



CONNECT NORTHERN CALIFORNIA

Equity Advisory Council (EAC) Meeting #2

February 28, 2023

February 2023

DRAFT-DELIBERATIVE



Agenda Item 1: Call To Order



Virtual Meeting Details



Includes
Closed
Captioning



Technical
Support
Use raise hand
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Agenda Item 2: Roll Call



Agenda Item 3: Public Comment



INSERT TIMER HERE



Agenda Item 4: Meeting Topics



AGENDA ITEM A: Action Item

Approval of February 14, 2023, Meeting Minutes



AGENDA ITEM B: Welcome & Introductions

EAC Member Introductions

- Name, Location, Pronoun
- Share your lived and/or professional experience that applies to serving on the EAC
- Goals as a member of the EAC

EAC Member Roles & Responsibilities within Link21



AGENDA ITEMS C-F: Agenda Review

Introduction to the Business Case

Link21 Concept Development

Environmental Process Overview

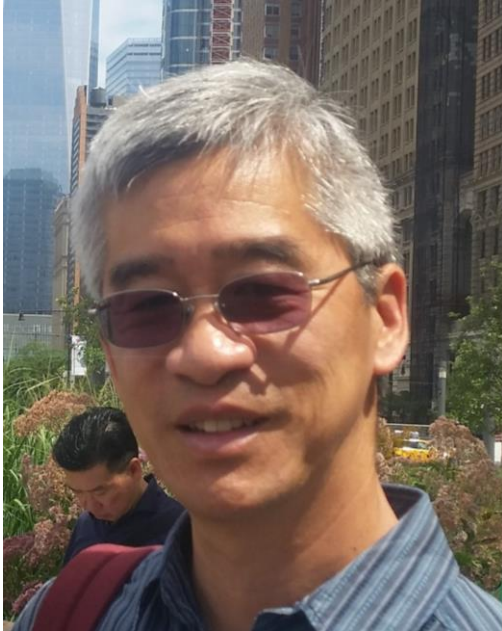
Environmental Constraints & Opportunities Report





AGENDA ITEM C: Introduction to the Business Case

Meet the Team



Andrew Tang

Manager of Program
Evaluation, Link21



Emily Alter

Equity & Inclusion
Lead – North America,
Steer



Sarah McMinimy

Business Case
Analyst – Equity, Steer



Why use a Business Case Approach

A Business Case is used to identify why a problem or opportunity should be addressed and helps us evaluate whether proposed investments help us reach our stated goals.

- Clearly identifies benefits, costs, and risks
- Makes the best, most efficient use of limited resources
- Evaluates potential alternatives in a transparent, consistent, and evidence-based way
- Optimizes alternatives through evidence on the value and likely outcomes of each alternative



What does a Business Case Entail?



STRATEGIC CASE

What are the Megaregion benefits?

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



ECONOMIC CASE

What are the economic costs and benefits?

- Benefit/Cost Analysis
- Business and Employment
- Jobs and Housing



FINANCIAL CASE

What is the financial viability?

- Revenue Generation
- Funding Opportunities
- Financing Options



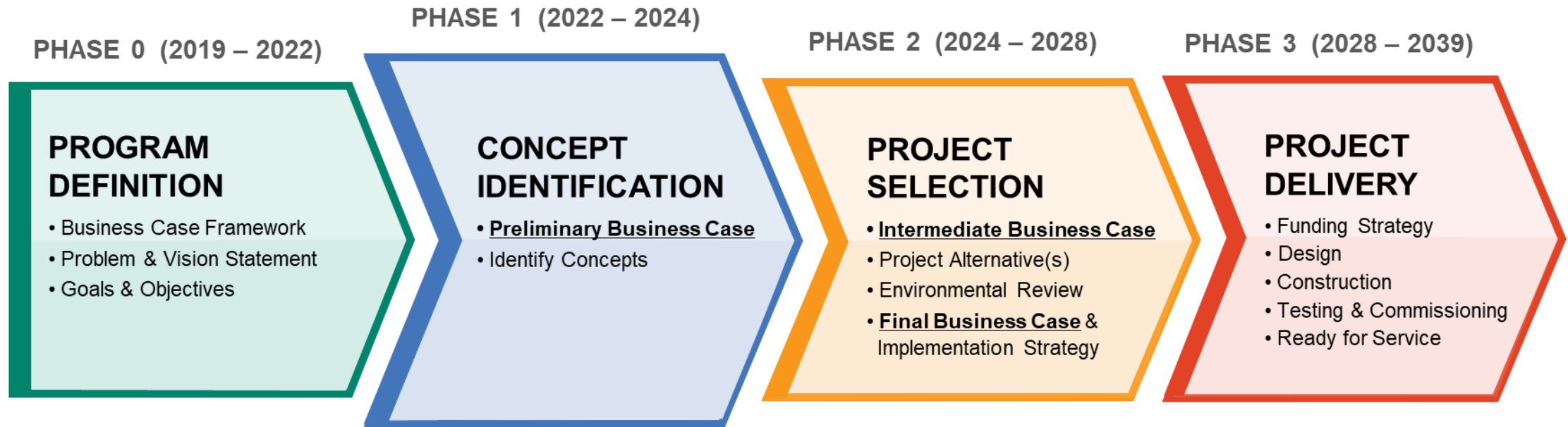
DELIVERABILITY & OPERATIONS CASE

What is required to deliver and operate the project?

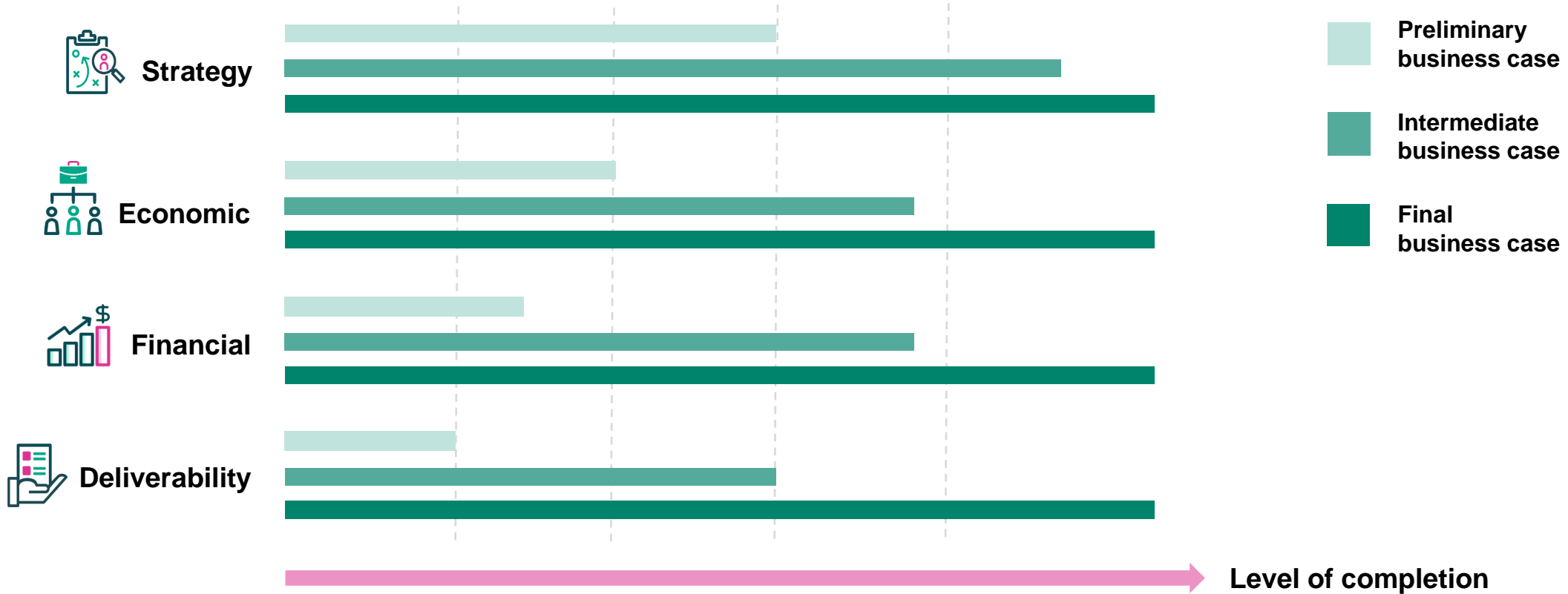
- Governance
- Project Risks
- Construction and Operations
- Network Functionality



Link21 Program Timeline



Level of Detail of 4 Cases Evolves Over Time



Process designed to optimize use of resources with more detailed analyses performed only on the more promising alternatives



Problem Statement

NORTHERN CALIFORNIA MEGAREGION

- 21 counties, 24,000 square miles, 16M people by 2050
- Fifth largest U.S. megaregional economy, growing rapidly

EQUITY CHALLENGES

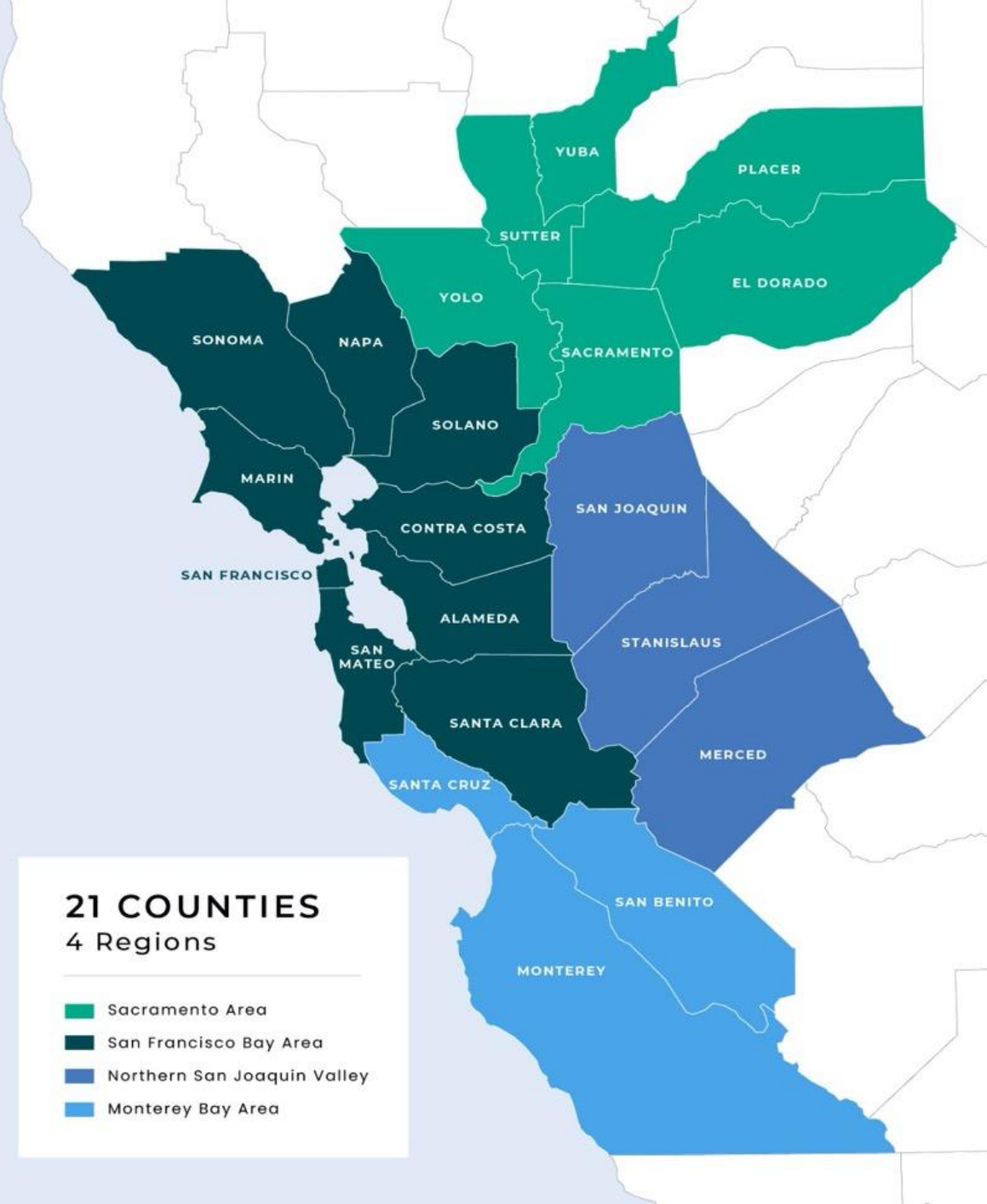
- Increasing income inequality and displacement
- Many struggle to live affordably

UNMET TRANSPORTATION NEEDS

- Inadequate capacity (especially Transbay Corridor)
- Transit and rail often unavailable, unaffordable, or undependable
- Priority populations facing severe transportation challenges

BROADER SOCIOECONOMIC IMPACTS

- Worsening livability, escalating burdens for priority populations
- Hindrance to future economic opportunity
- Damage to community stability, environment, and public health



Link21 Goals & Objectives

TRANSFORM THE PASSENGER EXPERIENCE

- Provide better service
- Improve reliability and system performance
- Build ridership and mode share



PROMOTE EQUITY AND LIVABILITY

- Connect people and places
- Improve safety, health, and air quality
- Advance equity and community stability



SUPPORT ECONOMIC OPPORTUNITY AND GLOBAL COMPETITIVENESS

- Improve access to opportunity and employment
- Connect major economic, research, and education centers
- Enable transit-supportive and equitable land use



ADVANCE ENVIRONMENTAL STEWARDSHIP AND PROTECTION

- Increase climate change resilience
- Reduce greenhouse gas emissions
- Conserve resources

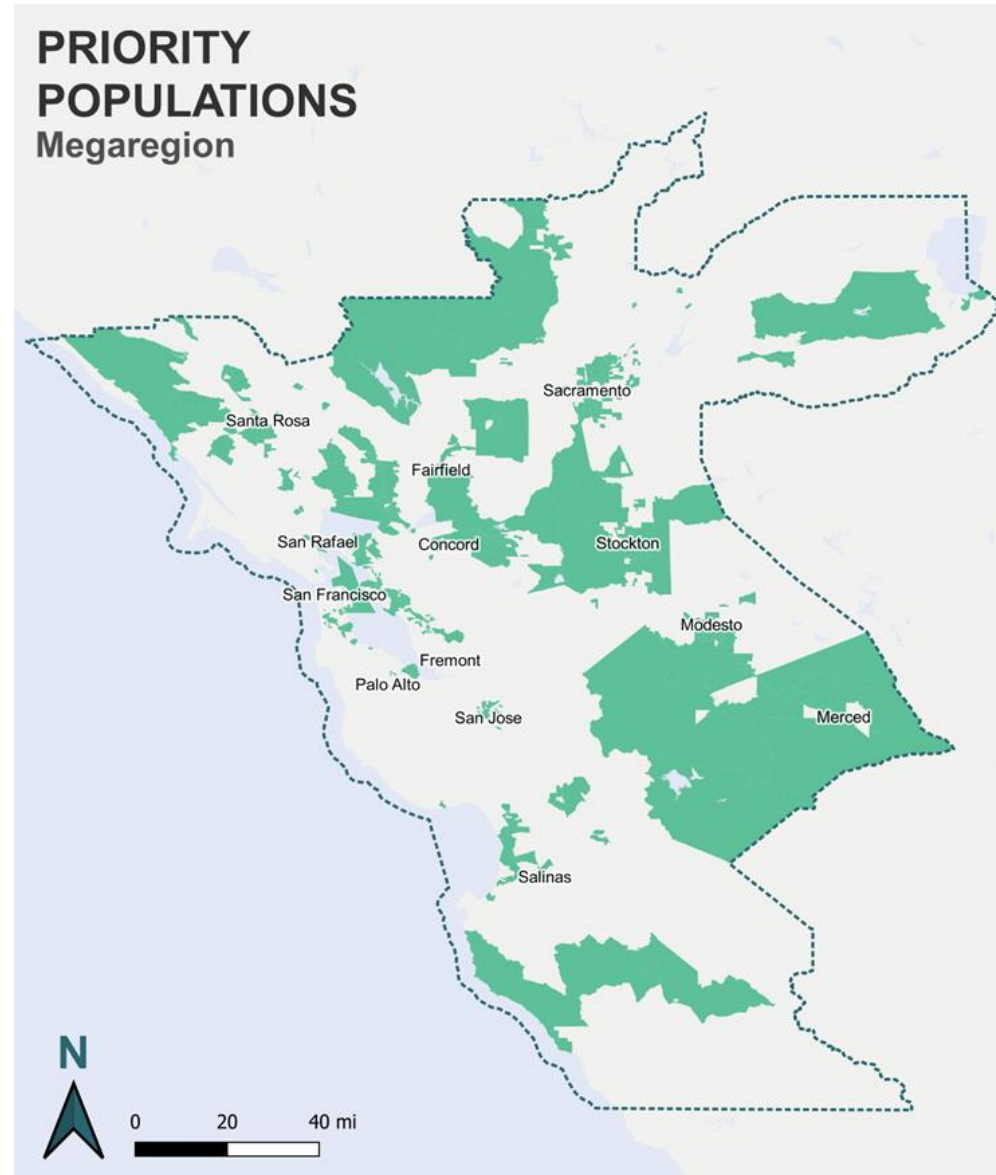


Priority Populations

Priority Populations is a **geographic designation** which is used **to review the distribution of project benefits or negative impacts**

Identifies areas experiencing the greatest number of burdens related to Economic, Mobility, Community, Health & Safety

Used in evaluation to see if goals and objectives are achieved in communities prioritized from an equity perspective



Priority Population Process

Need: a community-responsive approach to reflect the unique geography, align with program goals, and evaluate performance



Developed in coordination with Link21 Equity Team & BART's OCR



Provided direct pathway for community to influence the analysis



Designed to enable analysis in different geographies within the Megaregion





Strategic Case

How does the Link21 achieve the desired benefits of the project?

- Achieve the Vision, Goals and Objectives
- Specific metrics to evaluate concept performance against the Goals & Objectives

The Problem Statement

The central issues being addressed by the Business Case.

The Vision

How solving the problem relates to the Megaregion desired long-term benefits.

Goals

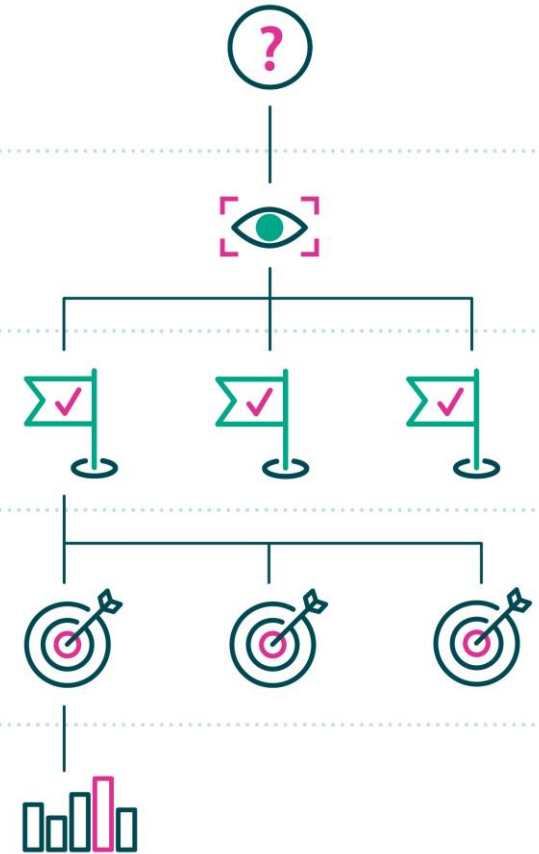
Broad strategic propositions that directly support the realization of the Megaregion vision.

Objectives

Specific and measurable statements to measure how addressing the problem can realize the strategic benefits.

Metrics/Performance Measures

A metric is used to assess progress towards meeting an objective.



Strategic Case Metric Example

Metrics have been developed to evaluate the **performance** of Link21 program concepts against the **goals and objectives**.

GOAL: PROMOTE EQUITY AND LIVABILITY

Objective B1: Enhance connectivity

Metrics

1. **Jobs accessible from people's homes** ←
2. Non-work destinations accessible from people's homes
3. Availability of rail options near people's homes

Priority Populations

- Jobs accessible to priority populations

Total Population

- Jobs accessible to total population





Economic Case

What is the investment's economic value to the region and its residents?

- Assess the economic costs and benefits
- Value different impacts in dollars
- Assess impacts to employment and productivity

Economic Benefits for Transit Projects

Benefit Category	Benefit Examples
User benefits	<ul style="list-style-type: none"> • Travel time savings for new and existing transit users • Auto user impacts (time and cost savings)
External benefits	<ul style="list-style-type: none"> • Reduced air contaminants • Reduced greenhouse gas emissions • Decreased auto collisions
Wider economic benefits	<ul style="list-style-type: none"> • Improved access to jobs • Increased productivity
Costs	<ul style="list-style-type: none"> • Capital costs • Operating costs • Maintenance costs



Economic Case Metric Example

Intent of benefit cost ratio is to answer the question:
"Does the investment produce more value than it will cost?"

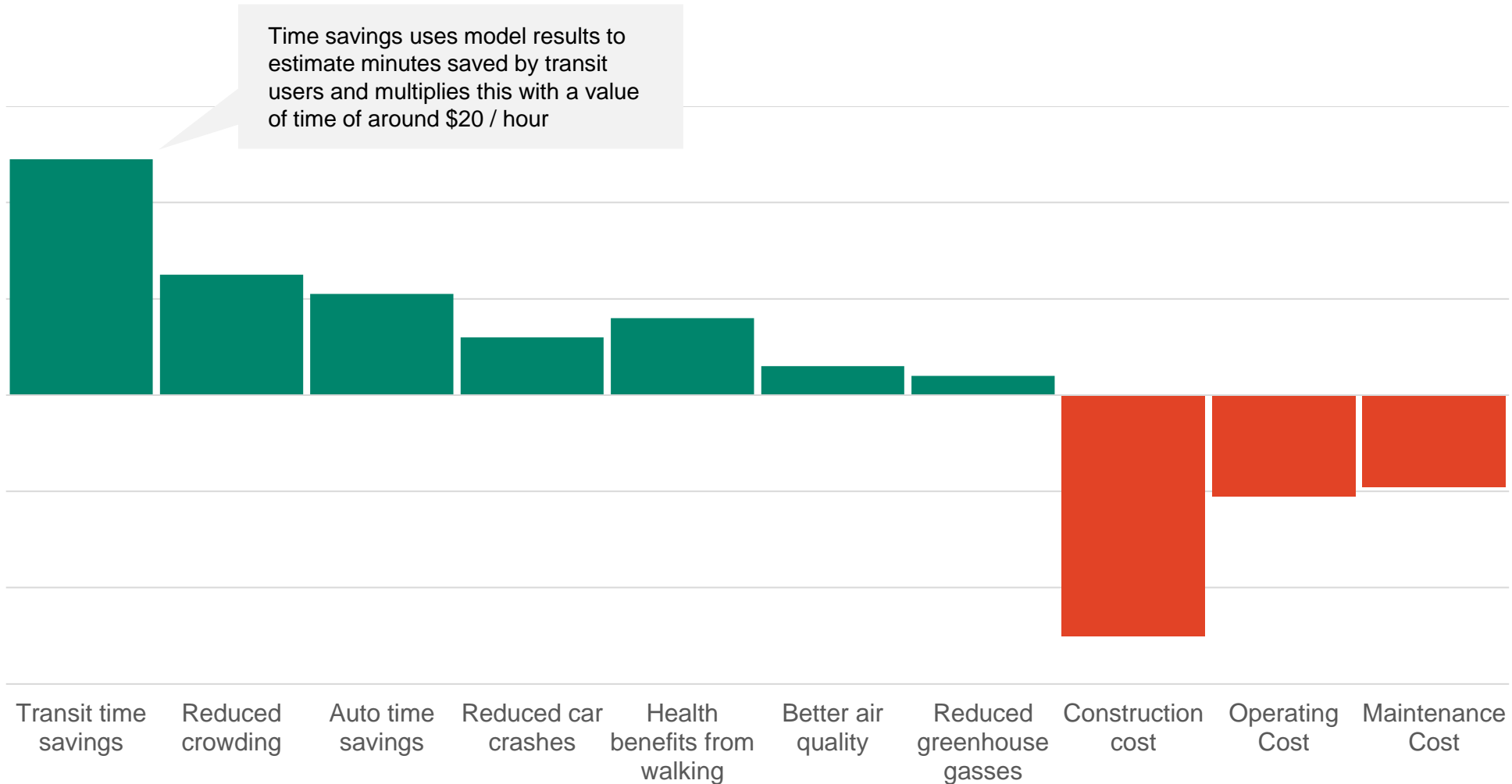
$$\text{Benefit Cost Ratio} = \frac{\text{Total benefits}}{\text{Total costs}}$$



A benefit cost ratio can be used to compare projects and direct funding to the projects that provide the highest return.



Economic Case Metric Example





Financial Case

What are the financial implications?

- How much will Link21 cost to build and operate?
- Evaluate revenue impacts
- Evaluate capital, operations & maintenance, other lifecycle costs
- What is the affordability and fundability?

Key Indicators for Financial Case

1. Farebox Recovery Ratio =

$$\frac{\text{Total Revenue from Fares}}{\text{Total Operating Costs}}$$

2. Net Financial Impact =

$$\text{Total discounted revenue} \\ \textit{minus}$$

$$\text{Total discounted costs}$$

3. Affordability and Fundability



Financial Case Metric Example

Affordability & Fundability assesses the affordability and fundability of different Concepts based on several criteria:

- Cost of the Project
- Likelihood of funding
 - Funding sources available for the concept (e.g., different if BART or Regional Rail)
 - Competition for funding (e.g., regional, statewide, national)
 - Concept performance based on funding criteria (e.g., Justice40, GHG reduction)





Deliverability Case

How can the project be delivered and what are the key risks?

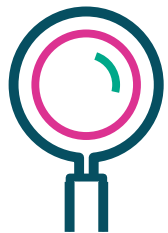
- The Deliverability and Operations Case details the technical and institutional requirements to deliver the investment
- At this stage of the Business Case, the deliverability case is focussed on identifying risks associated with concept delivery:
 - Engineering and construction risks
 - Environmental risks
 - Governance and stakeholder management risks
 - Equitable land use and risk of indirect displacement



Deliverability Case Metric Example

Displacement risk scores assessed at a high-level based:

- Change in land use demand (program induced)
- Present displacement risk (Urban Displacement Project)
- Policy Context
- (Preliminary) Jurisdictional Willingness



Stations with high displacement risk will be flagged.
Engagement with jurisdictions.



Equity Inputs to Evaluation Process to Date



L21 Equity Team
& OCR Input



Co-Creation



Equity
Poll



Prioritization of Equity as program Goal



Priority Populations Definition



Prioritization of Metrics



Mainstreaming equity throughout
all metrics evaluation



Equity-specific metrics in Deliverability Case



Seeking Your Advice Moving Forward



Review business case methodology



Review our approach for building recommendations



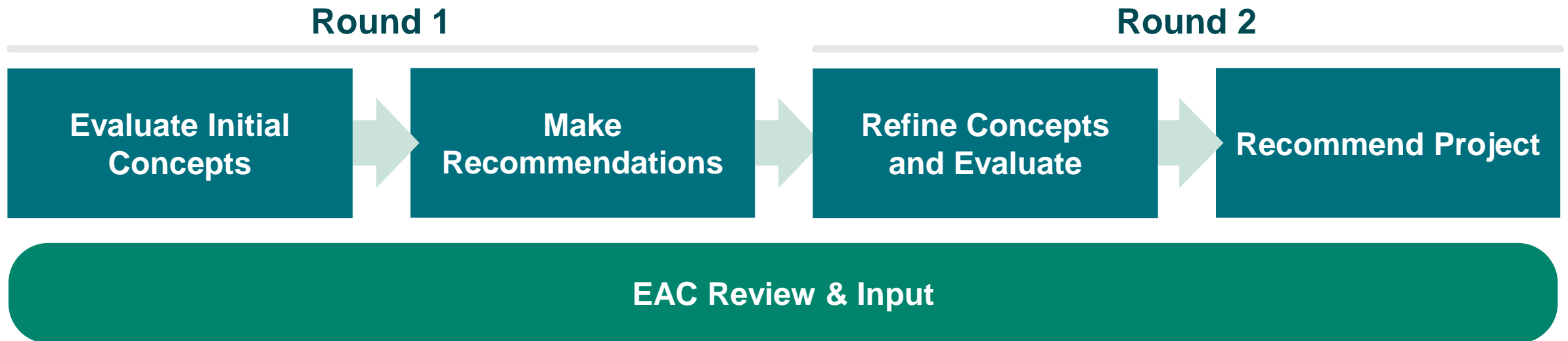
Advise on approach for assessing risks (e.g. displacement)



Review evaluation results and recommendations



Next Steps & EAC Involvement





AGENDA ITEM C: Link21 Concept Development

Meet the Team



Camille Tsao

Program Lead,
CCJPA



Brian Soland

Rail Planning
Manager, BART
(overseeing Planning
and Engineering)



Chester Fung

Program Manager for
Planning and
Engineering





Initial Concepts and Insights

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

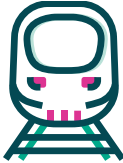


- Greener, lighter, and faster trains

Infrastructure

- Enhanced tracks, signaling, structures, and facilities



Link21: New Trains and Service

	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



Link21 Fall 2022 Outreach



- **Multi-faceted Activities:** Megaregional and targeted outreach
 - In-person briefings, presentations, tabling
 - Virtual meetings, office hours, social and website engagement



- **Ongoing Communication:** Phase 1 education and awareness
 - Current planning activities
 - Concept development and examples
- **Input Gathering:** Potential stations and service needs



In-Person Engagement

Total Direct In-person Connections = **1,430+**

Community Tabling

9 Events
7 Cities
750 Direct Connections

In-Station Tabling

9 Events
6 Cities
290 Direct Connections

Student/Youth Tabling

3 Total Events
3 University Campuses
350+ Direct Connections

Tribal Event Tabling

1 Event
1 City (across N. California)
40 Direct Connections



Virtual Engagement

Briefings and Presentations

23 Events

21 Counties

150 Direct Connections

Speakers Bureau

9 Presentations

1 State (statewide organizations)

100+ Direct Connections

Virtual Meetings/Office Hours

7 Events

53 Cities (across Megaregion)

181 Direct Connections

Total Direct Virtual
Connections = **430+**

Meet Our Speakers Panel

Sadie Graham
Link21 Program Director – BART

Camille Tsao
Link21 Program Lead – CCJPA

Nicole Franklin
Link21 Engagement & Outreach Manager – BART

Chester Fung
Link21 Planning & Engineering Delivery Manager – HNTB

Linton Johnson, Link21

What We Heard

Highlights of Service Need Polling

Most popular connections with new crossing

1. San Francisco ⇌ Oakland & Alameda
2. San Francisco ⇌ Emeryville, Berkeley, & Richmond
3. S. Peninsula, Silicon Valley, San José ⇌ W. Oakland, Downtown, Jack London Square & Alameda

Most popular reasons for train travel

1. Get to airport (SMF, SFO, OAK, SJC)
2. Entertainment (concerts, sporting events & festivals)
3. Commute to work

Most popular travel times

1. Weekends, afternoons (Noon-7pm)
2. Weekdays, rush hours (7am-10am & 4pm -7pm)
3. Weekends, night (7pm-1am)

Virtual Meeting Polling

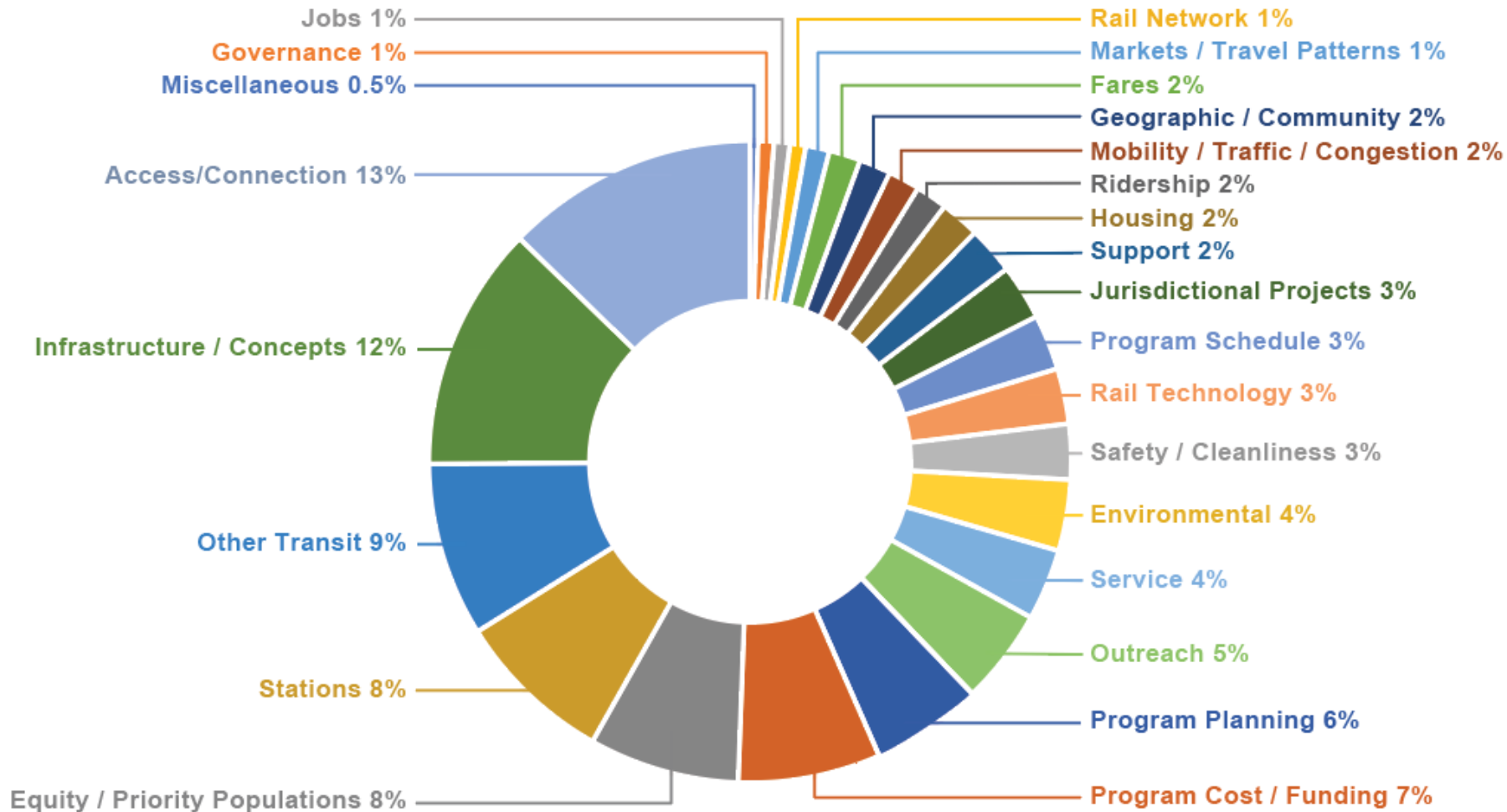
The infographic is titled "Ways to Participate in Polling" and features a small video inset of Linton Johnson, Link21, in the top right corner. It lists four participation methods:

- Computer:** Represented by a laptop icon. Instruction: www.pollev.com/kwpoll1 on internet browser.
- Smart Phone:** Represented by a smartphone icon. Instruction: www.pollev.com/kwpoll1 on internet browser.
- Text Message:** Represented by a smartphone icon with a text bubble. Instruction: Text [kwpoll1](http://www.pollev.com/kwpoll1) to 22333 on mobile device.
- QR Code:** Represented by a QR code icon. Instruction: Scan QR Code from mobile device camera to access poll.

A Link21 logo is located in the bottom right corner of the infographic.

Comments by Category

300+ Comments/Questions Received



Example Concepts

Incorporating Equity into Concept Development

Ongoing Approach

- Equity Training with Planning & Engineering Leads
- Internal Equity Considerations Tracking (historical context and cultural awareness)
- Internal Technical Tours (w/equity stops and discussions)
- Planning & Engineering Equity Assessment (prompts to identify general inequities)
- Identify specific equity indicators that are map-able (understand equity by concept)



Incorporating Equity into Concept Development

Incorporating Community Input

- (un)desired lived experience with service to meet travel needs
- (un)desired lived experience for residents near stations
- (un)desired areas for transportation hubs
- Community perspective on the pros and cons of transportation hubs in their neighborhood
- Community resources and sacred spaces to preserve from displacement & disruption



Example Concepts: Regional Rail & BART in Crossing

ONE ALIGNMENT - TWO STRUCTURES



TWO ALIGNMENTS - TWO STRUCTURES



- Regional Rail Concept
- Regional Rail Concept (Tracks Underground)
- Regional Rail Concept (Possible Improvements)

- BART Concept
- BART Rail Concept (Tracks Underground)
- BART Rail Concept (Possible Extension)

- Stations**
- BART
 - Regional Rail
 - Transfer

- Existing and Planned**
- BART
 - Regional Rail



Example Concepts: What We Learned

- All early concepts would:
 - Relieve crowding in existing crossing
 - Advance equity in different ways
 - Require additional improvements, connections beyond crossing to be effective
- Regardless of crossing technology, quality transfers create true rail network
- High travel demand intra-East Bay, intra-San Francisco
- Four-track crossing (BART and Regional Rail simultaneously):
 - Not cost effective, does not generate enough ridership
 - Will not preclude both crossings in the future

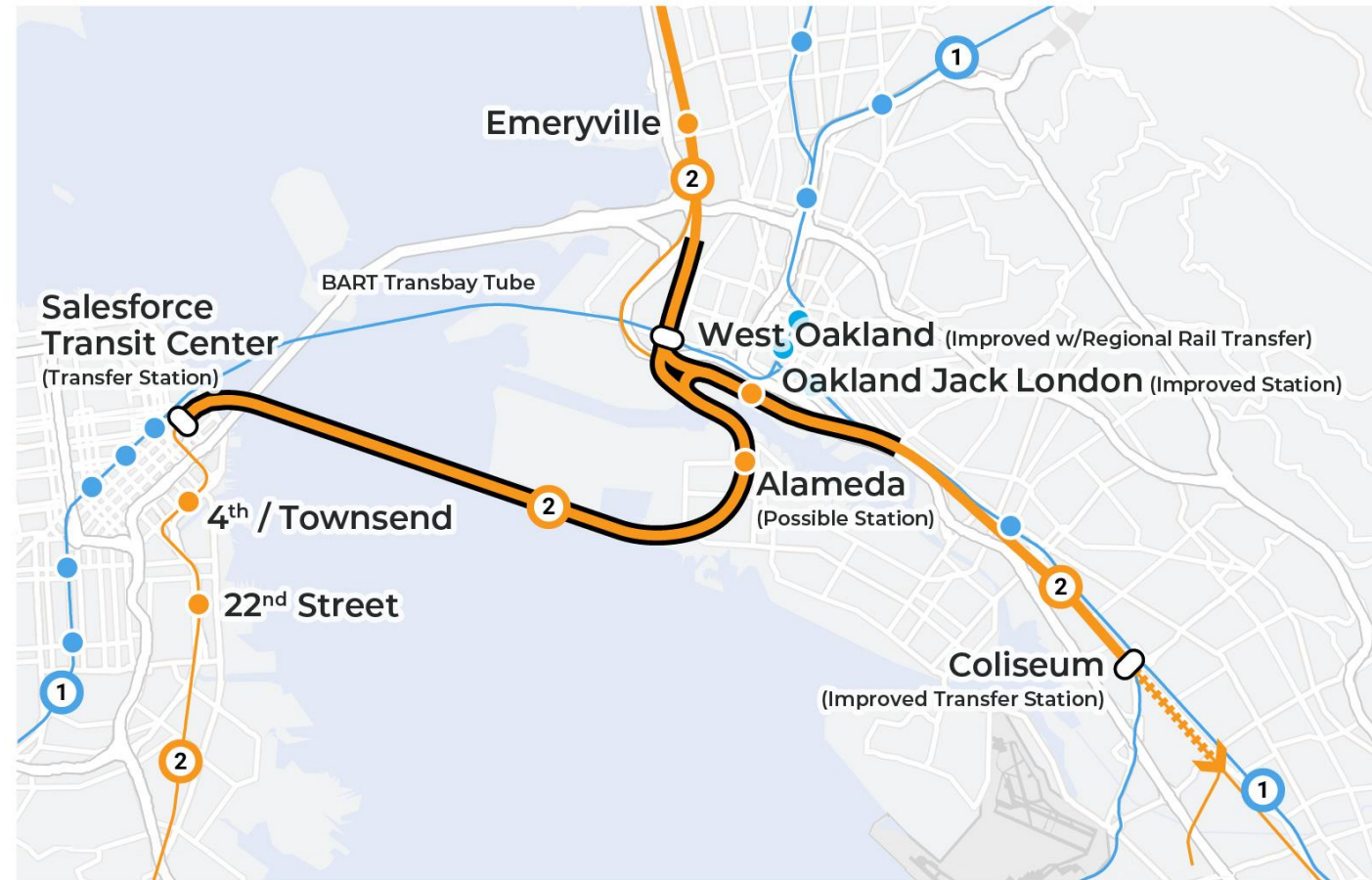


Initial Concepts

Initial Concept A: Regional Rail in Crossing

- Introduced in fall 2022
- Prioritizes serving Oakland/Alameda markets over travel time for longer trips
- New connection with BART at West Oakland BART or relocated Regional Rail Oakland Jack London
- Additional BART improvements TBD

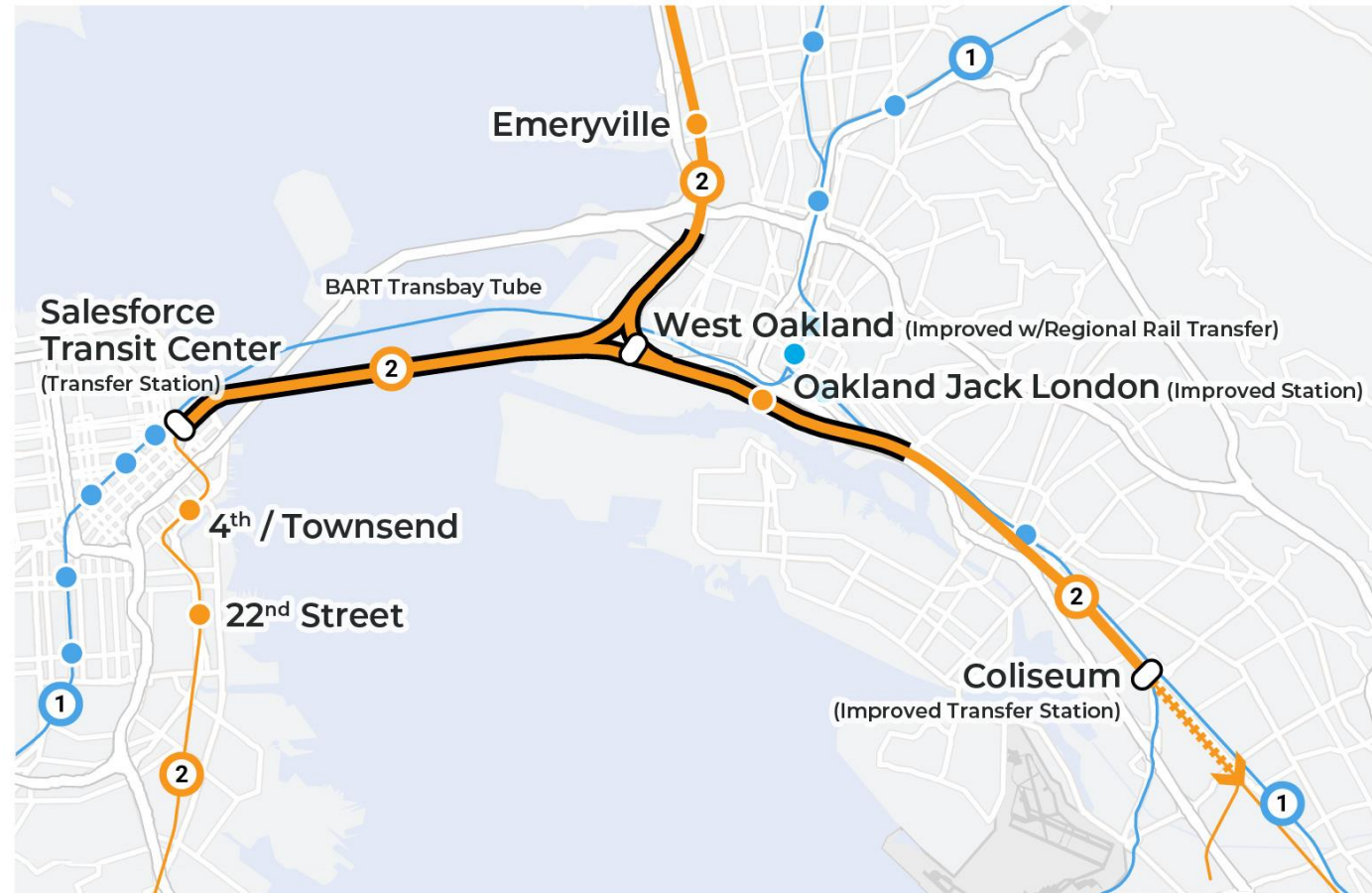
RR STC via Alameda



Initial Concept B: Regional Rail in Crossing

- Introduced in fall 2022
- Prioritizes travel time for longer trips (straight shot to San Francisco)
- New connection with BART at West Oakland BART or relocated Regional Rail Oakland Jack London
- Additional BART improvements TBD

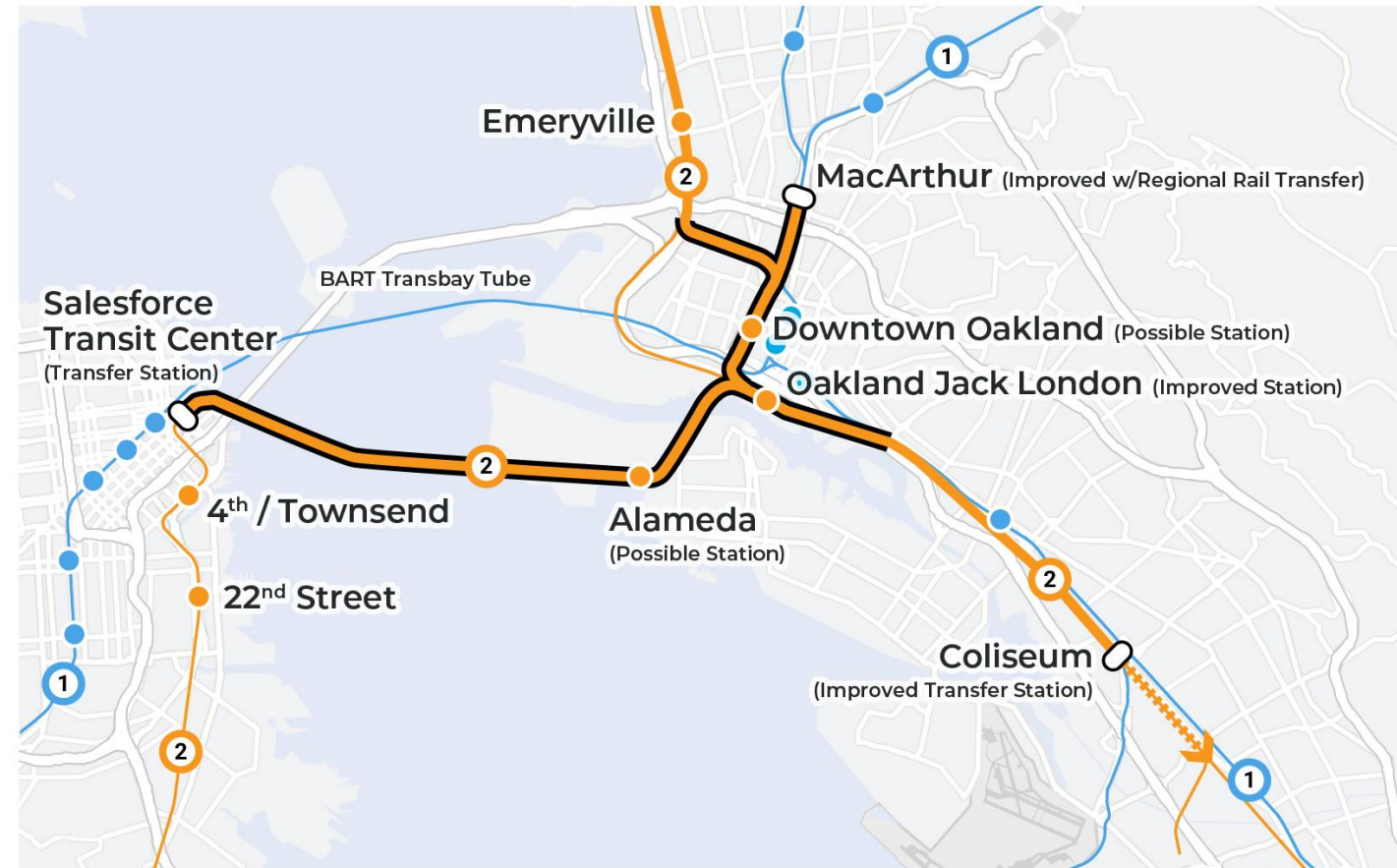
RR STC via Port



Initial Concept C: Regional Rail in Crossing

- Introduce in 2023
- In urban core areas, new metro service in addition to intercity service
- New or improved connection with BART at MacArthur BART station, Oakland Jack London, Coliseum station
- New Downtown Oakland, possible Alameda station
- Additional BART improvements TBD

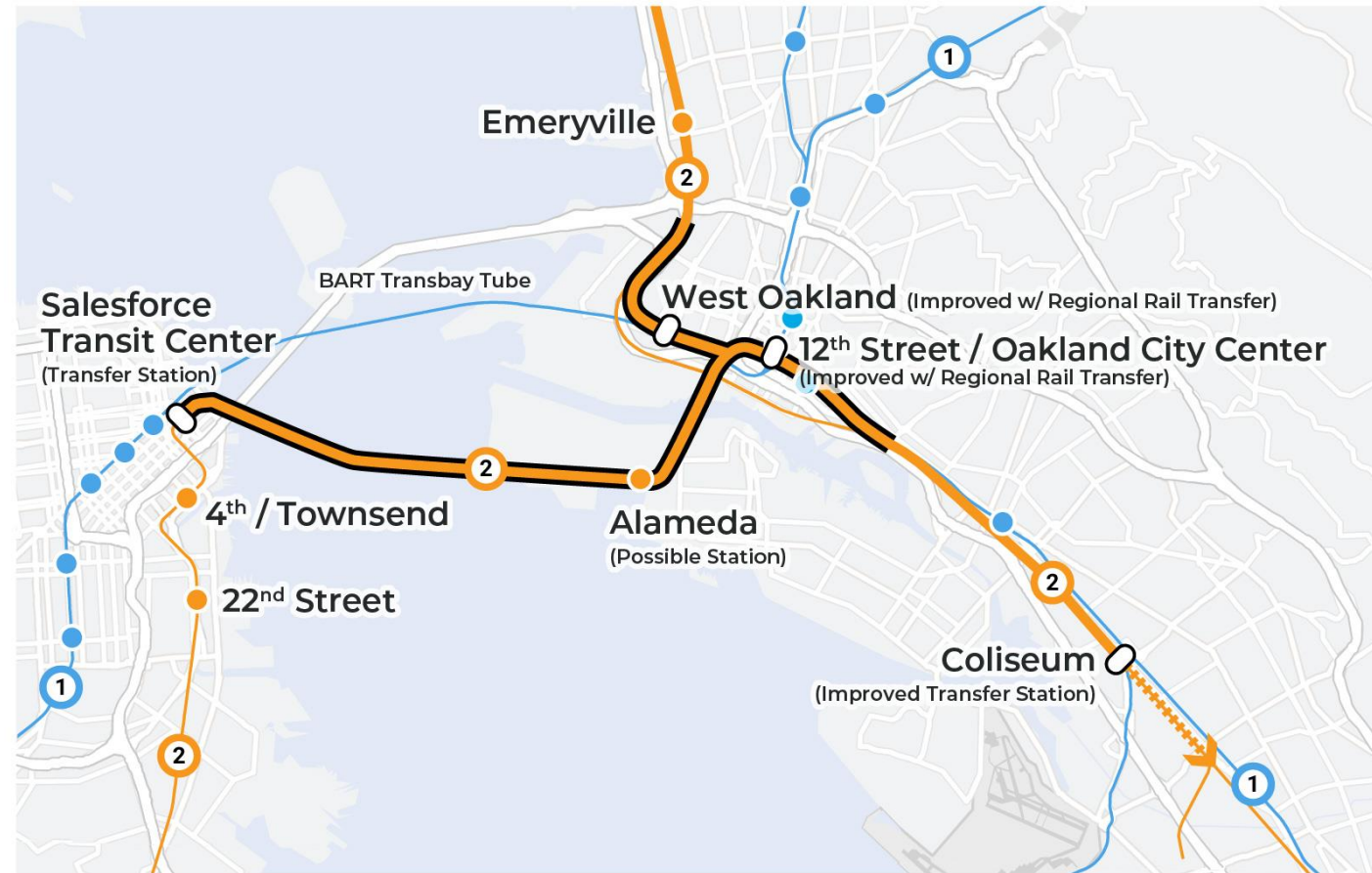
RR STC to MAC via Alameda



Initial Concept D: Regional Rail in Crossing

- Introduce in 2023
- In urban core areas, new metro service in addition to intercity service
- New or improved connection w/ BART at 12th St. / City Center, Coliseum station and Richmond
- New possible Alameda station
- Additional BART improvements TBD

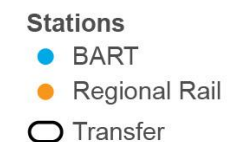
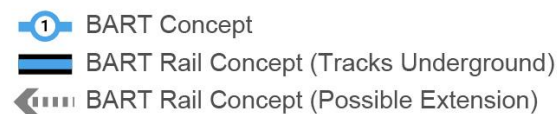
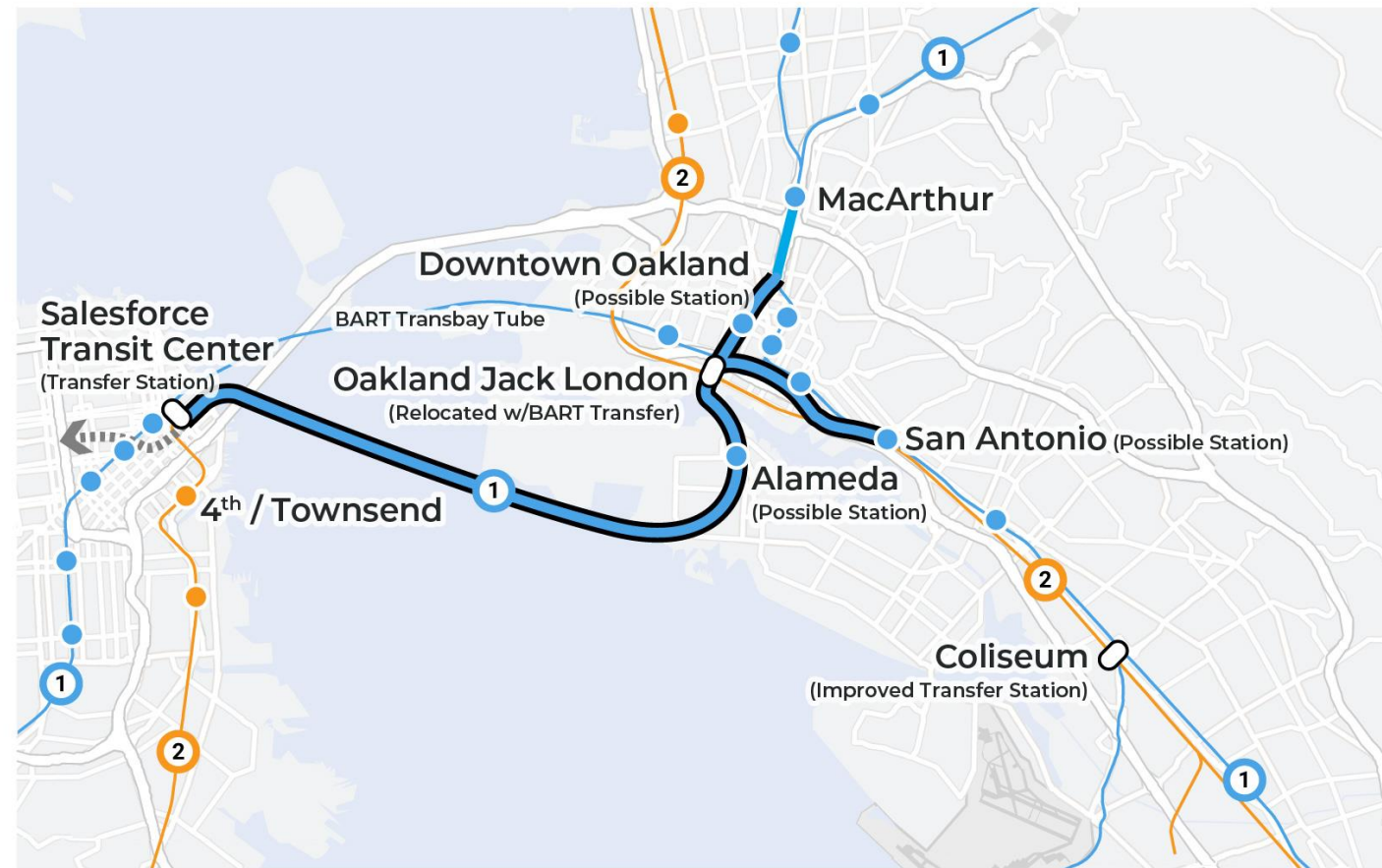
RR STC to Oakland City Center via Alameda



Initial Concept E: BART in Crossing

- Introduced in fall 2022
- In SF, prioritizes serving Market St. / Financial District
- New connection with Regional Rail relocated Regional Rail Oakland Jack London
- New possible San Antonio (Oakland), Alameda station
- Additional RR improvements TBD

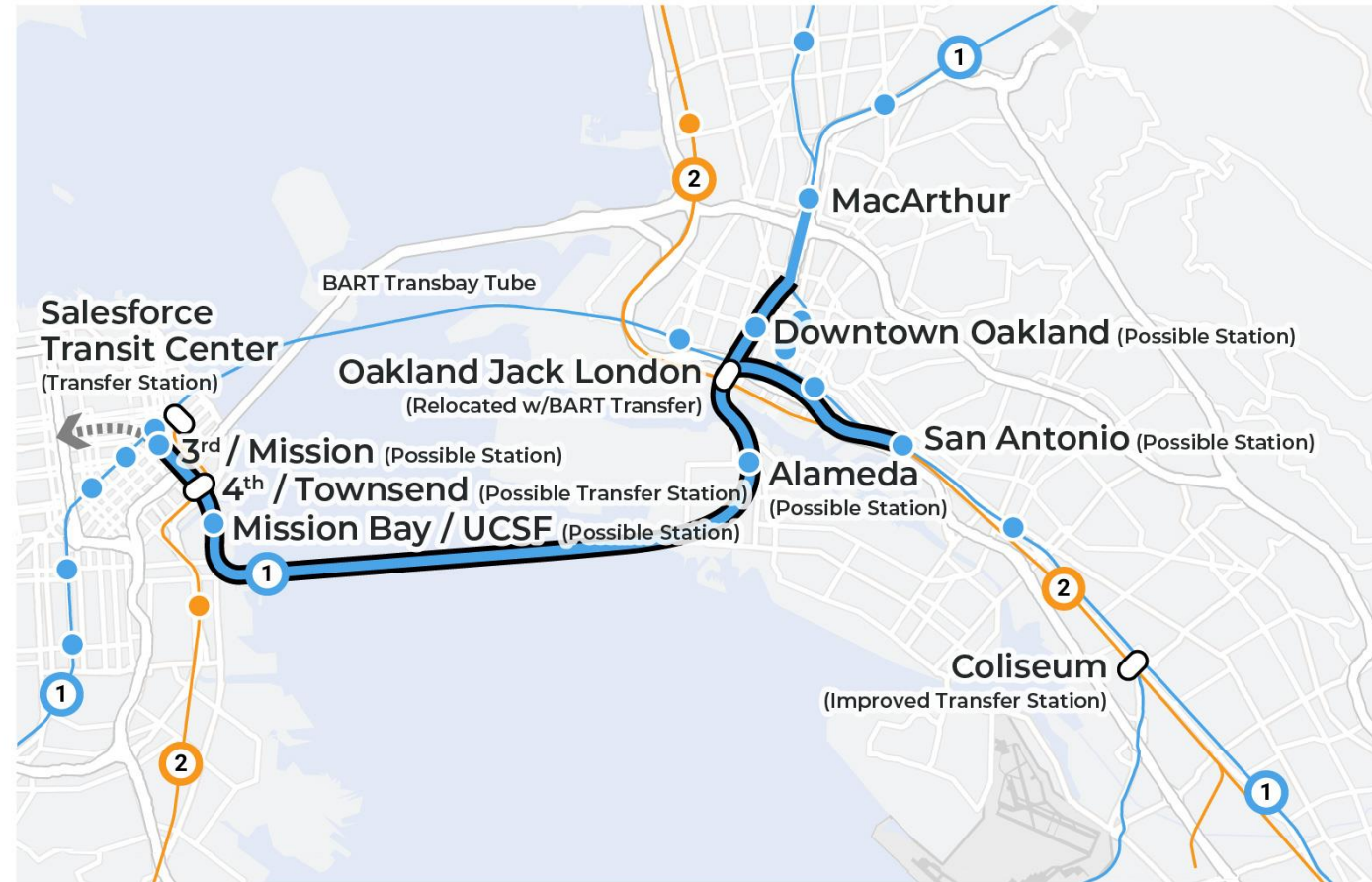
BART 1st & Howard via Alameda



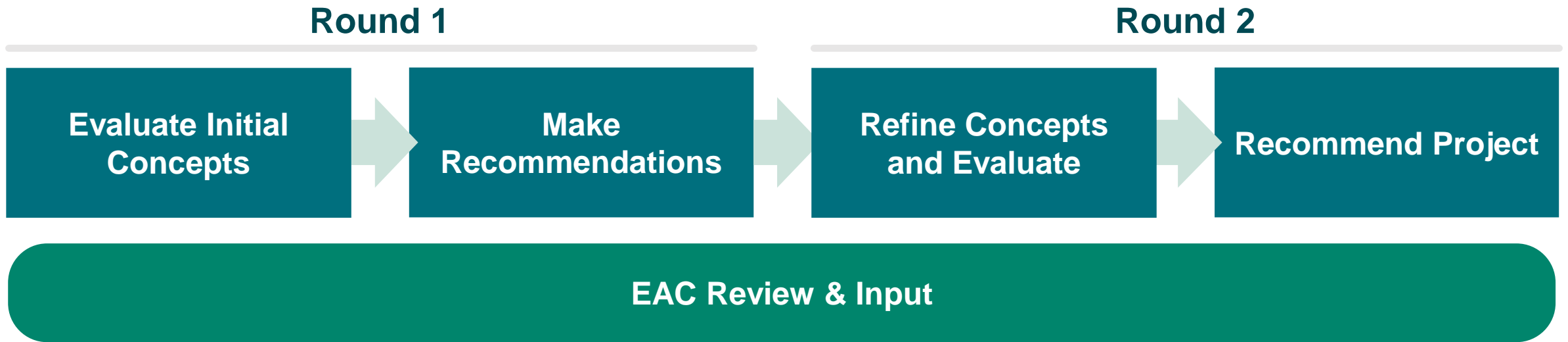
Initial Concept F: BART in Crossing

- Introduced in fall 2022
- In SF, prioritizes serving new markets in Mission Bay, SOMA
- Transfer with Regional Rail at 4th/Townsend
- New connection with Regional Rail at relocated Jack London
- New possible San Antonio (Oakland), Alameda station
- Additional RR improvements TBD

BART 3rd & Mission via Mission Bay and Alameda



Next Steps



Next Steps & EAC Involvement

- Round 1 Evaluation
- Engagement Activities
- Taking equity into continued concept development
 - In-depth community input
 - Design options
 - Reflect on processes and outcomes
- EAC Engagement & Involvement



Break 10 Minutes





AGENDA ITEM D: Environmental Process Overview & Constraints & Opportunities Report

Meet the Team



Don Dean

Environmental Lead,
Link21



Helene Kornblatt

Environmental
Delivery Manager,
HNTB



Rich Walter

Environmental
Manager, ICF



Cathy LaFata

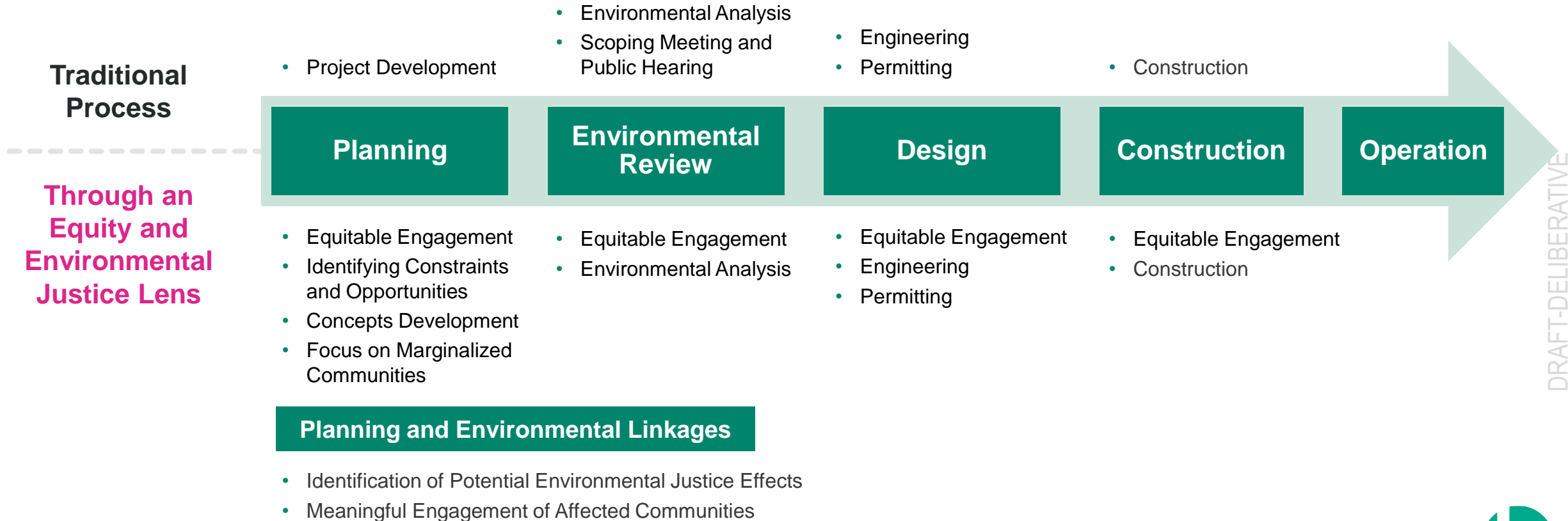
Environmental Justice
and Equity Lead, HDR





Environmental Process: What are we doing differently?

Link21 Environmental Planning: Not Your Traditional Approach



Link21 Environmental Planning: Not Your Traditional Approach

One Team Approach

- Environmental Team coordinating closely with other Program teams at every phase
- Collaborative focus on equity throughout all aspects of the Program

Environmental Stewardship and Sustainability Program Goals

- Reduce emissions
- Conserve resources
- Prepare for climate change

Focus on Quality of Life

- Improve health and safety in communities
- Provide more transportation connections
- Promote community stability through affordable housing, access to jobs, and transit amenities



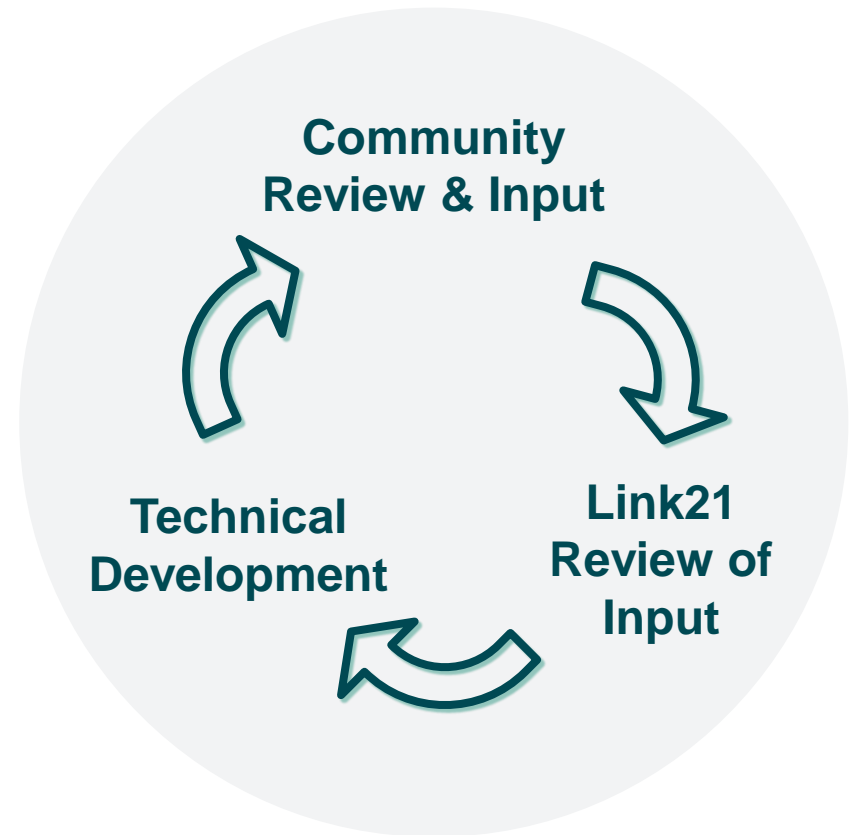
Link21's Path to a Better Future for All

Focus on community engagement and input to help:

- Develop goals and objectives
- Define priority population
- Identify constraints and opportunities
- Inform the identification and evaluation of concepts

Potential solutions developed based on:

- Avoidance and minimization of environmental and social burdens
- Maximizing community benefits
- Prioritizing benefits to marginalized communities



Emphasizing Environmental Justice through Planning and Environmental Linkages

Planning and Environmental Linkages

- Collaborating with planning and design teams
- Identifying environmental effects early, including potential disproportionate effects on EJ communities

Community Engagement

- Providing opportunities to meaningfully engage affected communities

Justice40

- Maintaining objective to deliver at least 40% of project investment and benefits to Priority Populations and EJ communities

*Environmental justice is the **fair treatment** and **meaningful involvement** of all people regardless of race, color, national origin, or income*





Environmental Constraints and Opportunity (ECO) Report

Integrated Environmental Focus

PHASE

1

Environmental Constraints
& Opportunities (ECO)
Identification

PROJECT IDENTIFICATION (2022 – 2024)

- Social and natural constraints and opportunities to support concept development
- Consideration of potential effects on Priority Populations and Environmental Justice Communities
- ECO Report and map book available at Link21Program.org

PHASE

2

Comprehensive
Environmental
Analysis

PROJECT SELECTION (2024 – 2028)

- ECO informs project alternatives
- California Environmental Quality Act (CEQA) & National Environmental Policy Agency (NEPA)
- Comprehensive Environmental Justice evaluation of benefits and burdens on effects on Priority Populations and Environmental Justice Communities



Seeking EAC Input

We are interested in hearing from you.

1. Are there additional **constraints** that you would have us consider or that you think should be a high priority?
2. Are there additional **opportunities** that you would have us consider or that should be a high priority?



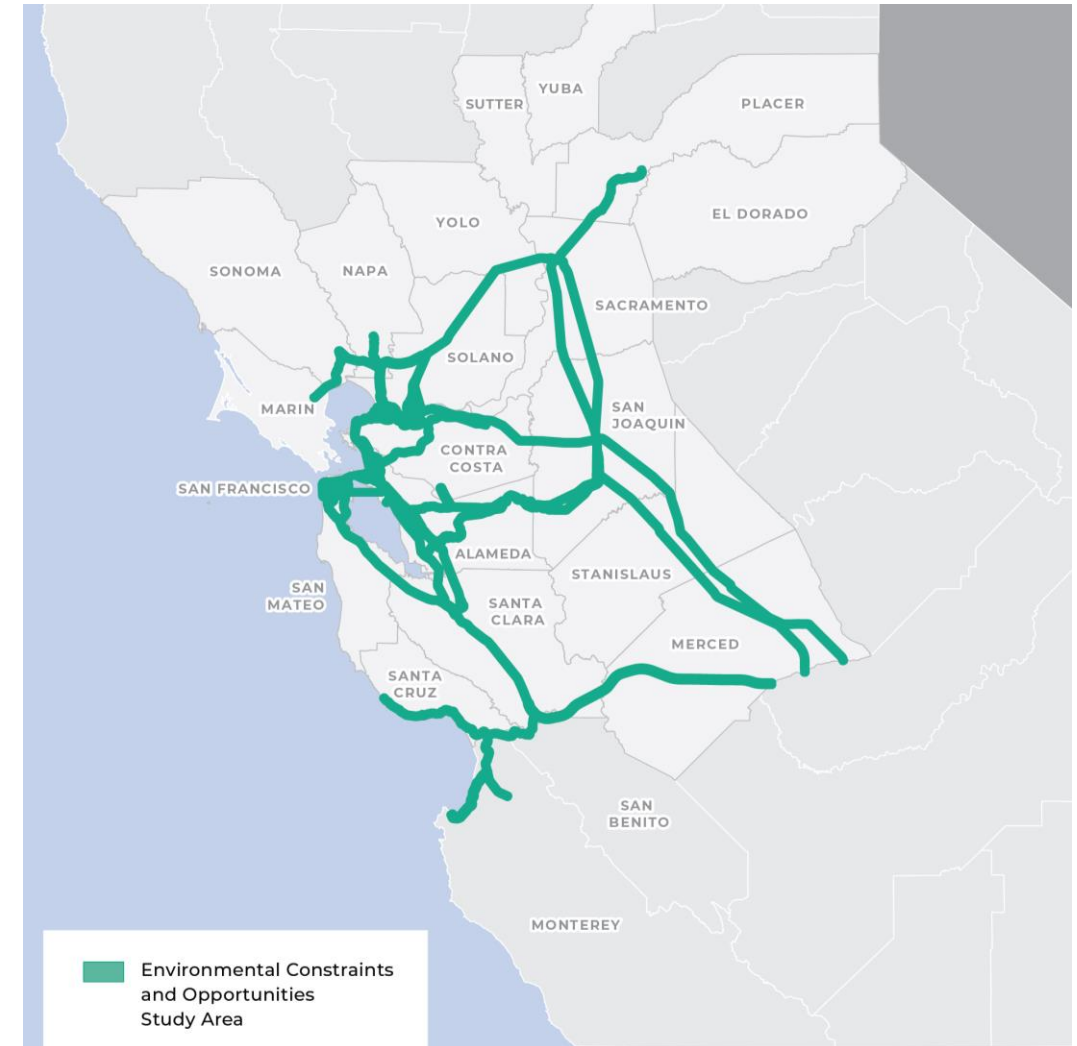
What is the Environmental Constraints and Opportunities (ECO) Report?

What:

- Report encompassing 21-county megaregion
- Identifies constraints/opportunities based on readily available data
- General characterization of critical constraints and opportunities

How data were collected:

- Geospatial data from multiple agencies
- Link21 input: market analysis data, co-creation data, technical work, other



Equity Considerations included in the ECO Work

- Identification of community resources and **priority populations (PP)**.
- Identified constraints to **avoid/minimize** impacts in PP areas.
- Identified opportunities to **improve** transit service to PP areas.
- Considered **co-creation** input when identifying constraints and opportunities
- Prepared preliminary mapping of **environmental justice (EJ)** communities and added to ECO work on project concepts.



What are Constraints?

A **constraint** is a physical or social condition that may limit success of the project. It may:

- impede the ability for Link21 to meet its **vision, goals, and objectives**;
- impede the ability of **Priority Populations (PP)** to experience the **benefits** of Link21;
- result in **substantial impacts on people or the environment** due to infrastructure development; and/or
- substantially **increase costs and schedule** to implement Link21.



Results of ECO Report: Examples of Constraints Identified

Community Resources

- Community centers, schools
- Places of worship
- Local parks

Priority Populations

- History of disproportionate effects due to infrastructure development
- Disproportionate environmental burdens

Land Use/Cultural Resource

- Dense urban infrastructure constrains new rail infrastructure
- Historic, archaeological, and tribal cultural resources

Parks & Open Space

- Local, regional, state, national parks
- Open space,
- Wildlife Refuges

Transportation

- Freight railroad-controlled rights-of-way
- Track location constraints in roadways
- Active marine transportation areas

Biological and Aquatic Resources

- Sensitive biological areas (subject to state and federal resource agency permitting)



Constraints Example: Downtown Oakland:

This sample of the ECO Report Mapbook shows how **constraints** are indicated.



What are Opportunities?

An opportunity is a physical or social condition that may benefit the success of the project.

- Transportation opportunities may:
 - further the Link21 **vision, goals, and objectives** (including promoting equity and livability, transforming the passenger experience, and supporting economic opportunity)
 - increase the ability of **Priority Populations to experience the benefits** of Link21.
- Environmental opportunities may:
 - improve the environmental performance of Link21 in terms of **reducing impacts or promoting benefits** and/or an opportunity that provides for collaboration between Link21 and other efforts that could **advance other environmental priorities**.



Results of ECO Report: Examples of Opportunities Identified

Priority Populations

- Serving historically underserved communities
- Creating linkages between affordable housing and jobs

Targeted Growth Areas

- Megaregion economy and population density presents opportunity for transit
- Targeted growth areas in regional planning

Air Quality/Greenhouse Gases

- Electrification or alternative fuel conversion of existing diesel passenger rail

Transportation

- Serving areas of high projected equity-weighted demand.
- Utilize existing public/private rights-of-way
- Linkages to buses, airports, ferries, trail and bicycle networks and fare integration
- Connection to rail and transit projects by other agencies

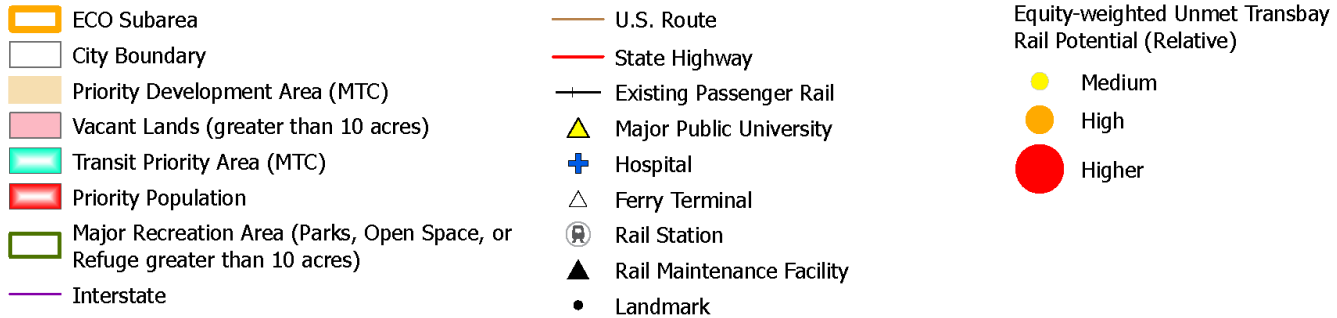
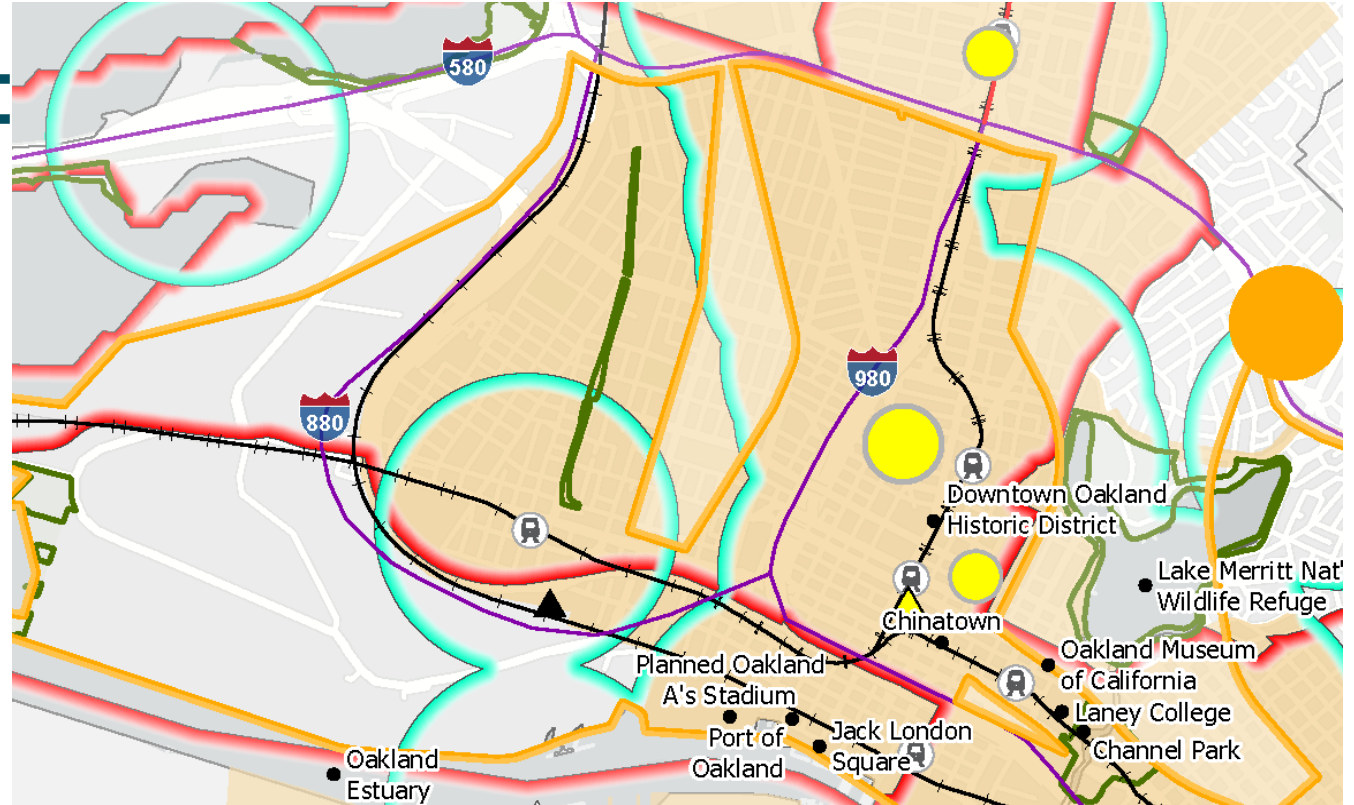
Habitat/Sea Level Rise Adaptation

- Partner with regional habitat conservation and regional adaptation planning/projects



Opportunities Example: Downtown Oakland

This sample of the ECO Report Mapbook shows how **opportunities** are indicated.

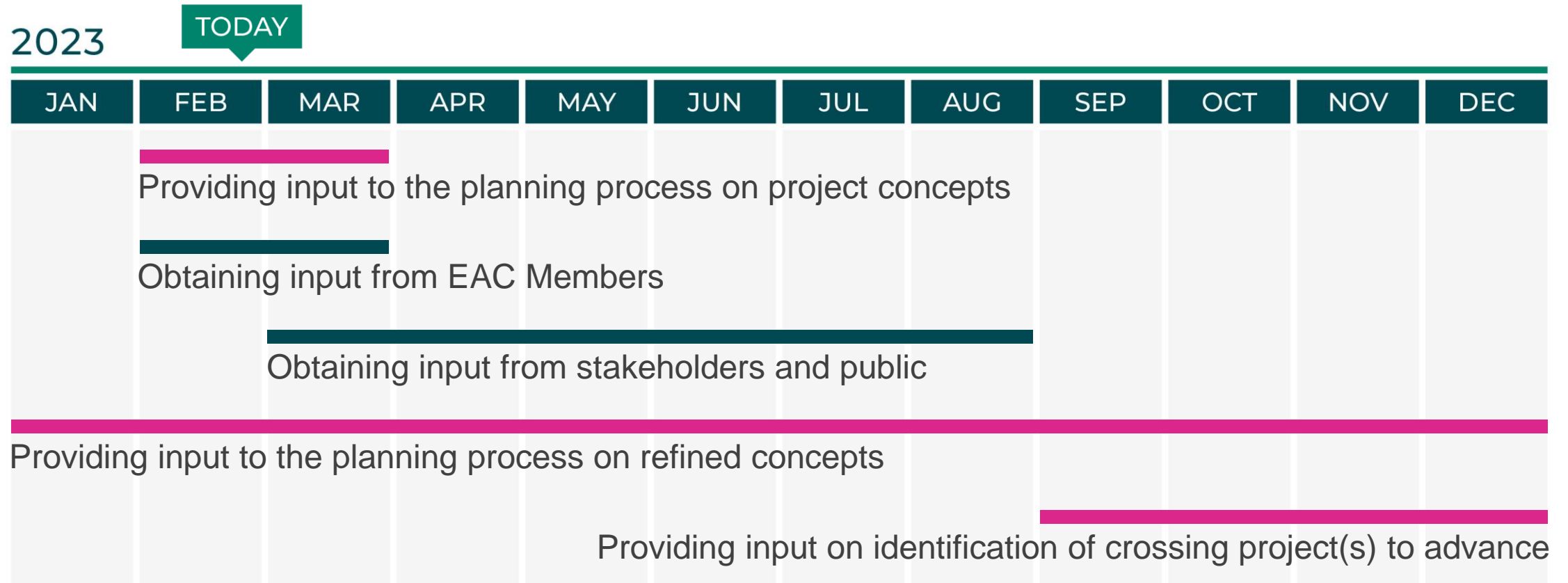


ECO Information In Use for Concept Evaluation

- Identifying constraints for concepts
- Identifying opportunities for concepts
- Identifying potential environmental risks as input to the Preliminary Business Case concerning the Deliverability Case



How and when will we use your input?



Seeking Your Input

We are interested in hearing from you.

1. Are there additional **constraints** or **opportunities** that we should consider?
2. What are the most important constraints or opportunities to be considered and why?
3. Do you suggest any other ways, or information sources, to identify constraints and opportunities in Link21 planning?



Agenda Item F: Public Comment



INSERT TIMER HERE



Agenda Item #5: Next Meeting Date



Agenda Item #6: Adjournment

