Caltrain
Advocacy and Major Projects Committee

February 22, 2023

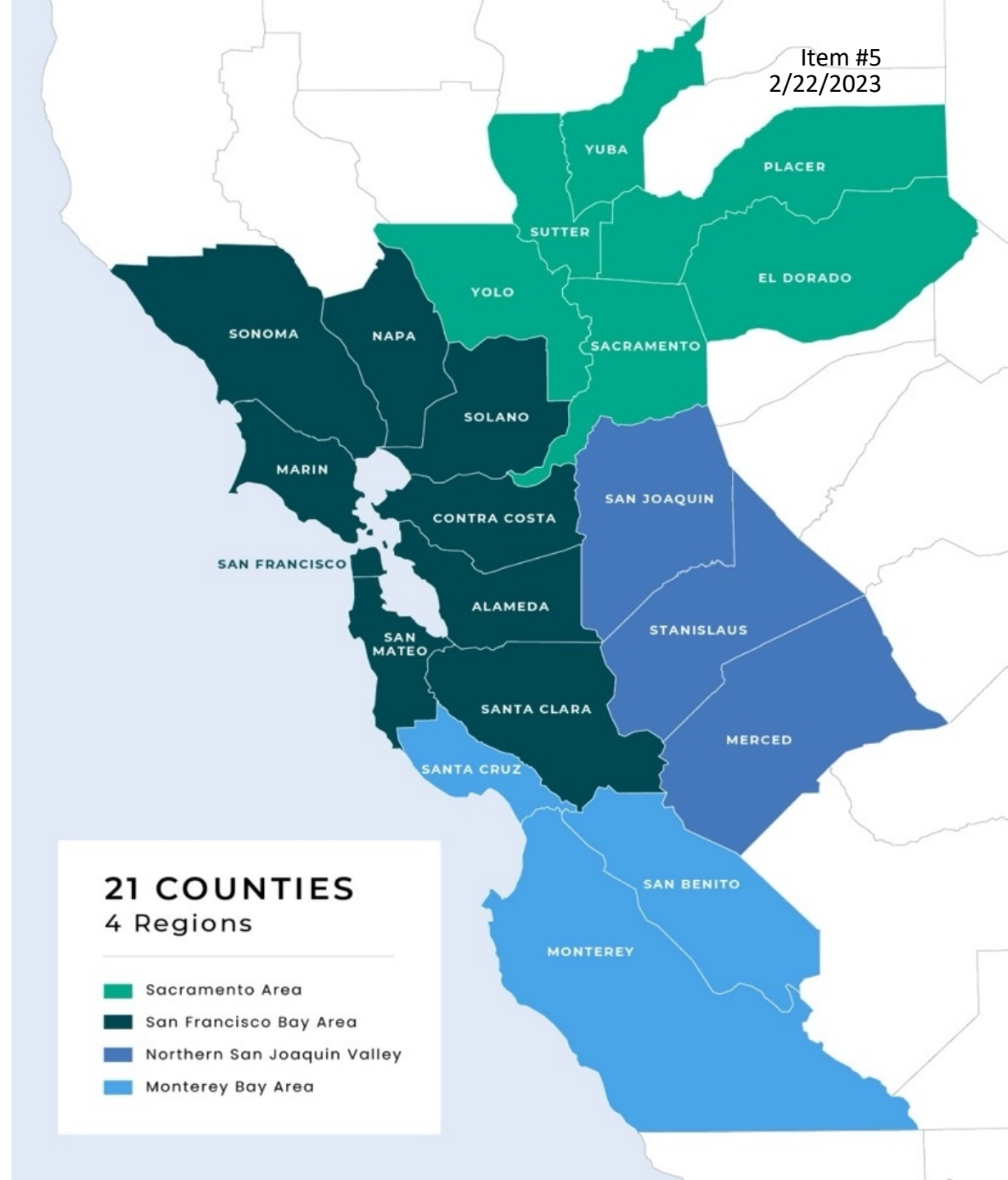# Northern California's Megaregion Today

Economy, Jobs & Housing:

- Fifth largest megaregional economy in country

- Jobs and affordable housing imbalance

Roadway Congestion & Climate Risks:

- Persistent traffic
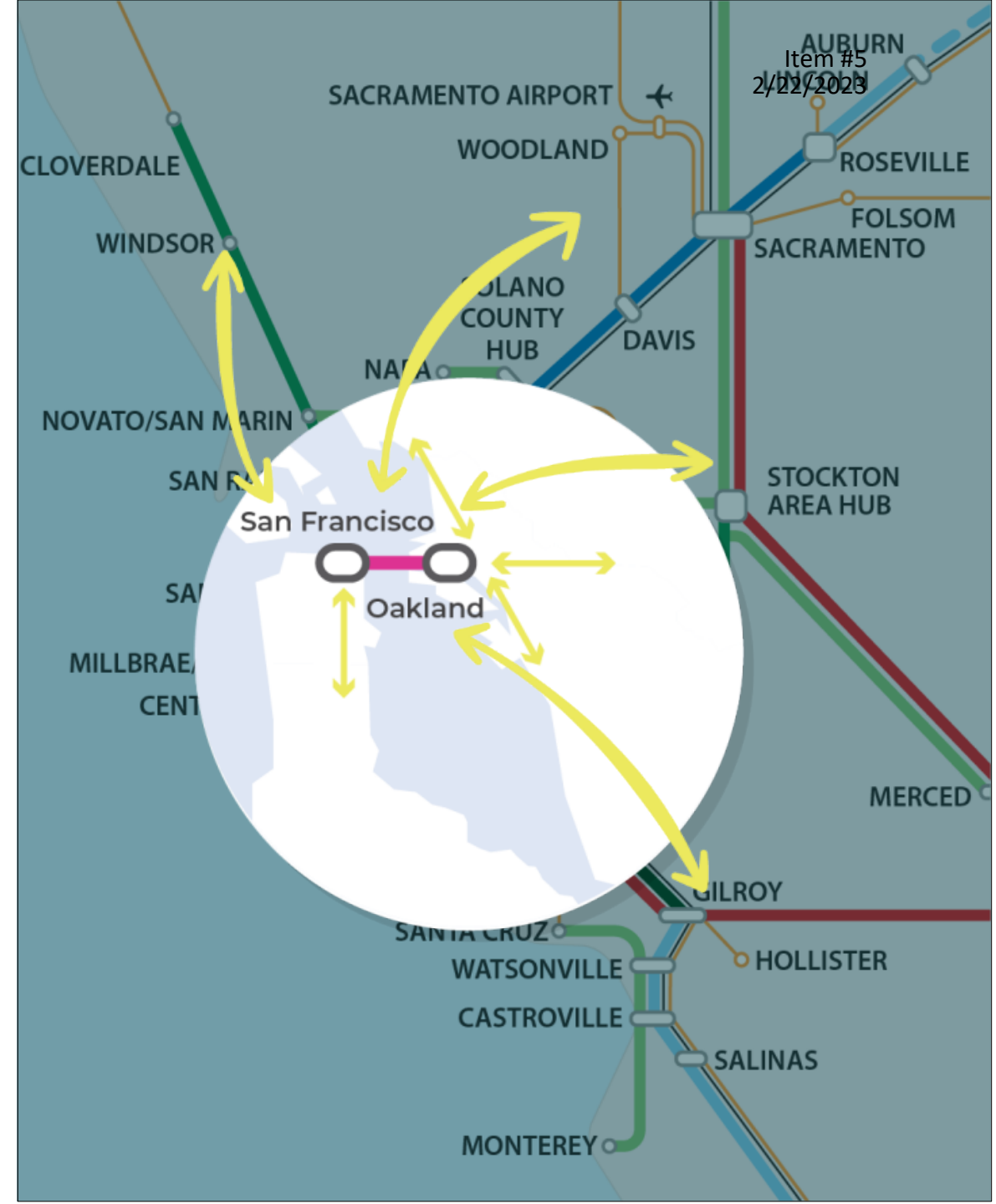
- Climate - and health-damaging air pollution

Passenger Rail Service & Infrastructure:

- Inconvenient, disconnected train network with limited routes and service

- One rail crossing of Bay (BART Transbay Tube)

21 COUNTIES
4 Regions

- Sacramento Area
- San Francisco Bay Area
- Northern San Joaquin Valley
- Monterey Bay Area

Link21: A Program of Projects

- A new transbay passenger rail crossing between Oakland and San Francisco (BART, regional rail or both)

- Synergies between rail projects throughout the Megaregion to reduce the perceived distance between destinations

- Network improvements for both regional rail and BART: better travel time, frequency, hours of service, new markets

Link21 Unlocks Travel Potential

Markets

- Better Megaregional connectivity

Service

- Improved travel, frequency with some one-seat rides, and faster transfer opportunities
- More capacity, service redundancy and reliability, between BART and Regional Rail

Technology

- Greener, lighter, and faster trains

Infrastructure

- Enhanced tracks, signaling, structures, and facilities

26

Link21: Modern Trains and Service

Example: Caltrain EMU

	BART	**MODERN REGIONAL RAIL** URBAN METRO SERVICE	**MODERN REGIONAL RAIL** LONG DISTANCE SERVICE
FREQUENCY	**More frequent trains** Every 2-30 minutes (varies by route/time of day)	**Similar to BART**	**Less frequent trains** Every 30 minutes (varies by route/time of day)
STOPS	**1-5 miles apart**	**Similar to BART**	**5+ miles apart (express service)**
TRACK	**Designated BART only**	**Shared with national network**	**Shared with national network**
SERVICE AREA	**Urban/Suburban Areas** Within 5-County BART District	**Urban/Metro areas**	**Urban/Suburban Centers** Across 21-County Megaregion

NEW TRAIN TECHNOLOGY that is greener, lighter, and faster

February 2023

DRAFT-DELIBERATIVE

Link21 and the Caltrain Corridor

- Caltrain assumptions from Caltrain Service Vision (start with 6TPH per PBA2050)

- Modern vehicles (standard gauge, zero-emission) compatible with Caltrain EMU

- Electrification and Downtown Extension / The Portal are important predecessor projects to Link21

Sources: Caltrain (EMU) and SFCTA (DTX map)

February 2023

DRAFT-DELIBERATIVE

Megaregional benefits: Peninsula / San Francisco to East Bay

More connectivity

- Peninsula direct to Oakland, Berkeley, other East Bay destinations

Improved travel time and traveler convenience

- New Regional Rail crossing would enable some trips without a transfer
- New BART crossing would enable additional transfer points to Regional Rail
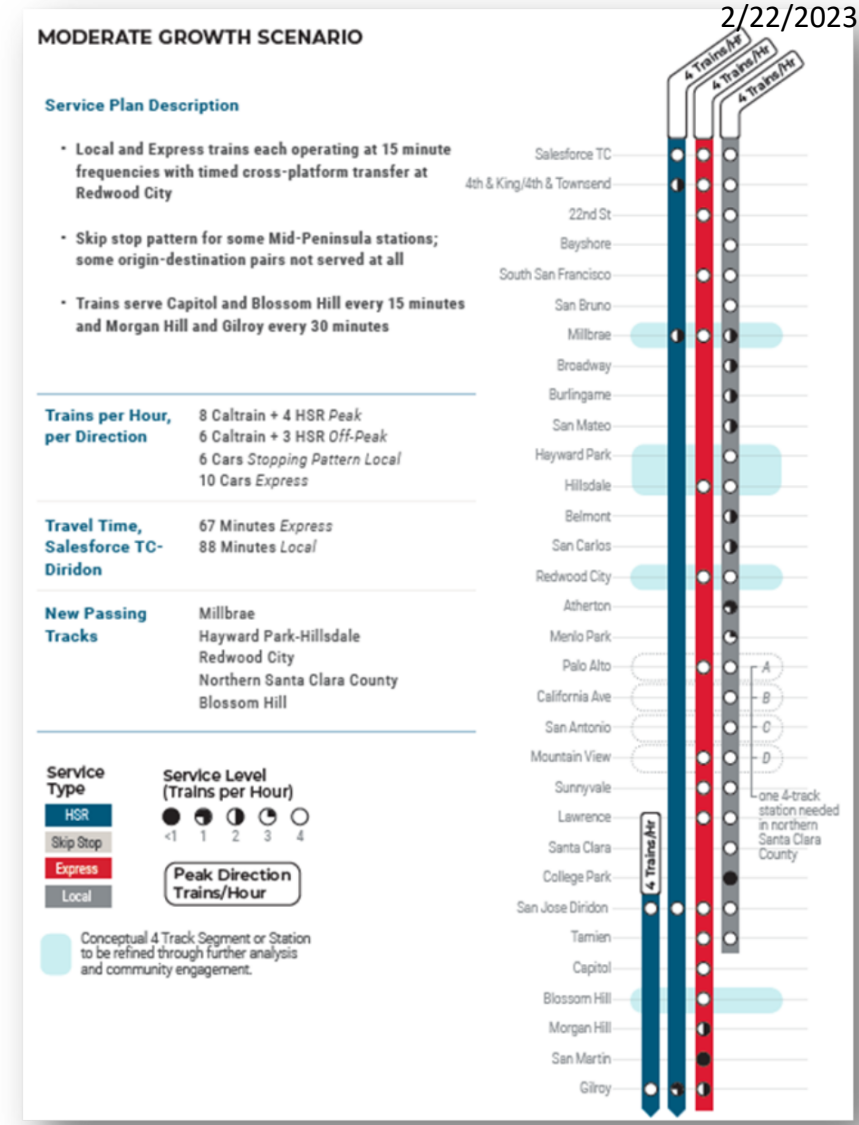
More train service

- Potentially up to 5 min. frequency
- Caltrain to increase frequencies with new electric-powered fleet

LEGEND
— Regional Rail
⊖ Transfer Station
○ Station

29

Service Considerations

- Regional Rail Crossing – 10 TPHPD
  - 6 Caltrain connect to East Bay through crossing
    - Metro Service operation (higher frequency, more stops)
  - 4 TPHPD from East Bay turn at STC
    - Express / Intercity Service (lower frequency, fewer stops)
    - Potential to increase service in crossing consistent with Caltrain's Vision

- HSR – 4TPHPD to STC

- BART (New) Crossing – 24TPHPD
  - Existing BART tube assumed 30 TPHPD
  - Results in increased frequency on all East Bay BART lines

For Regional Rail, mix of service types and stopping patterns - similar to Caltrain service

February 2023

DRAFT-DELIBERATIVE

Link21 Program Timeline

PHASE 0 (2019 – 2022)

PHASE 1 (2022 – 2024)

PHASE 2 (2024 – 2028)

PHASE 3 (2028 – 2039)

PROGRAM DEFINITION
- Business Case Framework
- Problem & Vision Statement
- Goals & Objectives

PROJECT IDENTIFICATION
- Preliminary Business Case
- Identify Project Concepts

PROJECT SELECTION
- Intermediate Business Case
- Project Alternative(s)
- Environmental Review
- Final Business Case & Implementation Strategy

PROJECT DELIVERY
- Funding Strategy
- Design
- Construction
- Testing & Commissioning
- Ready for Service

February 2023

DRAFT-DELIBERATIVE

Link21's Four-Part Business Case

STRATEGIC CASE

ECONOMIC CASE

FINANCIAL CASE

DELIVERABILITY & OPERATIONS CASE

What are the Megaregion benefits?

- Passenger Experience
- Community, Livability, and Equity
- Economic Growth and Competitiveness
- Environmental Stewardship
- Land Use

What are the economic costs and benefits?

- Benefit/Cost Analysis
- User benefits
- Business and Employment

What is the financial viability?

- Revenue Generation
- Cost Effectiveness
- Funding Opportunities
- Financing Options

What is required to deliver and operate the project?

- Governance
- Project Risks
- Construction and Operations
- Network Functionality

February 2023

DRAFT-DELIBERATIVE