Del Mar Bluffs Stabilization Update
Board of Directors Item 12 | January 10, 2020

Del Mar Bluffs (DMB) Stabilization Update Introduction

1. Past Projects
2. Emergency Project
3. Del Mar Bluffs 4
4. Del Mar Bluffs 5
5. Del Mar Bluffs 6
6. Alternative Alignments to move trains off bluffs

Request approval of Executive Director Action on Emergency project
Del Mar Bluffs Past Projects

- 2000 Del Mar Bluffs Geotech Study (NCTD)
- 2001 Emergency repair 8th St. (NCTD) – $1 million
- 2003 Del Mar Bluffs 1 drainage (NCTD) – $4.2 million
- 2007-08 Del Mar Bluffs 2 stabilization with soldier piles (SANDAG) – $5 million
- 2011-12 Del Mar Bluffs 3 stabilization with soldier piles (SANDAG) – $5 million

Past projects cost $14.8m, would be valued today at $29m, after escalation of 5%PA, and stabilized 2,370ft of the bluffs or 0.45 mile. (Cost was $64m/mile)

Bluffs are 1.6 miles long.

Del Mar Bluffs Emergency Project
Location of washouts Repair (○)

Average Nov. Rainfall 1.4 inches
Rainfall Nov. 28 – 29 was 2.5 inches
Overwhelmed Drainage System
DMB Emergency Project
Storm Damage west of 14th Street

November 28-29, 2019

DMB Emergency Project Repairs
14th Street, Dec. 1, 2019

6
DMB Emergency Project Storm Damage
15th Street, December 1, 2019

Water running over bluff exposed the piles that are 3ft. in diameter and 40 to 60 ft. deep with 45 ft. long tie-back anchors. Piles designed to support track in case of bluff face slide or erosion.

DMB Emergency Project Repairs
15th Street  December 14 – 15, 2019
DMB Emergency Project  
Storm Damage & Repairs 15th Street

Storm Damage Dec 1, 2019  
Repaired by sunset on Dec 15th

Del Mar Bluffs Phase 4

Improvements
- Repair existing drainage structures
- Replace piles supporting sea walls

Project Budget
- $5.78 million

Status
- Construction contract award January 2020
- Start on Site February 2020 for 147 days
Del Mar Bluffs Phase 5

**Design starts January 2020**
- Reevaluate track stabilization needs for extending design life
- Review past assumptions on bluff retreat
- Reevaluate drainage capacity and needs

**Scope will include**
- More piles and tie backs
- Adding ground beam at top of piles
- Installing new drainage structures

**Design Estimate**
- $3.4 million and funded

**Construction Estimate**
- ROM $24 million, unfunded

Del Mar Bluffs Phase 6

**Project Scope** - Stabilize face of bluff to slow retreat
- Bluff toe protection
- Stabilize bluff face
- Piling and drainage
- Mitigation may require coastal access improvements
- A coastal access study with City

**Rough order of magnitude estimates**
- Design: $7 million
- Construction: $60 to $70 million
**Bluff Alternative Alignments**
**Advanced Planning Preliminary Concepts**

**Past studies**
- In 2017 we studied 5 alignments from Del Mar Fairgrounds to Sorrento Valley

**Next Steps**
- Eventually will need double track
- Focus on increasing speed to reduce travel time
- Reduce alternatives

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**Emergency Project**
**Executive Director’s Action**

On 11/30/2019 the LOSSAN mainline track was placed out of service due to storm damage to make repairs

The Executive Director;
- Awarded a not to exceed construction contract to Mid Coast Transit Contractors for $500,000 to repair the bluffs
- Established an emergency project budget per attachment 4. The balance of the budget will be used to take preventative measures to further stabilize the bluffs
Board Action: **Approve**

- We request that the Board of Directors ratify the Executive Director’s action per Board Policy No. 017 authorizing emergency repairs as detailed in Attachment 3.

- The Executive Director recommends the Board of Directors approve an amendment to the FY 2020 Program Budget to: Create a new Capital Improvement Program (CIP) project to establish the Del Mar Bluffs Emergency Project (CIP Project No. 1147300) per Attachment 4.

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**Bluffs Stabilization Program**

**DMB Emergency Project: 15th-14th Street in 2019**

Del Mar Bluffs 2 and 3 – installed 230 piles and made drainage improvements
REGIONAL BIKE PLAN
EARLY ACTION PROGRAM
Board of Directors Item 13 | January 10, 2020

PROGRAM HISTORY

• **2010** Board of Directors approved Regional Bike Plan
• **2011, 2015, and 2019** - Regional Bike Plan incorporated in the Regional Transportation Plan
• **2013** Bike Early Action Program adopted
• **2013 to Present** - Implementation
  – Planning and community outreach
  – Environmental clearance
  – Design and construction
REGIONAL BIKE PLAN - GOALS

- Significantly increase levels of biking throughout the San Diego region
- Improve bicycling safety
- Encourage the development of Complete Streets
- Support reductions in greenhouse gas emissions
- Increase community support for bicycling

DESIGN PRINCIPLES

SAFER “LOW STRESS” STREETS

- Safer movement of people
- Connected network
- Everyday people, everyday trips
- Separated bikeways
- Traffic calming to reduce speeds
- Challenges in urban areas due to limited space and competing uses
**TransNet Extension**

**Flow of Funds – FY 2009 to FY 2048**

**TransNet Extension Ordinance:**

“A total of two percent of the total annual revenues available (an estimated $280 million) will be allocated to the Bicycle, Pedestrian and Neighborhood Safety Program to provide funding for bikeway facilities and connectivity improvements, pedestrian and walkable community programs, bicycle and pedestrian safety projects and programs, and traffic calming projects.”
EAP STATUS

70 OF 77 MILES OPEN OR UNDER DEVELOPMENT

PROJECT FEATURES

BICYCLE/PEDESTRIAN

- Separated bikeways
- Neighborhood traffic circles, traffic calming
- High visibility crosswalks, ADA improvements
- Signal improvements
- Wayfinding signage
PROJECT FEATURES

CAPITAL IMPROVEMENTS
• Structures, walls, bridges
• Drainage and stormwater improvements
• Utility conflicts and relocations
• Upgrading to current standards
• Roadway
  (curb and gutter, repaving)

PROJECT EVALUATION AND MONITORING
BAYSHORE BIKEWAY SEGMENTS 4B AND 5

<table>
<thead>
<tr>
<th></th>
<th>Pre-Project</th>
<th>Post-4A</th>
<th>Post-4B &amp; 5</th>
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<tbody>
<tr>
<td>Thursday Bike Counts</td>
<td>135</td>
<td>333</td>
<td>351</td>
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<tr>
<td>Sunday Bike Counts</td>
<td>246</td>
<td>600</td>
<td>661</td>
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BIKE EAP – PRIORITY FOR FINANCING

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<thead>
<tr>
<th>Project</th>
<th>Priority for Financing</th>
<th>Communities Served</th>
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<tr>
<td>Bayshore Bikeway: Barrio Logan</td>
<td>A</td>
<td>Barrio Logan, Downtown, 32nd Street, Naval Station</td>
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<tr>
<td>Border to Bayshore Bikeway</td>
<td>A</td>
<td>Imperial Beach, San Ysidro</td>
</tr>
<tr>
<td>Coastal Rail Trail Encinitas: E Street</td>
<td>A</td>
<td>Encinitas</td>
</tr>
<tr>
<td>Coastal Rail Trail Encinitas: Serra</td>
<td>A</td>
<td>Encinitas</td>
</tr>
<tr>
<td>Coastal Rail Trail, Vista (portion)</td>
<td>A</td>
<td>Vista</td>
</tr>
<tr>
<td>North Park/Mid-City Bikeways: University</td>
<td>A</td>
<td>City Heights, Rolando, La Mesa</td>
</tr>
<tr>
<td>Uptown Bikeways: Eastern Hillcrest</td>
<td>A</td>
<td>Hillcrest</td>
</tr>
<tr>
<td>Uptown Bikeways: Park Boulevard</td>
<td>A</td>
<td>Hillcrest</td>
</tr>
<tr>
<td>Parkridge Drive Bikeway</td>
<td>B</td>
<td>Downtown, North Park</td>
</tr>
<tr>
<td>Central Avenue Bikeway</td>
<td>B</td>
<td>Kensington, Normal Heights, City Heights</td>
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<tr>
<td>Inland Rail Trail: Vista (remaining gap</td>
<td>B</td>
<td>Vista</td>
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<tr>
<td>San Diego River Trail: Stadium Segment</td>
<td>C</td>
<td>Mission Valley, SODI West</td>
</tr>
<tr>
<td>Bayshore Bikeway: 8B Main Street to Palomar</td>
<td>C</td>
<td>Chula Vista</td>
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<tr>
<td>San Diego River Trail: Carousel</td>
<td>C</td>
<td>Santee</td>
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<td>Uptown Bikeways: Mission Hills</td>
<td>C</td>
<td>Mission Hills</td>
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<tr>
<td>Central Mobility Bikeway (Coastal Rail</td>
<td>C</td>
<td>Downtown, Little Italy, Middletown, Old Town</td>
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<tr>
<td>El Prado Cross Park (Balboa Park)</td>
<td>C</td>
<td>Bankers Hill, Hillcrest, Balboa Park</td>
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<tr>
<td>North Park/Mid-City Bikeways: Monroe</td>
<td>C</td>
<td>Kensington, Talmadge</td>
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<tr>
<td>Park Blvd (Upas to Village Pl)</td>
<td>C</td>
<td>Balboa Park, Hillcrest</td>
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EAP FUNDING

- $279 million in approved FY2020
  SANDAG Program Budget
  - $171 million from TransNet Bicycle, Pedestrian, Neighborhood Safety
  - $ 48 million from State Active Transportation Program
  - $ 60 million other active transportation funds

- $123 million spent to date
- $77 million - $117 million needed over next 12-18 months
San Diego County Regional Transportation Commission

TransNet Proposed 2020 Bond Issuance:
New Debt to Support Completion of TransNet Regional Bikeway Program

Board of Directors Item 14 | January 10, 2020

2020 Bond New Debt Financing Team

- San Diego County Regional Transportation Commission
  - Hasan Ikhrata, Executive Director
  - Andre Douzdjian, Chief Financial Officer
  - John Kirk, General Counsel
  - Ray Major, Chief Economist
  - Jose Nuncio, TransNet Department Director
  - Linda Culp, Principal Regional Planner

- Financial Advisors, Public Financial Management
  - Peter Shellenberger, Managing Director
  - Darren Hodge, Director

- Bond and Disclosure Counsel, Norton Rose Fulbright US LLP
  - Victor Hsu, Partner

- Senior Underwriter, Goldman Sachs
  - Ruth Pan, Vice President
2020 New Debt Presentation

1. Why we are issuing new debt
2. Describe main components of debt issuance
3. Review various draft bond documents

Market Update

10-yr Treasury Rate (Taxable Rate) compared to 10-yr AAA MMD Rate (Tax-Exempt Rate)
TransNet Extension
Flow of Funds – FY 2009 to FY 2048

Net Annual Revenues

- Major Corridor Capital Projects: 38%
- Local Streets and Roads Formula Funds: 29%
- Environmental Mitigation Program (EMP): 6%
- Transit Services: 17%
- Smart Growth Incentive Program: 2%
- New Major Corridor Transit Operations: 8%
- Admin: ITOC; and Bicycle, Pedestrian, Neighborhood Safety*: 3%

*S is off the top; other programs shown as percentage of net revenues.
Note: Chart is for illustrative purposes to show relative size of TransNet sub-programs, sum of nominal percentages do not total 100.

SANDAG Administration: 1%
ITOC Activities (with CPI adjustment): $422,485 (Annual)
Bicycle, Pedestrian, and Neighborhood Safety Program: 2%
Credit Rating Agency Reviews

- Current high credit ratings on SANDAG debt program
- Current ratings issued on 2020 New Debt
  - Standard & Poor’s: AAA
  - Fitch: AAA
Financial Advisor Memo
(Attachment 1)

- Market Update
- 2020 New Debt Structure
- Financial Considerations

Resolution
(Attachment 2)

- The Resolution authorizes issuance of the 2020 New Debt and approves the following documents
  - Official Statement
  - Ninth Supplemental Indenture
  - Bond Purchase Agreement
  - Continuing Disclosure Agreement

- The Resolution also approves other actions and matters relating to the 2020 New Debt
Ninth Supplemental Indenture  
(Attachment 3)

- Supplements the Master Indenture relating to SANDAG’s senior revenue bonds
- Sets forth repayment and redemption provisions with respect to the 2020 New Debt
- Directs proceeds for deposit into accounts

Preliminary Official Statement  
(Attachment 4)

- The Preliminary Official Statement is used to sell the bonds and disclose all material information to the potential buyers of the bonds
Bond Purchase Agreement
(Attachment 5)

- Agreement by underwriters to purchase 2020 New Debt from SANDAG
- Sets forth certain representations of SANDAG
- Identifies documents, opinions, and other requirements necessary to close the financing

Continuing Disclosure Agreement
(Attachment 6)

- SANDAG commitment to provide ongoing financial and operating information to the marketplace after the initial issuance of the 2020 New Debt in compliance with SEC rules
Catalogue of Blanks
(Attachment 7)

- Identifies items still pending in the draft bond documents

2020 New Debt Costs of Issuance
(Attachment 8)

- Costs determined through competitive procurement process or negotiations
- Negotiated competitive costs for underwriting fees, similar or lower than comparable CA issuances
  - Est. Costs of Issuance $250K
  - Underwriter Cost $150K
  - Est. Total $400K
- Estimated issuance costs 0.44% of par amount of 2020 New Debt
Next Steps

- **Week of January 13, 2020**
  Post preliminary official statement

- **Week of January 20, 2020**
  Investor presentations

- **Week of January 27, 2020**
  Anticipated pricing of bonds

- **Week of February 17, 2020**
  Anticipated closing of bonds

Recommendation

The Board of Directors, acting as the San Diego County Regional Transportation Commission (RTC), is asked to adopt Resolution No. RTC 2020-15, authorizing the issuance of up to $90 million of fixed-rate tax-exempt bonds to support completion of the TransNet Regional Bikeway Early Action Program.
2021 Regional Plan Status Update
Putting the Pieces Together
Board of Directors Item 15 - January 10, 2020

Background

- **February 2019**: Board approved action plan to develop new vision for 2021 Regional Plan
- **April 2019**: 5 Big Moves presented as key strategies to develop bold new vision
- **July 2019**: Update on 5 Big Moves and Board prioritized four key Complete Corridors to include in the vision
- **September 2019**: Board approved $593.4 million to advance planning for 12 Complete Corridors and a Central Mobility Hub with airport connectivity in addition to other regional needs and programs related to the 5 Big Moves
- **October 2019**: Board adopted Federal Regional Transportation Plan
A Refresher on the 5 Big Moves

- **NEXT OS**
  - Enabling Technology

- **COMPLETE CORRIDORS**
  - Smart, connected, and multimodal transportation network

- **FLEXIBLE FLEETS**
  - Shared mobility services that complement transit

- **TRANSIT LEAP**
  - High speed and frequent public transportation

- **MOBILITY HUBS**
  - Transfer points at activity centers

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Data-Driven Planning

Using empirical data to drive our vision

- **Population**
  - 2050: 4.0 million
  - 2019: 3.4 million (20% increase)

- **Vehicle Miles Traveled**
  - 2050: 103 million
  - 2018: 84 million (24% increase)

- 64% of trips are considered “mandatory”
- 1 of 3 trips are for work or work related
- 12.2 mile average commute to work
Where People Live and Work

Connecting Population and Employment Centers

- Major Employment Centers
Non-Work Trips

Data Source: Teralytics

Border (Person Trips)

Data Source: Teralytics
Commercial Trips (Cross Border)

Data Source: StreetLight

Corridor Types (Highway)

Regional and Interregional Corridors
Urban Corridors
Rural Corridors
### Regional and Interregional Corridors

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<thead>
<tr>
<th>Trip Distance</th>
<th>Percentage</th>
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<tr>
<td>&gt;20 miles</td>
<td>(60%)</td>
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<tr>
<td>5-20 miles</td>
<td>(30%)</td>
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<tr>
<td>&lt;5 miles</td>
<td>(10%)</td>
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**Peak Period Performance**

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<thead>
<tr>
<th>Performance</th>
<th>Approx.</th>
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<tbody>
<tr>
<td>Vehicle Miles Traveled (Freeway)</td>
<td>2/3</td>
</tr>
<tr>
<td>Delay (Freeway)</td>
<td>2/3</td>
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### Urban Corridors

<table>
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<th>Trip Distance</th>
<th>Percentage</th>
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<tr>
<td>&gt;20 miles</td>
<td>(10%)</td>
</tr>
<tr>
<td>5-20 miles</td>
<td>(80%)</td>
</tr>
<tr>
<td>&lt;5 miles</td>
<td>(10%)</td>
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**Peak Period Performance**

<table>
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<th>Approx.</th>
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<tr>
<td>Vehicle Miles Traveled (Freeway)</td>
<td>1/3</td>
</tr>
<tr>
<td>Delay (Freeway)</td>
<td>1/3</td>
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Rural Corridors

Trip Distance
- >20 miles (10%)
- 5-20 miles (80%)
- <5 miles (10%)

Peak Period Performance
- Vehicle Miles Traveled (Freeway): Approx. <5%
- Delay (Freeway): Approx. <5%

Transit Travel Time Analysis

I-5 Oceanside/Downtown
- a.m. northbound from Oceanside: 54 min
- p.m. northbound from Oceanside: 65 min

SR 78 Escondido/Oceanside
- a.m. southbound from Escondido: 20 min
- p.m. southbound from Escondido: 26 min

I-15 Escondido/Downtown
- a.m. northbound from I-15: 69 min
- p.m. northbound from I-15: 71 min

I-5 San Ysidro/Downtown
- a.m. southbound from San Ysidro: 23 min
- p.m. southbound from San Ysidro: 30 min

I-8 El Cajon/Downtown
- a.m. northbound from I-8: 26 min
- p.m. northbound from I-8: 33 min

SR 94 El Cajon/Downtown
- a.m. southbound from SR 94: 51 min
- p.m. southbound from SR 94: 53 min
### Agency Interviews and Surveys

**Technology and Data Assessment**

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<tr>
<td><strong>58%</strong></td>
<td>Data collection and analysis is manual</td>
</tr>
<tr>
<td><strong>95%</strong></td>
<td>Data sharing is ad-hoc and manual</td>
</tr>
<tr>
<td><strong>58%</strong></td>
<td>Technology solutions are not integrated</td>
</tr>
<tr>
<td><strong>63%</strong></td>
<td>Performance measures are evaluated based on historical data</td>
</tr>
<tr>
<td><strong>69%</strong></td>
<td>Policies do not respond to real-time conditions</td>
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**19 Surveys**

**7 Interviews**

### Industry Engagement

- Industry interviews
- Vision Advisory Panel provides expert input on emerging technology solutions

Panelists represent:
- Wireless communications
- Connected vehicles
- Zero emission vehicles
- Emerging mobility services
- Data analytics
Education and Outreach

- 135+ presentations regionwide
  - Member agencies, professional associations, community groups, etc.
- 5 Big Moves webinar series
- Coordination meetings with partner transportation agencies
- Ongoing Community Based Organization (CBO) outreach
- Social media posts and emails
- Vision Lab Open Hours and Open Houses

Stakeholder Workshops

- October 2019
  - SANDAG Working Group Forum
  - Tribal Transportation Workshop
- November 2019
  - Employer Focus Group
- December 2019
  - Crossborder Mobility Workshop
- Upcoming in 2020
  - Second Employer Focus Group
Resident Insights

Transit doesn’t work for many people today

**safety and security**

“I wouldn’t let my kids take public transit here because of safety and security concerns.”

“Safety is a huge factor in riding public transit for me and as a woman I don’t feel safe riding alone.”

“I wouldn’t let my kids take public transit here because of safety and security concerns.”

“I wouldn’t let my kids take public transit here because of safety and security concerns.”

“I wish I could take public transit, but it takes a long time and there is a lack of frequency options, and a last mile issue.”

**reliability and speed**

“The bus is not reliable and takes planning. Before I had a car, I would take the bus – I had to leave super early and really plan ahead.”

“I have to walk home from work at 11p.m. because it’s too late for the buses.”

**incomplete transit network**

“I like riding my bike at the beach, but I don’t feel safe on the roads.”

“I’m surprised there’s no transit to the airport... We need airport connectivity.”

“I don’t have a car, so I take the bus and COASTER to get to Encinitas for work. I leave Chula Vista at 6 a.m. for my 10 a.m. shift.”

**inadequate service for transit dependent**

“I have to walk home from work at 11p.m. because it’s too late for the buses.”
Resident Insights

lack of school bus service

“We used to have buses in middle school, but not anymore. People getting to school creates most of the traffic.”

“Trying to get across Mira Mesa Blvd. after picking up my daughter from school can take up to 20 minutes.”

“It would be great if you could fix the traffic lights because the ones near the school get backed up for miles.”

unsafe biking conditions

“I like riding my bike at the beach, but I don’t feel safe on the roads.”

“Biking outside of the neighborhood is unsafe. People text and drive and go into the bike lanes a lot.”

micromobility infrastructure and regulations needed

“I like the scooters and bikes, especially around colleges and schools. If I had some dedicated lanes to take a scooter to school, I wouldn’t be driving.”

“Scooters should have their own lanes and be regulated, or they should go altogether.”

people plan their lives around traffic

“The traffic in Sorrento Valley is so bad, I would never take a job there.”

“I plan my day around traffic patterns.”

Next Steps

• Regional Plan Board presentation topics (January – March 2020):
  – Our Local Economy
  – Big Data – Harnessing the Benefits of Data-Powered Governance
  – Overview of Air Quality, Vehicle Miles Traveled, and Greenhouse Gas Emissions Requirements
  – Primer on Modeling
  – Environmental Impact Reports
  – Spring 2020: Presentation of the Vision for the 2021 Regional Plan