 1.9% performance decrease from previous quarter, 5.38% decrease from same quarter last year
- Staffing shortages continue due to promotions to train operator, station agent and transfer to Utility Worker. Net loss
  of 7 SSW's
- 21 new PT SSW hires to be added between this month and next

#### **Station Vandalism**





- 4.55% performance decrease from previous quarter, 0.52% decrease from same quarter last year
- Increase of graffiti incidents this quarter, possibly due to increase in ridership and spring break

# **Train Interior Cleanliness**

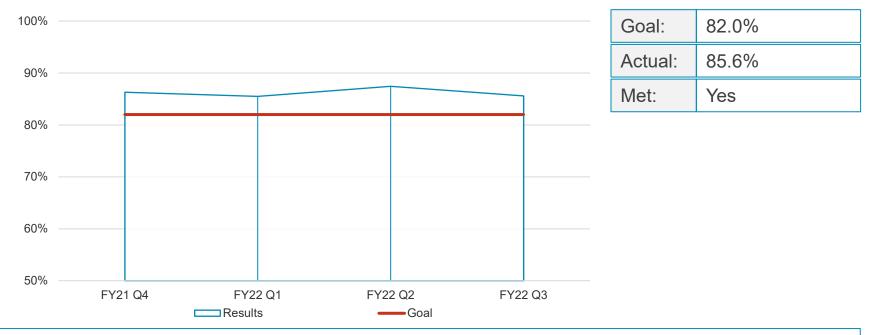




- 2.59% performance decrease from previous quarter, 0.24% decrease from same quarter last year
- Utility Worker hiring effort still ongoing.
  - 21 Utility Workers hired during quarter
  - 12 Net gain of Utility Worker positions this quarter
  - 46 Utility Workers positions remain vacant.

#### **Train Temperature**

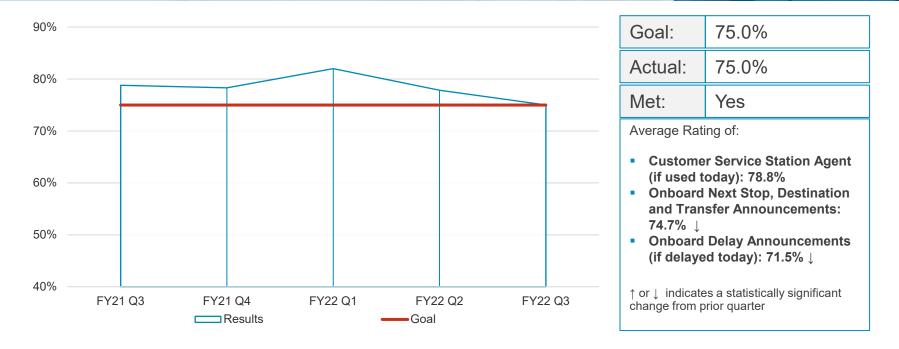




2.08% performance decrease from previous quarter, 0.83% decrease from same quarter last year

#### **Customer Service**

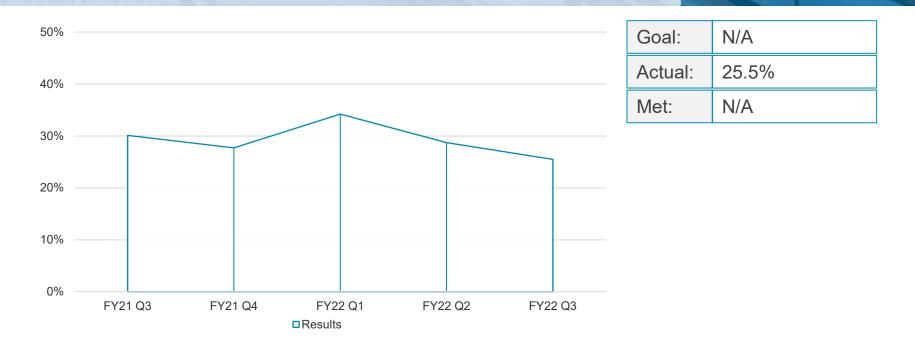




- 3.63% performance decrease from previous quarter, 4.79% decrease from same quarter last year
- Transportation hiring and training is in process to allow a full compliment of Supervisors in the field with oversight
- Customer Service complaints are handled efficiently to contact customers within days of the complaint and address any performance issues in the field

#### **Homelessness - Passenger Survey**

"How well is BART addressing homelessness?"

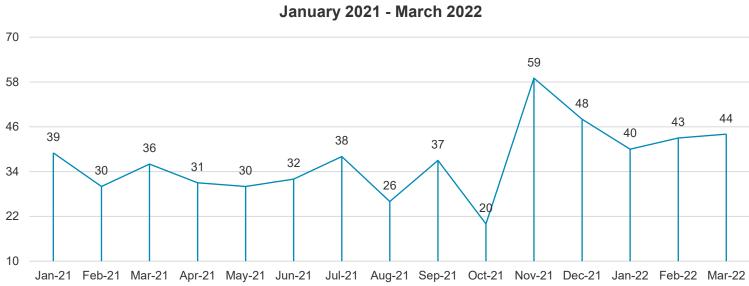


• 11.28% performance decrease from previous quarter, 15.39% decrease from same quarter last year

Colder/Wetter months drive more unsheltered individuals into the stations/trains. We anticipate an increase in
passenger satisfaction as we enter Spring/Summer months along with added resources in and around the District

# **Transient Counts in San Francisco Stations**



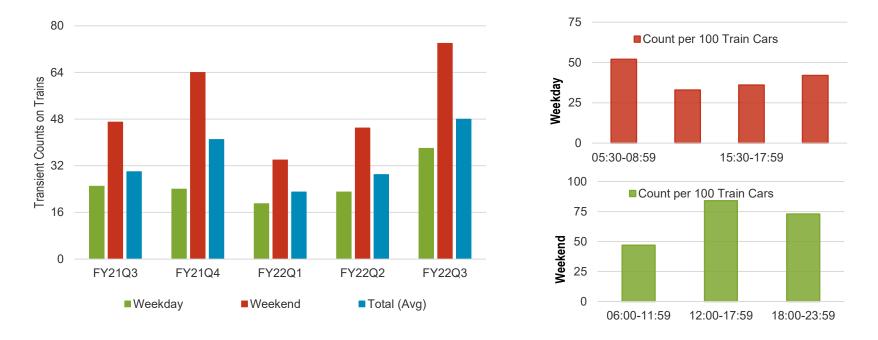


**Downtown San Francisco Station Counts** 

- Flat increase in count from previous quarter, 20.95% increase from same quarter last year
- San Francisco remains the epicenter of unsheltered homelessness in the Bay Area, currently work is being done to increase the District's Homeless response with new SF based immediate outreach teams getting informally connected to our Progressive Policing Bureau, which will help drive numbers down and get individuals the assistance they need

#### **Transient Counts on Trains**

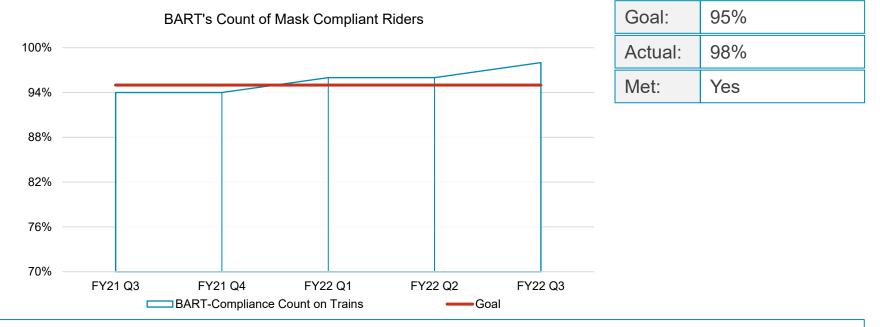




- 65.5% performance decrease from previous quarter, 60% decrease from same quarter last year
- BART introduced co-responder model and is collaborating with non-profit partner to reduce the number of transient

# Face Covering – BART Count on Trains



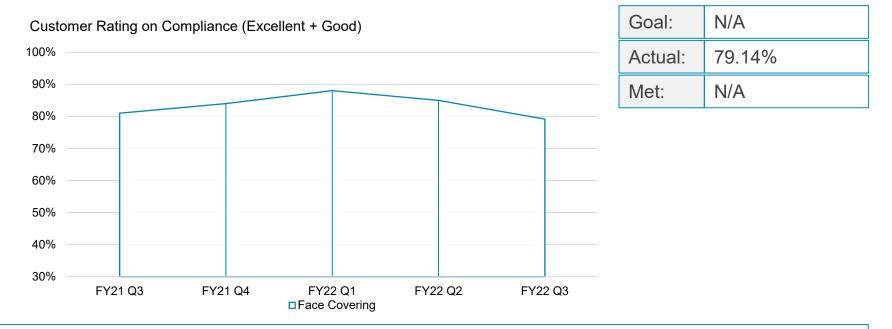


2.08% performance improvement from previous quarter, 4.26% improvement from same quarter last year

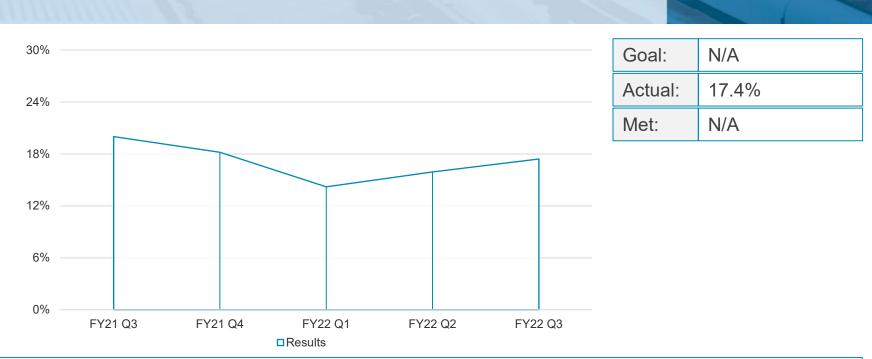
#### **Face Covering**

#### **Passenger Perception - Passenger Survey**





• 6.89% performance decrease from previous quarter, 2.29% decrease from same quarter last year



**Fare Evasion Passenger Survey** 

"Did you see anyone not pay their fare at the station you entered?"

9.39% performance decrease from previous quarter, 12.87% improvement from same quarter last year 

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ART

# **Patron Safety – Station**

**Incidents per 1 Million Passengers** 



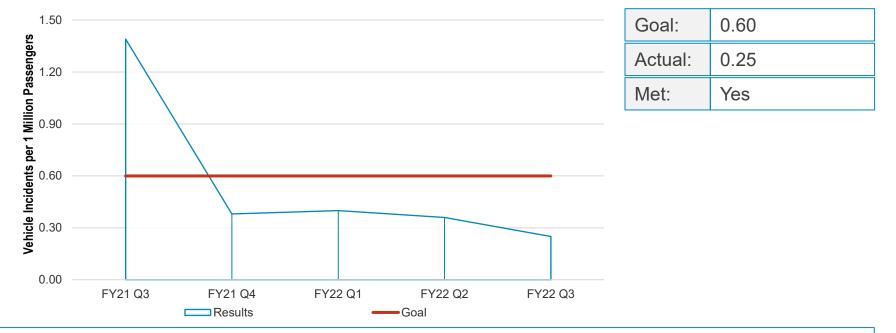


- 44.04% performance improvement from previous quarter, 36.48% improvement from same quarter last year
- Number of incidents this quarter 12; last quarter 21.
  - Stairs 1
  - Escalator 4
  - ➢ Platform − 4
  - Elevator 1
  - Trackway 2

# **Patron Safety – Vehicle**

**Incidents per 1 Million Passengers** 



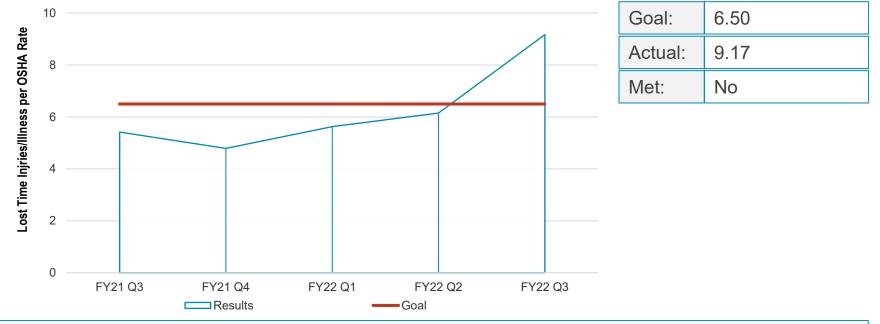


- 30.55% performance improvement from previous quarter, 82.01% improvement from same quarter last year
- Number of incidents this quarter 2; last quarter 3:
  - > On-Board 2
  - > Performance improvement due to passenger increase

#### **Employee Safety – Lost Time**

#### Lost Time Injuries per OSHA Rate

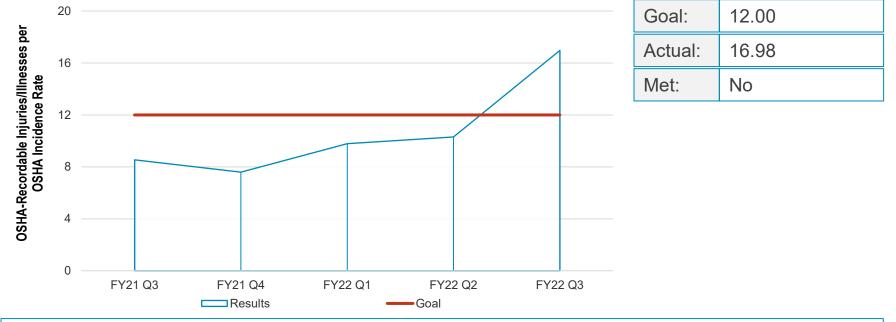




- 49.1% performance decrease from previous quarter, 69.18% decrease from same quarter last year
- Lost time cases count increases by 49% (from 59 to 88) from last quarter
  - > Due to Omicron variant, significant increase in COVID-19 and exposure injuries
  - COVID-19 illness cases increase from 2 to 19
  - Exposure cases increase 1 to 16
  - > Strain injury cases decrease from 14 to 11
  - Sprain injury cases decrease from 8 to 5

# **Employee Safety – Injury Count** OSHA Recordable Injuries per OSHA Incidence Rate





- 64.69% performance decrease from previous quarter, 98.82% decrease from same quarter last year
  - Injury count increases by 43% (from 99 to 142) from last quarter
    - Due to Omicron variant, significant increase in COVID-19 and exposure injuries
    - COVID-19 illness cases increase from 7 to 26
    - Exposure cases increase 2 to 25
    - Strain injuries increase from 25 to 28
    - Sprain injuries decrease from 15 to 8
    - > Trauma injuries increase from 17 to 20

# **Operating Safety – Door Openings**

**Unscheduled Door Openings per Million Car Miles** 

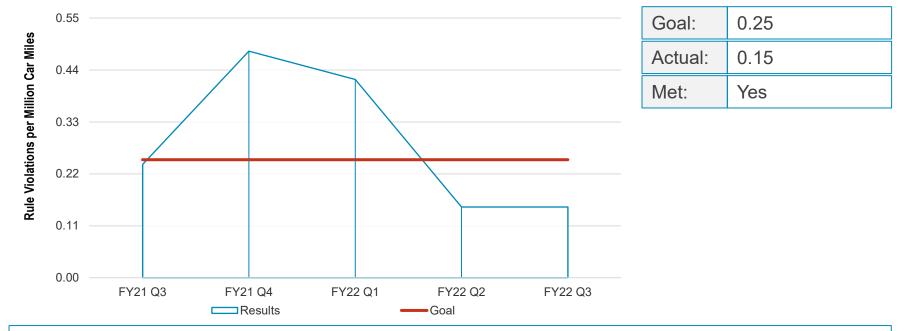


- Flat from previous quarter, 243.75% decrease from same quarter last year
- Number incidents this quarter: 11
- All due to human error (Unauthorized use of emergency door open) except for one due to human error (Transportation)
  - > January 0
  - February 4
  - > March 7

# **Operating Safety – Rule Violations**

**Rule Violations per Million Car Miles** 

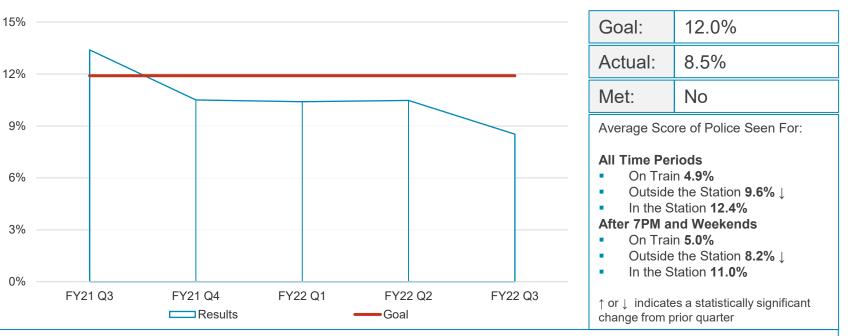




- Flat performance improvement from previous quarter, 37.5% improvement from same quarter last year
- Number of incidents this quarter: 2
  - ➤ 03/04/22 Rule Violation (M&E)
  - > 03/31/22 Safety Procedure Violation- (M&E)

#### **BART Police Presence**

"Did you see BART Police on the Train/Inside Station?"



18.63% performance decrease from previous quarter, 36.49% decrease from same quarter last year

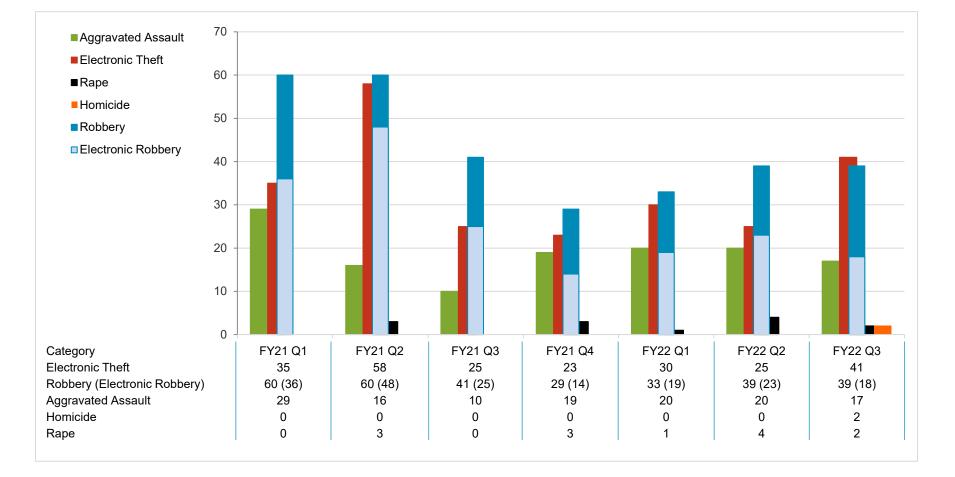
40

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#### **Crimes Against Persons**

#### **Crimes Detail by Category**

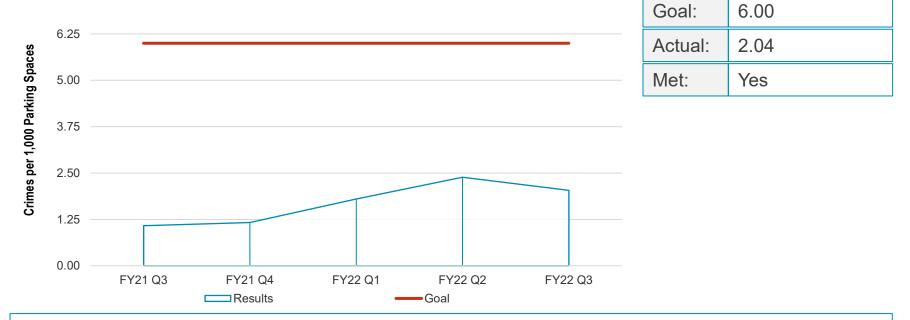




# Auto Burglary

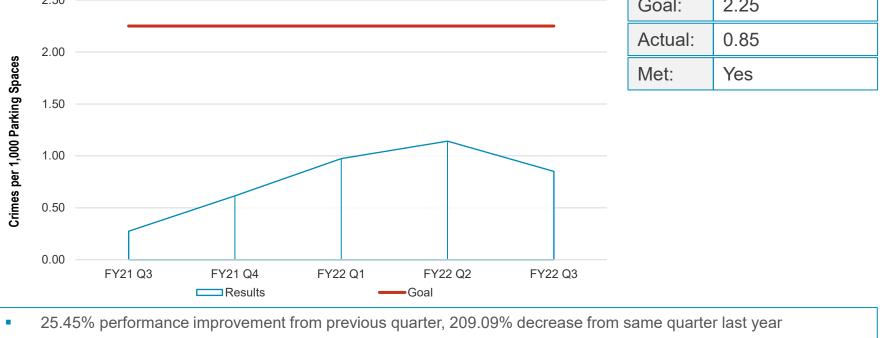
**Crimes per 1,000 Parking Spaces** 





14.78% performance improvement from previous quarter, 88.32% decrease from same quarter last year

# Auto Theft Crimes per 1,000 Parking Spaces



#### **Average Emergency Response Time**

#### **Response Time (in Minutes)**



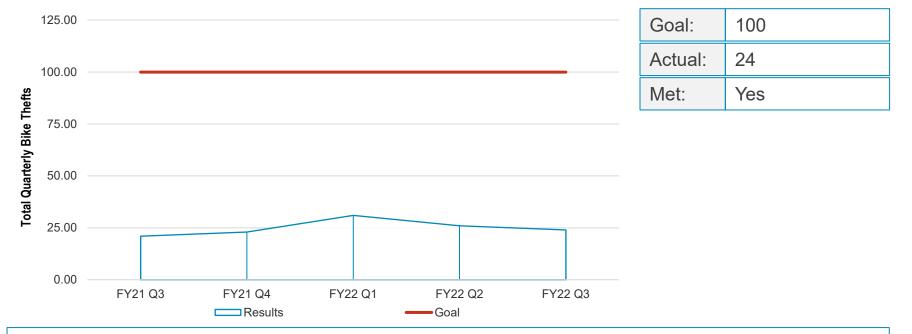


- 22.83% performance improvement from previous quarter, 0.29% decrease from same quarter last year
- Low overall change

# Bike Theft

#### **Count of Bike Thefts**





• 7.69% performance improvement from previous quarter, 14.28% decrease from same quarter last year