The Challenge:
Regional EV adoption is outpacing infrastructure investment. The San Diego region has a 2025 projected gap of thousands of public chargers.
Growth of the San Diego County EV Market

From Q4 2017–Q3 2018, EVs were 6.1% of new light-duty vehicle sales

Growth in Number of Level 2 EV Chargers and Estimated Need in 2025 for San Diego County

Source: US Department of Energy, AFDC (May 2019) and CEC EV Infrastructure Projection Tool (March 2018)
Growth in Number of DC Fast Chargers and Estimated Need in 2025 for San Diego County

2020 Program:
Supporting programs include:

SANDAG Charging Program

2015 Regional Plan Actions

- Establish incentive program for EV chargers
- Commit $30 million from 2020-2050
- Support future Regional Plan development
- Reduce GHG emissions from passenger vehicles

Caltrans SB1 Planning Grant

- $600,000 grant over 2018-2020
- Phase 1 – best practices and program coordination (2018)
- Phase 2 – design program framework (2019)
- Phase 3 – program build out (2019-2020)

sandag.org/EVChargingProgram

Source: US Department of Energy, AFDC (May 2019) and CEC EV Infrastructure Projection Tool (March 2018)
Public Chargers in the Region

Source: Plugshare (May 2019)

Opportunity: California EV Infrastructure Project

- CALeVIP is a mechanism to provide targeted EV charging infrastructure incentives in California
  - Regional EV infrastructure investment
  - Expert program implementation and administration at a reduced cost
  - Projects are designed to be responsive to regional and customer needs
  - Assures full implementation and reporting through online application and tools
Estimated Partner Budgets and Scope

- Implement 2015 Regional Plan and SCS
- Level 2 Chargers
- Budget est. $1 million/year until 2050

- Implement County Climate Action Plan
- Level 2 Chargers
- Budget est. $500,000/year up until 2030

- Implement Executive Order B-48-18 targets for EV chargers
- Level 2 and DC Fast Chargers
- Budget est. ranges from $10-23 million total allocation

Next Steps

- Board consideration May 24
- CEC selections this summer
- Seek additional partnership opportunities with SDG&E, Electrify America, EVgo and other charging providers
- Return at the end of 2019 with updates and/or partner agreements
Recommendation

The Transportation Committee is asked to recommend that the Board of Directors adopt Resolution No. 2019-17, establishing the framework and agreement for a joint electric vehicle charging incentive program with the California Energy Commission, County Air Pollution Control District, and Center for Sustainable Energy.
Del Mar Bluffs – Trench Concept

PROJECT AREA / TRENCH LIMITS

- Transition into Trench (0.3 mi)
- Full Depth Trench (0.7 mi)
- Transition out of Trench (0.4 mi)
Del Mar Bluffs – Trench Concept

TYPICAL SECTION

Trench Section
Width = 55’
Depth = 26’ (max)

Protective railing
Bluff revegetation
Toe protection

Del Mar Bluffs – Trench Concept

BLUFF PROTECTION & WALK PATH

Drop Inlet
Recreational Path
Bluff revegetation
Drain outlet
Drain ditch intercept

(Beach)
Del Mar Bluffs – Trench Concept

POTENTIAL PED XING POINTS

Safe overcrossings are possible with a trench alternative

Del Mar Bluffs – Trench Concept

TYPICAL BRIDGE / ADA ACCESS

End of street

Pedestrian bridge

ADA ramp from street to bridge

ADA ramp from bridge to beach

(RailPros)
Del Mar Bluffs – Trench Concept
TYPICAL LINEAR PARK SECTION

Potential linear park, up to 200 feet without ventilation

Del Mar Bluffs – Trench Concept
LINEAR PARK RENDERING

BEFORE…
Del Mar Bluffs – Trench Concept
LINEAR PARK RENDERING

AFTER

Del Mar Bluffs – Trench Concept
SOUTH END PED BRIDGE

- Existing trails from Camino Del Mar
- Pedestrian bridge
- ADA Ramp with Staircase
- Existing trails down to beach

(Beach)
Del Mar Bluffs – Trench Concept
CONSTRUCTION PHASING

PHASE 1
Install permanent east wall soldier piling

Permanent wall
**Del Mar Bluffs – Trench Concept**

**CONSTRUCTION PHASING**

**PHASE 2**

Construct new shoofly* track and transfer operations to shoofly

*NOTE: A shoofly track is a temporary track to keep trains running during construction.

**PHASE 3**

Install permanent west wall and temporary wall. Construct new MT1 Track and transfer operations to new MT1
Del Mar Bluffs – Trench Concept
CONSTRUCTION PHASING

PHASE 4

Remove temporary shoring wall, excavate to final grade, and set new MT2 Track

Del Mar Bluffs – Trench Concept
COST ESTIMATE

Project cost escalated through 2025:

$300 million to $400 million

Cost will vary depending on inclusion and extent of various features such as:
• Linear park
• Pedestrian access bridges
• Beach access points
Del Mar Bluffs – Trench Concept

SUMMARY

Trench Concept Summary

• 1.3 miles of trench from Coast Blvd to N. Torrey Pines Bridge (0.7 miles at full depth)
• 55’ wide trench with double track and maintenance access
• Bluff slope revegetation and toe stabilization
• New storm drain conveyance system
• Safe community access along bluffs and to beach

QUESTIONS?
2018 Commute Behavior Survey

Background Information

• Stated preference survey conducted every four years
• Survey used for TDM programming, planning, and transportation modeling
• Survey topics
  – Commuter travel profiles
  – Transportation preferences
  – Commuter benefits
  – Shared mobility use
  – Park & Rides
  – Technology
Methodology

4,337 commuters in study area
- 68% San Diego residents
- 32% Western Riverside residents

Mixed-Method approach
- Data collection via phone and online
- English and Spanish

Overall margin of error is ± 1.6%
Commute Behavior

Primary Commute Mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>% Respondents That Commute Outside Home</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive alone</td>
<td>83.9%</td>
</tr>
<tr>
<td>Public Transit</td>
<td>6.0%</td>
</tr>
<tr>
<td>Carpool</td>
<td>5.1%</td>
</tr>
<tr>
<td>Bike</td>
<td>1.4%</td>
</tr>
<tr>
<td>Motorcycle</td>
<td>0.9%</td>
</tr>
<tr>
<td>Walk</td>
<td>0.8%</td>
</tr>
<tr>
<td>Vanpool</td>
<td>0.7%</td>
</tr>
<tr>
<td>On-Demand Rideshare*</td>
<td>0.6%</td>
</tr>
<tr>
<td>Other Mode</td>
<td>0.5%</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

*About half indicated that they use a pooled service like UberPOOL or Lyft’s Shared service
Telework

- Work from home: 12%
- Commute outside home: 88%

Intraregional Commuter Travel

- 97% of commuters who live in San Diego County work in San Diego County
- 56% of commuters who live in Western Riverside County work in Western Riverside County
Interregional Commuter Travel

San Diego Commuter to San Diego Commuter:
- Distance: 16 miles
- Travel Time: 29 minutes

Western Riverside to San Diego Commuter:
- Distance: 52 miles
- Travel Time: 72 minutes

Drive Alone vs. All Other Modes:
- San Diego Commuter:
  - Drive Alone: 84%
  - All Other Modes: 16%
- Western Riverside to San Diego Commuter:
  - Drive Alone: 77%
  - All Other Modes: 23%
## Reason for Choosing Commute Mode

<table>
<thead>
<tr>
<th>Drive Alone</th>
<th>All Other Modes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>Cost/Cheaper</td>
</tr>
<tr>
<td>Time/Work</td>
<td>Convenience</td>
</tr>
<tr>
<td>Schedule</td>
<td>Avoid Traffic</td>
</tr>
<tr>
<td>Fastest Option</td>
<td></td>
</tr>
</tbody>
</table>

## Alternative Transportation

![Alternative Transportation Image](Image)
### Ranked Interest in Alternative Transportation Modes

<table>
<thead>
<tr>
<th>Mode</th>
<th>Interest in Alternative Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Transit</td>
<td>32%</td>
</tr>
<tr>
<td>On-Demand Rideshare</td>
<td>26%</td>
</tr>
<tr>
<td>Carpool/Vanpool</td>
<td>23%</td>
</tr>
<tr>
<td>Bike/Walk</td>
<td>10%</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>9%</td>
</tr>
</tbody>
</table>

% Commuters that Drive Alone

### Primary Factors that Influence Travel Choice

- Competitive travel time
- Supportive infrastructure
- Easy and convenient access to and from transit
- Monetary incentives
- Guaranteed ride home in case of an emergency
Commuter Benefits

Employer Benefits Offered

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Yes, employer offers</th>
<th>No, not offered</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-site facilities for employees that walk or bike</td>
<td>29%</td>
<td>65%</td>
<td>7%</td>
</tr>
<tr>
<td>Priority parking for carpool or vanpool</td>
<td>18%</td>
<td>75%</td>
<td>8%</td>
</tr>
<tr>
<td>Free or discounted transit passes</td>
<td>14%</td>
<td>76%</td>
<td>10%</td>
</tr>
<tr>
<td>Pre-tax benefits</td>
<td>11%</td>
<td>77%</td>
<td>13%</td>
</tr>
<tr>
<td>Cash or incentives for not driving alone to work</td>
<td>10%</td>
<td>80%</td>
<td>9%</td>
</tr>
<tr>
<td>Employer-provided shuttles</td>
<td>9%</td>
<td>84%</td>
<td>7%</td>
</tr>
<tr>
<td>Guaranteed ride home</td>
<td>3%</td>
<td>82%</td>
<td>10%</td>
</tr>
</tbody>
</table>

[Legend: Yes, employer offers, No, not offered, Don't know]
Parking Costs at Work

- Parking is free at work: 88%
- Parking is not free: 11%
- Prefer not to answer: 1%

Transportation Information
### Smart Phone Use

![Bar chart showing the percentage of respondents that commute outside their home and use smart phones by age group and region.](chart)

- **Commuters that Reside in San Diego County**
- **Commuters that Reside in Western Riverside County**

### Popular Transportation Uses of Smart Phone

- **Get driving directions**: 97%
- **Check traffic conditions**: 90%
- **Request a ride from an on-demand rideshare service**: 71%
- **Check transit schedules or options**: 51%
- **Request motorist aid assistance**: 44%
- **Purchase a transit pass or pay fare**: 27%

% Respondents Who Commute Outside Home and Use Smart Phone
Interest in Mobility as a Service (MaaS)

Key Takeaways

• Convenience and a competitive travel times are main factors in commute choices
• Improve reliability and speed of service to help make alternative travel options more attractive
• Employer-led initiatives (parking and incentives) critical in encouraging alternative options
• Continue to explore partnerships with technology partners and opportunities for mobility hub pilots
North Coast Corridor Program: Status Update

Transportation Committee Item 9 | May 17, 2019

Program Status

Completed: $508 M
Under Construction: $901 M
Shovel Ready: $273 M
In Design/Environmental: $590 M
Phase 1 – Corridor Segments

<table>
<thead>
<tr>
<th>SEGMENT</th>
<th>CONSTRUCTION CAPITAL AND SUPPORT (M)</th>
<th>% COMPLETE MARCH 19</th>
<th>ORIGINAL END</th>
<th>TARGET COMPLETION</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Elijo Highway Bridge &amp; Community Enhancements</td>
<td>$257</td>
<td>59%</td>
<td>October 2020</td>
<td>May 2021</td>
</tr>
<tr>
<td>San Elijo Lagoon Double Track &amp; Chesterfield Crossing Improvements</td>
<td>$70.1</td>
<td>94%</td>
<td>February 2019</td>
<td>May 2019</td>
</tr>
<tr>
<td>San Elijo Lagoon Restoration</td>
<td>$117.3</td>
<td>54%</td>
<td>February 2021</td>
<td>July 2020</td>
</tr>
<tr>
<td>Coastal Rail Trail</td>
<td>$6.8</td>
<td>73%</td>
<td>February 2019</td>
<td>May 2019</td>
</tr>
<tr>
<td>Manchester Ave. – Palomar Airport Rd. Express Lanes</td>
<td>$305</td>
<td>10%</td>
<td>August 2021</td>
<td>August 2021</td>
</tr>
<tr>
<td>Palomar Airport Rd. – SR 78 Express Lanes</td>
<td>$113</td>
<td>Future GMP</td>
<td>Late 2022</td>
<td>Late 2021</td>
</tr>
<tr>
<td>Batiquitos Lagoon Double Track</td>
<td>$81*</td>
<td>Not included in total below</td>
<td>Future GMP</td>
<td>2020</td>
</tr>
</tbody>
</table>

Total: $870 M
RIBBON CUTTING

San Elijo Lagoon Double Track, Chesterfield Drive Improvements, and Coastal Rail Trail Projects

COMPLETED PROJECT

San Elijo Lagoon Double Track Project
Coastal Rail Trail Project

Chesterfield Drive Improvements Project
Construction Progress
Status: San Elijo Lagoon
Major Dredging Complete

AFTER

KeepSanDiegoMoving.com/BuildNCC | #BuildNCC
Construction Progress
San Elijo Lagoon Highway Bridge Outside Widening

Construction Progress
I-5 Express Lane Construction through Encinitas and Carlsbad Continues
San Elijo Lagoon Highway Bridge Project Health

Progress:
- $201.5 M Current Budget
- $121.8 M Expended

Contingency:
- $9.8 M Base
- $2.7 M Remaining

Schedule:
- October 2020 Base
- May 2021 Current Target

San Elijo Lagoon Double Track Project Health

Progress:
- $54.4 M Current Budget
- $50.5 M Expended

Contingency:
- $1.2 M Base
- $0.9 M Remaining

Schedule:
- June 2019 Base
- May 2019 Target
San Elijo Lagoon Restoration Project Health

Progress:
$99.7 M Current Budget
$56.1 M Expended

Contingency:
$5.0 M Base
$8.5 - 10 M Remaining

Schedule:
February 2021 Base
July 2020 Target

54% Work Complete
40% Time

Coastal Rail Trail Project Health

Progress:
$5.4 M Current Budget
$3.7 M Expended

Contingency:
$0.3 M Base
$50,000 Remaining

Schedule:
February 2019 Base
May 2019 Target

73% Work Complete
134% Time
I-5 Express Lanes Project Health
Manchester Avenue to Palomar Airport Road

Progress:
- $243.2 M Current Budget
- $24.5 M Expended

Contingency:
- $12.8 M Base
- $12.8 M Remaining

Schedule:
- August 2021 Base
- August 2021 Target

Risks and Opportunities

Opportunities

<table>
<thead>
<tr>
<th>Type</th>
<th>Topic</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>Cost &amp; Schedule</td>
<td>San Elijo Lagoon Restoration Project Ahead of Schedule</td>
<td>✔️</td>
</tr>
<tr>
<td>Cost &amp; Schedule</td>
<td>Advance STIP Funds for Express Lanes between Palomar Airport Road and SR 78 from FY 2022/2023 to 2019/2020</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Program</td>
<td>Accelerate Deployment of Express Lanes Congestion Pricing</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Cost &amp; Schedule</td>
<td>Advance SHOPP Funds for I-5 Operational Improvements at Palomar Airport Road</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Cost &amp; Schedule</td>
<td>Advance Regional Funds for I-5 Operational Improvements at I-5/SR 78</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

Risks

<table>
<thead>
<tr>
<th>Type</th>
<th>Topic</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost &amp; Schedule</td>
<td>Construct Remaining I-5 Bridge Foundations at the San Elijo Lagoon</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Cost</td>
<td>Construction Escalation for Express Lanes between Palomar Airport Road and SR 78</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
Remaining 2019 Milestones

**June 2019**  Complete south side of Santa Fe Drive/Encinitas Boulevard bike and pedestrian improvements

**September 2019**  Shift northbound I-5 traffic to new outside bridge

**October 2019**  Complete all dredging operations and begin planting in the San Elijo Lagoon

**December 2019**  Shift southbound I-5 traffic to new outside bridge

**December 2019**  Complete paving of the I-5 median in Encinitas and Carlsbad

55 Miles Per Hour Speed Reduction

**DRIVE 55 ALONG the 5**

**55 MPH WORK ZONE**

**SPEED LIMIT 55**

**YOUR SPEED**

KeepSanDiegoMoving.com/BuildNCC | #BuildNCC
Connect With Us During Construction
Caltrans and SANDAG are committed to minimizing impacts and keeping communities informed during construction.

- Sign up for updates at KeepSanDiegoMoving.com/BuildNCC
- Email us at BuildNCC@KeepSanDiegoMoving.com
- Call (844) NCC-0050
- Text BuildNCC to 313131 to receive construction alerts
- Follow us @BuildNCC #BuildNCC @SDCaltrans
- Like us at SANDAGregion | CaltransDistrict11
- Follow us at @SANDAGregion #BuildNCC
- Watch more at SANDAGregion | CaltransVideo

KeepSanDiegoMoving.com/BuildNCC | #BuildNCC
2019 Capital Grant Receipts
Revenue Bonds:
Review of Draft Documents

Transportation Committee Item 10  |  May 17, 2019

2019 Bond Financing Team

- San Diego Association of Governments
  - Kim Kawada, Chief Deputy Executive Director
  - Andre Doudjian, Finance Director
  - Jose Nuncio, TransNet Department Director
  - Jim Linthicum, Director of Mobility Management
  - John Kirk, General Counsel
  - Ray Major, Chief Economist and Data, Analytics, Modeling Director
- Financial Advisors, Public Financial Management
  - Peter Shellenberger, Managing Director
  - Darren Hodge, Director
- Bond Counsel, Norton Rose Fulbright US LLP
  - Victor Hsu, Partner
  - Russ Trice, Partner
- Disclosure Counsel, Orrick, Herrington & Sutcliffe, LLP
  - Devin Brennan, Partner
  - Mary Collins, Partner
- Senior Underwriter, Wells Fargo
  - Nancy Feldman, Managing Director
  - Julie Burger, Director
2019 Bond Issuance Presentation

1. Why we need to issue these bonds
2. Credit rating
3. Potential size and structure
4. Various draft bond documents that will be reviewed
5. Calendar of events

Project Schedule

- The Project is currently 57% complete with high-risk components such as utility relocation and most land acquisition finished
- Pre-revenue testing is expected to begin in June 2021
- The Project is expected to be open for service by November 2021
Highest Level of Spending 2019-2020

Mid-Coast Corridor Project Expenditures By Year

Plan of Finance

Mid-Coast Project Plan of Finance*

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFGA Proceeds</td>
<td>$712,380,000</td>
</tr>
<tr>
<td>GAN Proceeds (FFGA Takeout)</td>
<td>$331,000,000</td>
</tr>
<tr>
<td>Note Proceeds (TIFIA Loan Takeout)</td>
<td>$567,528,037</td>
</tr>
<tr>
<td>TransNet Contribution</td>
<td>$560,292,508</td>
</tr>
<tr>
<td><strong>Total Sources</strong></td>
<td><strong>$2,171,200,545</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Funding Uses</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible Project Costs</td>
<td>$2,171,200,545</td>
</tr>
<tr>
<td><strong>Total Uses</strong></td>
<td><strong>$2,171,200,545</strong></td>
</tr>
</tbody>
</table>

*Preliminary, subject to change based on final sizing of the 2019 GANs.
(1) Includes premium on BANs, resulting in amount greater than TIFIA loan.
Source: SANDAG
Credit Rating Agency Reviews

- Currently no ratings on these Bonds
  - Anticipated ratings
    - A-BBB Category

Potential Size and Structure

Structure Overview*

- **Par Amount:** $327.7 million
  - 2019A Serial Bonds: $206.3 million
  - 2019B Super Sinker: $125.0 million
- **Project Fund Target:** approx. $331.0 million
- **Tax Status:** Tax-exempt
- **Interest:** Semi-annual fixed-rate
- **Reserve Fund:** Maximum Annual Interest
- **Capitalized Interest:** Through FFY2020 (Nov. 15, 2019 and May 15, 2020 payments)
- **Maturity**
  - 2019A Serial Bonds: Nov. 15, 2023 - 2026
  - 2019B Super Sinker: Nov. 15, 2027
- **Call Feature**
  - 2019A Serial Bonds: 12-months prior to maturity
  - 2019B Super Sinker: Any interest payment date from Redemption Account monies

Preliminary, Subject to Change
2019 Bond Documents for Review

- The Resolution authorizes issuance of the 2019 Bonds and approves the following documents:
  - Official Statement
  - Trust Indenture
  - Bond Purchase Agreement
  - Continuing Disclosure Agreement

Next Steps

- May 16, 2019 – Rating Agency Presentation
- May 17, 2019 – Transportation Committee Bonds Overview
- May 17, 2019 – Board of Directors Bonds Overview
- June 7, 2019 – Transportation Committee review of Bond documents and recommend Board approval
- June 14, 2019 – Board of Directors review and approval of Bond documents
- Week of June 17, 2019 – Post Official Statement
- Weeks of July 1-19, 2019 – Marketing of Bonds
- Week of July 22, 2019 – Pricing
- Week of August 5, 2019 – Closing