NORTH SAN DIEGO TRANSIT RIDERSHIP INVESTMENT PROGRAM

SB 125 TRANSIT AND INTERCITY RAIL CAPITAL PROGRAM
& ZERO EMISSION TRANSIT CAPITAL PROGRAM

SUBMITTED TO
CALIFORNIA STATE TRANSPORTATION AGENCY

SUBMITTED BY
SAN DIEGO ASSOCIATION OF GOVERNMENTS

NORTH COUNTY TRANSIT DISTRICT

SANDAG

NORTH COUNTY TRANSIT DISTRICT

DECEMBER 2023

1 Allocation Package Narrative Explanation

1.1 Resource Utilization Plans

The San Diego Association of Governments (SANDAG) and the North County Transit District (NCTD) have developed this SB 125 funding plan to implement strategies to increase ridership and enhance the customer riding experience. As shown in the FY2024 Operating Budget and Capital Improvement Program, NCTD's five-year Operating Budget is balanced, as required by NCTD's Board of Directors Policy 17. To achieve a balanced operating budget, NCTD's Capital Improvement Program declines significantly each fiscal year, most notably beginning in FY2026. NCTD's FY2024-FY2028 projection shows that only $106.7 million of the $379.1 million needed for NCTD's state of good repair program could be funded with current funding levels.

In addition, SANDAG and NCTD intend to use this new funding to significantly enhance its efforts to increase ridership, improve the customer experience, and support the State's greenhouse gas emissions reduction goals. Specifically, the Allocation Package includes investments in the San Dieguito Double Track Phase 1 and Phase 2 (SDDT1 and SDDT2) projects, Del Mar Bluffs Stabilization Phase 5 (DMB5) project, Sorrento Valley COASTER Connection service, and zero emission fleet transition.

NCTD utilizes funding from the Federal Transit Administration as well as state funding from the Transportation Development Act and local sales tax revenues from *TransNet* to balance the operating budget and maintain service levels. Funding from SB 125 will allow NCTD to keep the operating budget balanced and maintain service levels, while completing necessary capital improvement projects and preventative maintenance activities.

1.2 Improved Outcomes

Short-term Financial Sustainability Demonstration

SB 125 funding will allow NCTD to maintain and expand existing service and support its capital improvement program to maintain a state of good repair throughout NCTD's system. SB 125 funds used for preventive maintenance will reduce the funding currently allocated for that purpose and allow it to be repurposed to other capital needs, which are severely underfunded.

Investments in fare technology will enhance the customer experience and allow for efficient collection and accounting of fare revenue. For example, one project element is to install open-loop fare validators, which expand the potential methods of payment for transit riders. This is anticipated to help offset the drop in fare revenue associated with the COVID pandemic and rise of remote work. The fare system investments will also further the integration of fare equipment with the San Diego Metropolitan Transit System (MTS).

Finally, the capital investment will fulfill previously underfunded capital needs and close the capital funding deficit in the short term. SB 125 funding will advance strategic progress on longer-term goals of expanding service and achieving a net-zero carbon system. NCTD plans to

quickly restore BREEZE fixed-route service to pre-pandemic levels and implement new on-demand services. Additionally, the double tracking project elements in this package will allow for future increases in service frequency on COASTER commuter rail and Amtrak intercity rail services.

Ridership Improvement Strategies

The project elements within the allocation package were chosen to support the continuing recovery of ridership levels across the NCTD system post-pandemic. For reference, October 2023 saw a 6.2% increase in systemwide ridership above October 2022 levels and a 36.6% increase from October 2021 levels. These ridership benefits are:

- **Rail Capital Investments**: NCTD and SANDAG propose to invest SB 125 funds into critical capacity-enhancing project elements on the Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor to increase passenger and freight capacity on this nationally significant corridor. Fare collection infrastructure and security equipment like CCTV cameras are part of the ridership strategies that focus on creating a smooth payment experience and a safe and welcoming space for riders. The improvements proposed in the TIRCP Rail Capital project elements will enhance safety and facilitate more fare payment options.
- **Bus Capital Investments**: The updated buses and fully ADA-accessible vans purchased through this funding will enhance the customer experience through improved reliability and a superior vehicle condition, encouraging riders to rely more on public transit. The Sorrento Valley area is home to some of the largest employers in the San Diego region. The new vehicle fleet for the Sorrento Valley COASTER Connection service will provide the first-mile and last-mile connections to these employers and incentivize growth in ridership.
- **Zero-Emission Capital Investments and Operating**: The zero-emission vehicles proposed for purchase under the ZETCP project will reduce pollutants and improve air quality for riders waiting at transit stations or at bus stops. The project also includes elements to support the implementation of these new zero-emission bus technologies. This is a tangible rider benefit, as well as a benefit to the neighborhoods surrounding these transit routes.
- **TIRCP Operating**: The preventive maintenance funding ensures the reliability of transit vehicles and that the condition of facilities, transit stations, and bus stops are in a state of good repair, thus reducing maintenance obligations and providing for a superior customer experience.

The funding requested in this allocation package will support the ridership benefits in the NCTD system that are mentioned above.

Integration of Fares

In terms of fare integration, NCTD and MTS has executed a joint agreement to implement an integrated fare system called PRONTO that was launched in September 2021. PRONTO is designed to facilitate seamless travel and fare payment across the two transit agencies and intermodal transfers within the San Diego area. The funding requested in this allocation package will support the expansion of this integration project.

1.3 Methodology on Project Funding Distribution

SANDAG worked collaboratively with NCTD to develop the funding approach to meet the pressing capital and operating needs for the TIRCP and ZETCP projects listed in this Allocation Package. The funding allocation breakdown between projects is located in the Summary Funding Table in Section 5. In general, capacity enhancement and customer experience projects that will grow regional transit ridership were prioritized. Paratransit improvements were prioritized as people with disabilities are a key population often dependent on transit for critical mobility needs.

To build this list, every division submitted projects and ranked them as high, medium, or low priority. The capital project manager took the highest-ranked projects. Then, the project list was cross-checked to concur with the project eligibility criteria before being included into this allocation package.

Operating Project Justification

The operating investment identified in this application is for preventive maintenance activities. As described in Section 1.1, NCTD has an approach for achieving long-term budget sustainability. The purpose of this funding is to support near-term preventive maintenance to ensure that the system is in a state of good repair and minimize costly capital investments in the long term.

NCTD is the only transit operator within the SANDAG Regional Transportation Planning Agency (RTPA), and as such there is no methodology needed for allocating investments between multiple operators. San Diego MTS is its own RTPA.

Capital Project Justification

As described above, NCTD went through a detailed review of capital needs and prioritized them through their vetted capital planning process. In brief, the priority of the proposed capital investments is the following:

- **Rail Investment**: The package of rail project elements will support an enhanced customer experience for those using the rail system. Each element is geared toward improving the ease with which customers can use the service and enhancing reliability so that transit is the preferred mode of travel. There are multiple fare system investments to expand the reach and availability of fare infrastructure (e.g., ticket vending machines) and the utility of the technology. Wayfinding installation and text alerts will improve the navigability of the system. The double-track project element will improve the reliability and speed of rail service by reducing conflicts with other trains. Finally, investments to increase system security are essential to maintaining a safe environment for all customers.
- **Bus/Paratransit Investment**: Together, these project elements will comprehensively improve the customer experience for LIFT and Sorrento Valley COASTER Connection customers. This project element will replace seven (7) LIFT vehicles currently equipped with two (2) wheelchair position areas with vehicles equipped with four (4). The project will also expand the fleet by adding three (3) new LIFT vehicles. This will allow more customers with

mobility devices to comfortably ride LIFT. NCTD will implement a new service that is currently operated by MTS – the Sorrento Valley COASTER Connection service. This project element will purchase six (6) vehicles for that service and equip them with Regional Transit Management System (RTMS) and fare system infrastructure. These purchases of new vehicles and the implementation of the new service will increase NCTD's ridership.

- **Existing TIRCP Project Investment**: SDDT2, which received TIRCP Cycle 6 funding, is considered of high importance as it is identified in multiple planning documents such as the LOSSAN Infrastructure Development Plan for the LOSSAN Rail Corridor in San Diego County (2018), San Diego Pathing Study (2020), LOSSAN Optimization Study (2021), SANDAG's 2021 Regional Plan, and the North Coast Corridor Public Works Plan—an advanced optimization effort to improve and maintain multimodal mobility in the area adjacent to the LOSSAN Rail Corridor in north San Diego County. SDDT2 is also required to achieve the midterm objectives described in the San Diego Pathing Study and the LOSSAN Optimization Study. The other project previously receiving TIRCP competitive funding, Del Mar Bluffs 5 (Cycle 4 funding), is a critical project to stabilize the LOSSAN rail along the Del Mar Bluffs. This project will ensure that freight and passenger rail can continue running on the only rail connection between San Diego and the rest of the state.
- **ZETCP Investment**: The investments in zero-emission rolling stock, support facilities, and technical support were prioritized as NCTD makes critical progress on attaining its vision of a carbon-free transit system. The project elements include safety equipment related to servicing zero-emission buses, as well as the buses themselves. There are also operating expenses in this request to defray the added expense of maintenance and hydrogen fuel as well as planning expenses for working toward zero-emission rail.

2 Detailed Project Description – TIRCP Capital

2.1 Existing TIRCP Project

NCTD and SANDAG are requesting SB 125 TIRCP funding to fill funding shortfalls for the SDDT2 and Del Mar Bluffs 5 projects. These projects both received funding from TIRCP in previous cycles. Additional details are provided in this section.

Project Title & TIRCP Cycle of Award

NCTD and SANDAG received partial funding under TIRCP Cycle 6 for SDDT2. The project's scope included building a special events platform at the Del Mar Fairgrounds, replacing the 107-year-old wooden trestle San Dieguito River Railway Bridge, and constructing 0.9 miles of double track along the San Diego subdivision of the Los Angeles-San Diego-San Luis Obispo Rail Corridor.

NCTD and SANDAG received partial funding under TIRCP Cycle 4 for DMB5. The project's scope includes stabilization efforts along the Del Mar Bluffs including installation of piles, lagging and retaining walls, drainage improvements and piped outlets to the beach, and other

stabilization and erosion control measures on the upper bluffs. Project limits are between MP 244 (Coast Boulevard Del Mar) and MP 246 (McGonigle Road) on the LOSSAN Rail Corridor.

Fund allocation

NCTD and SANDAG partnered on state and federal opportunities to obtain construction funding of $230.8 million for SDDT2, and they were awarded $100 million of TIRCP Cycle 6 funds to support the implementation of SDDT2. In addition, NCTD submitted an application for SDDT2 to the Multimodal Project Discretionary Grant Opportunity (MPDG) of $130 million. However, the U.S. Department of Transportation (USDOT) indicated to NCTD a preliminary willingness to provide a partial award of $53 million. According to new estimates from SANDAG's economist, SDDT2 project costs are expected to increase. The total project cost is now expected to be $261,132,354. Therefore, NCTD and SANDAG are requesting funds from SB 125 for a portion of the remaining construction funding as shown in Table 1.

DMB5 was approved with Cycle 4 funding. The initial project funding was $77 million. NCTD and SANDAG received a grant from the Trade Corridor Enhancement Program (TCEP) for DMB5. SANDAG is requesting $2.4 million to match the TCEP award and an additional $7.5 million is also needed for this project due to cost increases. The total project cost is now expected to be upwards of $84.9 million. Therefore, NCTD and SANDAG are requesting additional funding from SB 125 to cover the remaining costs as shown in Table 1.

Table 1 Existing TIRCP Projects Funding Request

Project Name	Summary Scope	SB125 Funding Request
San Dieguito Double Track Phase 2	The project's scope included building a special events platform at the Del Mar Fairgrounds, replacing the 107-year-old wooden trestle San Dieguito River Railway Bridge, and constructing 0.9 miles of double track along the San Diego subdivision of the Los Angeles-San Diego-San Luis Obispo Rail Corridor.	$36,396,621
Del Mar Bluffs 5	The project's scope includes stabilization efforts including installation of piles, lagging and retaining walls, drainage improvements and piped outlets to the beach, and other stabilization and erosion control measures on the upper bluffs. Project limits are between MP 244 (Coast Boulevard Del Mar) and MP 246 (McGonigle Road) on the LOSSAN Rail Corridor.	$9,900,000
Total		**$46,296,621**

2.2 New TIRCP Project

Fact Sheet

Most project elements within each project listed below will be implemented by NCTD. The SDDT 1 project element will be implemented by SANDAG in partnership with NCTD. SANDAG will have a 1 percent administrative share of projects, which is shown in the Summary Funding Table in Section 5. The TIRCP fact sheet for new projects is shown in Table 2 and Table 3.

Table 2 New TIRCP Project Summary Table – Rail Capital Investments

Project Title	Start Date/ End Date	Summary Scope	Total Project Costs	Funding Sources
San Dieguito Double Track Phase 1	12/2024 - 1/2028	This project element is Phase 1 of the San Dieguito River Double Track project. Phase 1 will provide a second main track from CP Valley (MP 242.2) to the north end of the existing San Dieguito Lagoon trestle bridge (MP 243.0), adding 0.8 miles of double track. Signal work will be required beyond the construction limits on either end of the project, estimated to be between MP 241.1 to 243.9.	$69.3 million	CMAQ: $12.6M TCEP: $30.5M FTA 5307: $13M **TIRCP SB 125: $13.2M**
Fare System Enhancements	11/2023 - 5/2024	This project element supports continuing improvement and implementation phases of PRONTO fare system with MTS. The project element will fund open loop fare collection via credit/debit cards on all transit modes where PRONTO validators are utilized.	$200,000	**TIRCP SB 125: $200,000**
CSI-PRONTO Fare Validators	7/2023 - 7/2025	This project element will add up to 25 wayside open-loop payment fare validators integrated with the joint MTS/NCTD PRONTO fare payment system. The project element will increase convenience of payment by locating additional payment terminals on NCTD COASTER and SPRINTER platforms resulting in higher rates of fare collection and ridership.	250,000	**TIRCP SB 125: $250,000**

Project Title	Start Date/ End Date	Summary Scope	Total Project Costs	Funding Sources
CSI - Ticket Vending Machines	7/2023 - 7/2025	This project element is part of the Customer Service Improvement (CSI) program, which will improve or enhance fare collection infrastructure. This project element will install additional ticket vending machines at select transit stations.	$250,000	**TIRCP SB 125: $250,000**
Wayfinding Master Plan & Phase 2	7/2024 - 7/20/25	Continued implementation of the NCTD Wayfinding Master Plan project, based on the design by RSM consultants completed in 2019.	$2,254,878	**TIRCP SB 125: $2,254,878**
Security System Improvements	7/2022 – 11/2024	This project element will include security access upgrades at multiple locations across the district including BREEZE West & East Division, VTC, and ETC. Multiple locations lack modern digitized access that is universal across NCTD's facilities. Through these upgrades, NCTD's assets and staff will be further protected.	$220,000	**TIRCP SB 125: $220,000**
CCTV System Equipment	7/2024 - 7/2026	Expand out CCTV system to continue to provide the ability to do virtual patrol in dispersed areas in the system. This project element includes basic equipment of the system and any other ancillary items.	$2,000,000	**TIRCP SB 125: $2,000,000**
Text-Based Customer Security Alerts	4/2024 - 10/2024	The development of a text-based customer security alert system ("e-lerts"), allowing riders to notify NCTD of observations and concerns via SMS text message and other mobile methods as opposed to just via phone call. This project element includes the procurement of a cloud-based incident-reporting platform to manage communications.	$330,000	**TIRCP SB 125: $330,000**
		Total TIRCP Request	**$18,704,878**	

Table 3 New TIRCP Project Summary Table – Bus Capital Investments

Project Title	Start Date/ End Date	Summary Scope	Total Project Costs	Sources of Funding
Ten (10) LIFT Cut-a-Way Vans	4/2024 - 11/2024	This project element will provide for the replacement of 10 model year 2008 & 2010 E450 cutaway vans currently equipped with 2-wheel chair position areas with vans capable of securing 4 wheelchair positions.	$ 3,900,000	**TIRCP SB 125: $3,900,000**
SV COASTER Connection Fleet Readiness	5/2024 - 9/2024	This project element will facilitate the transfer up to six (6) Cut-Away SVCC service vehicles from MTS to NCTD. Vehicles will be conveyed with RTMS system and PRONTO fare system equipment.	$150,000	**TIRCP SB 125: $150,000**
SV COASTER Connection Fleet	1/2024 - 1/2026	This project element replaces six (6) end of life vehicles transferred from MTS to NCTD as part of the transition of Sorrento Valley Coaster Connection service to NCTD. Includes purchase of up to six new Buses	$2,400,000	**TICRP SB 125: $2,400,000**
		Total TIRCP Request	**$6,450,000**	

Detailed Project Schedule

Detailed project schedules with milestones of TIRCP capital projects are listed in Table 4 through Table 14.

Table 4 San Dieguito Double Track and Platform Phase 1 Detailed Project Schedule

Task Name	Start	End
Construction	11/2024	11/2027
Begin Construction	11/2024	10/2027
Open to Public	10/2027	
Close Out	10/2027	1/2028

Table 5 Fare System Enhancements Detailed Project Schedule

Task Name	Start	End
Project Development	11/1/2023	5/1/2024
Implementation	5/1/2024	

Table 6 CSI-PRONTO Fare Validators Detailed Project Schedule

Task Name	Start	End
Project Development	7/1/2023	
Purchases	7/1/2024	7/1/2025
Phase 1	7/1/2024	
Phase 2	7/1/2025	
Construction and Implementation	7/1/2024	7/1/2025

Table 7 CSI-Ticket Vending Machines Detailed Project Schedule

Task Name	Start	End
Project Development	7/1/2023	
Construction	7/1/2024	7/1/2025

Table 8 Wayfinding Master Plan & Phase 2 Detailed Project Schedule

Task Name	Start	End
Construction	7/2024	7/2025

Table 9 Security System Improvements Detailed Project Schedule

Task Name	Start	End
Phase 1		
Project Development	7/2022	3/2023
Construction	6/2023	11/2023
Phase 2		
Project Development	11/2023	2/2024
Construction	5/2024	11/2024

Table 10 CCTV System Equipment Detailed Project Schedule

Task Name	Start
Project Development	7/1/2024
Implementation	7/1/2026

Table 11 Text-Based Customer Security Alerts Detailed Project Schedule

Task Name	Start
Project Development	4/1/2024
Implementation	10/1/2024

Table 12 Ten (10) LIFT Cut-a-Way Vans Detailed Project Schedule

Task Name	Start
Vehicle Purchase	4/2024
Vehicle Acceptance	11/2024
Vehicles in Service	11/2024

Table 13 SV COASTER Connection Fleet Readiness Detailed Project Schedule

Task Name	Start	End
Vehicle Acceptance	5/1/2024	
Vehicle Readiness	5/1/2024	9/1/2024
Vehicles in Service	9/1/2024	

Table 14 SV COASTER Connection Fleet Detailed Project Schedule

Task Name	Start
Project Development	1/1/2024
Vehicle Purchase	10/1/2024
Vehicles in Service	1/1/2026

Project Location Maps

As shown on the next page in Figure 1, the project locations are spread throughout the NCTD service area and depicted in the following maps:

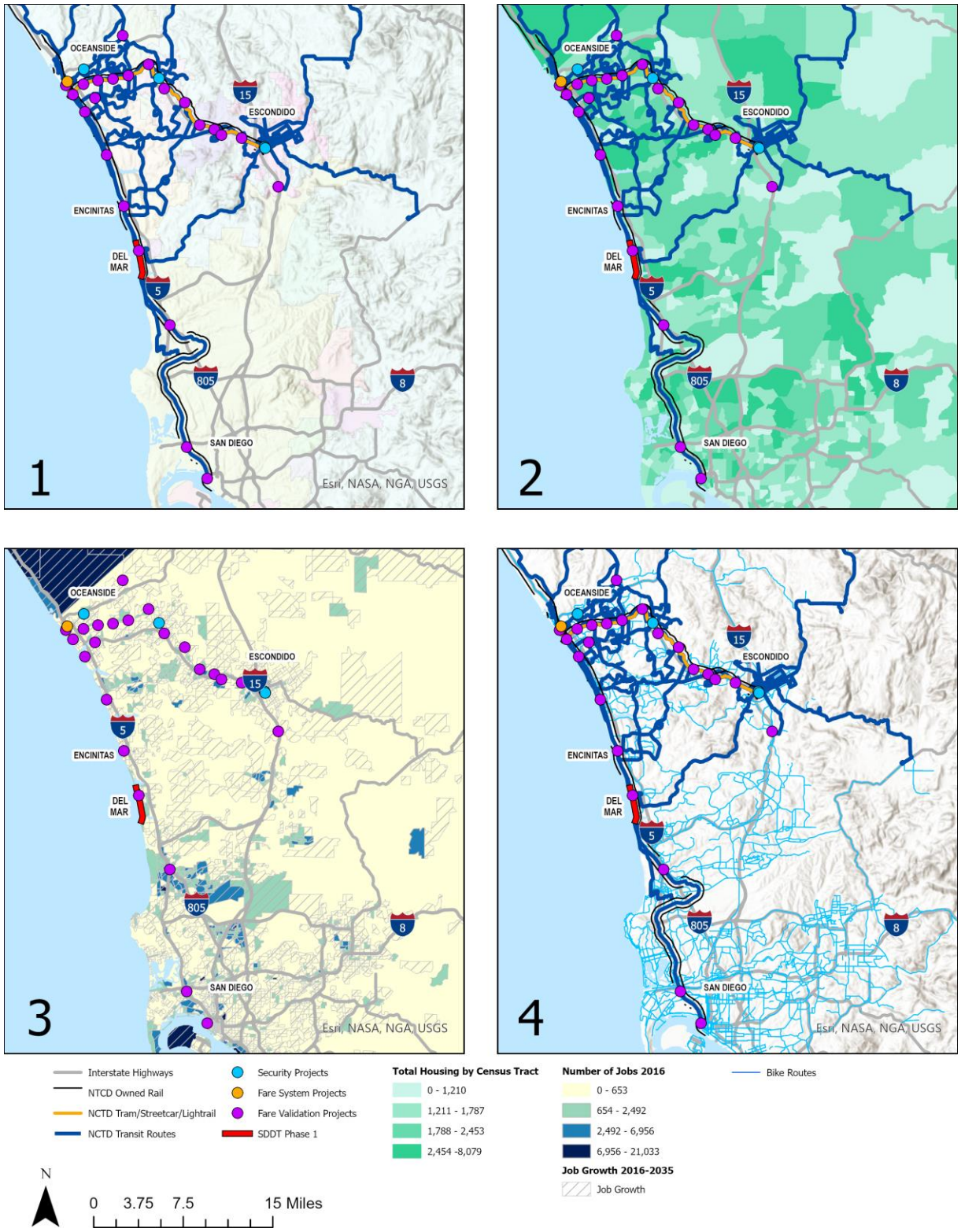
(1) Project locations and impacted transit routes, and municipal boundaries.

(2) Project locations and impacted transit routes mapped over 2020 total housing by census tract.

(3) Project locations mapped over projected employment growth.

(4) Project locations mapped over active transportation infrastructure.

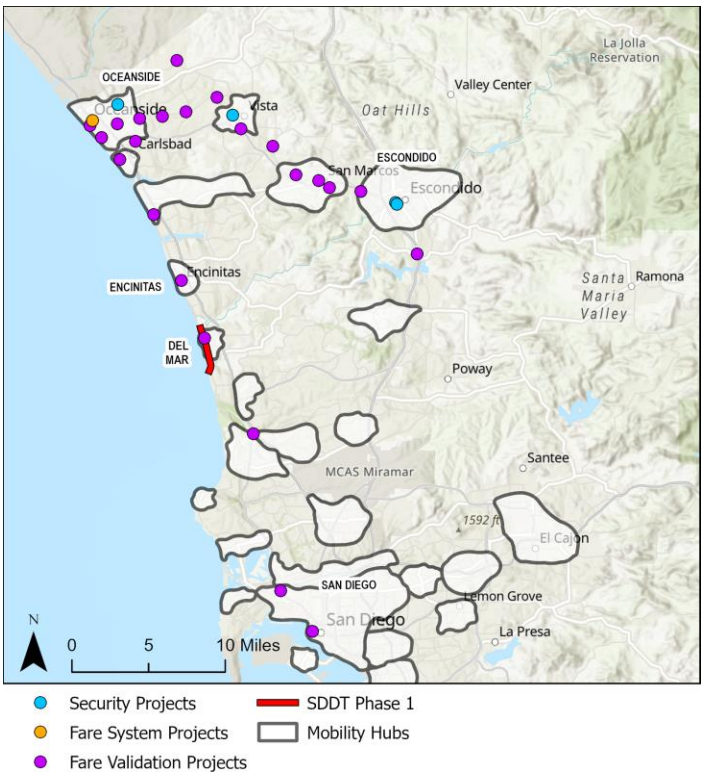
Figure 1 TIRCP Capital Project Locations Maps



Sources: San Diego Open GIS Data Portal (Accessed November 2023), SanGIS GIS Data Warehouse (Accessed November 2023), California Hard to Count (2019), Employment data: SANDAG Series 14 growth forecast, DS38 (SCS), TAZ geography.

Many of the TIRCP Capital project elements are within or near Mobility Hubs identified by SANDAG, which are areas designated for concentrated future development (Figure 2). They are areas that have a high population density, many travel options, and destinations. Between 2016 and 2050, total housing units for the Mobility Hub locations is projected to grow by 39.4 percent. Additionally, the Mobility Hubs expect to see a 33.3 percent increase in jobs. In San Diego County, an increase of 23.6 percent in housing and 26.7 percent in jobs is expected between 2016 and 2050. Comparing the Mobility Hubs to the projected growth for San Diego County overall, expected housing and job growth is higher in the designated Mobility Hub areas, and consequently around or close to the project locations.

Figure 2 TIRCP Capital Projects and Mobility Hub Designated Land Use



Source: NCTD, SANDAG

Emissions Reduction Features

The SDDT1 project element included in this application is part of the package of project elements that will support more frequent and reliable passenger and freight rail service along the San Diego Subdivision of the LOSSAN rail corridor. More frequent service will promote mode-shifts from truck to freight rail and from personal occupancy vehicle to passenger rail, which will reduce net emissions in the corridor.

The *Senate Bill 1 – Trade Corridor Enhancement Program (TCEP) Application for the LOSSAN-SD Intermodal Improvement Program* (SANDAG and Caltrans District 11, 2020) included estimates of emissions benefits from additional passenger and freight rail service that could be accommodated based on a set of five major improvements in this corridor, including the SDDT1 and DMB5 projects. These emissions benefits account for reduced truck traffic and increased

rail traffic related to truck-rail mode shifts for freight, as well as reduced auto traffic and increased passenger rail traffic related to auto-transit mode shifts for passengers traveling via Amtrak or COASTER service. The set of TCEP projects is estimated to divert more than 460 daily truck trips to rail, accommodating over 247,000 freight rail miles and over 97,000 passenger rail miles annually over a 20-year period. This analysis fulfills the statutory requirement for SDDT1 that it demonstrate GHG emission reductions.

The 20-year estimated emissions reductions for the double-track project elements are shown in Table 15. These benefits and co-benefits are based on the benefit-cost analysis for the TCEP application, prorated by the share of total project costs related to the SDDT1 double-track project components which are included in this application either as existing or new TIRCP projects (the share of costs from the TCEP application was $127 million of $202 million, or 63 percent). The cost-effectiveness of the GHG emission reductions is also shown, based on the TIRPC funds requested and previously received to support these components. These funds include $4.9 million in funds previously received from the program for DMB5, as well as $23.1 million in newly requested funds for DMB5 and SDDT1.

Table 15 20-Year GHG Emissions Savings and Co-Benefits[a]

	CO2 (MT)	VOC (lb.)	Nox (lb.)	PM2.5 (lb.)
Passenger - Personal Vehicles	21,148	4,491	9,710	150
Passenger - Rail	0	(7,746)	(144,012)	0
Freight - Trucks	123,204	9,502	342,276	5,400
Freight - Rail	(53,019)	0	(321,729)	0
Net Reduction	**91,333**	**6,247**	**(113,756)**	**5,550**
TIRPC Funds	$28,000,000			
GHG Emission Reduction/TIRCP $	0.00326189			
Passenger VMT Reductions	84,300,000			
Passenger Travel Cost Savings	$20,900,000			
Fossil Fuel Energy Use Reductions (gallons)[b]	6,400,000			
Energy and Fuel Cost Savings ($)[b]	$21,000,000			

[a]Estimates based on data developed for cost-benefit analysis for *Trade Corridor Enhancement Program (TCEP) Application for the LOSSAN-SD Intermodal Improvement Program (SANDAG and Caltrans District 11, 2020). Values cover a 20-year period and are prorated by share of component to total project costs. Costs are undiscounted.*

[b]*Fossil fuel energy and cost savings reflect savings from reductions in automobile and truck energy and fuel use and increases in freight rail fuel use; they are estimated based on reported CO_2 emissions reductions for the TCEP benefit-cost analysis and life-cycle emission factors from California Air Resources Board LCFS Pathway Certified Carbon Intensities. Energy and fuel costs associated with passenger rail service could not be estimated from the available data.*

The bus and paratransit vehicle replacement project will also support emission reductions by replacing older vehicles with newer, more efficient vehicles. These project elements include 10 LIFT cut-a-way vans replacing model year 2008, 2010, and 2016 E450 gasoline vehicles; as well as the purchase of six (6) new diesel buses for the SV COASTER Connection Fleet, which will replace year 2014 El Dorado National AeroElite 320 minibuses.

The replacement vans and buses are estimated to reduce greenhouse gas emissions by 2,300 metric tons of carbon dioxide-equivalent (CO_2e), at a cost-effectiveness of $2,800 in TIRCP funds per metric ton CO_2e. The buses will reduce fossil fuel use by 197,000 gallons and eliminate over 1,500 pounds of air pollutant emissions over the life of the buses. Details of the emissions calculations and co-benefits, and cost-effectiveness are provided in Attachment 2.

Ridership Benefits

TIRCP Capital projects provide ridership benefits through infrastructure and asset upgrades, fare system enhancements, and safety improvements.

- **Rail**: SDDT1 will add a second main track and signal works to provide expanded service coverage, enhance operational reliability and flexibility, and improve service frequency. In addition, the rail investments include fare system improvements and safety and security enhancements that will provide ridership benefits for NCTD.
  - Fare system improvements, such as software system improvements and locating additional payment terminals and ticket vending machines, will improve rider experience and encourage ridership growth. The PRONTO fare system is a unified and user-friendly fare payment system and improving it for a better-integrated fare payment system for both NCTD and MTS can increase ease of use, convenience, and cost-effective transfers. The integration encourages riders to use transit for more than just a portion of their trip. With additional fare validators and vending machines, purchasing tickets will be more user-friendly and convenient, promoting greater use of public transportation.
  - Safety and security enhancements will positively impact ridership through security access upgrades, expanded CCTV coverage, and an efficient reporting system. These implementations will encourage riders to perceive public transportation positively, and the reductions in crime will encourage more people, including vulnerable populations, to use public transportation over other modes of travel. Safety and security enhancements provide a better overall customer experience and higher satisfaction.
  - Wayfinding and text messages will help to improve the navigability of the system, especially for new users or those traveling to new destinations. This will help to reduce barriers to using the service, encouraging additional ridership.
- **Bus**: With the updated buses and fully accessible vans, reliability and service quality will improve, encouraging riders to rely more on public transit.

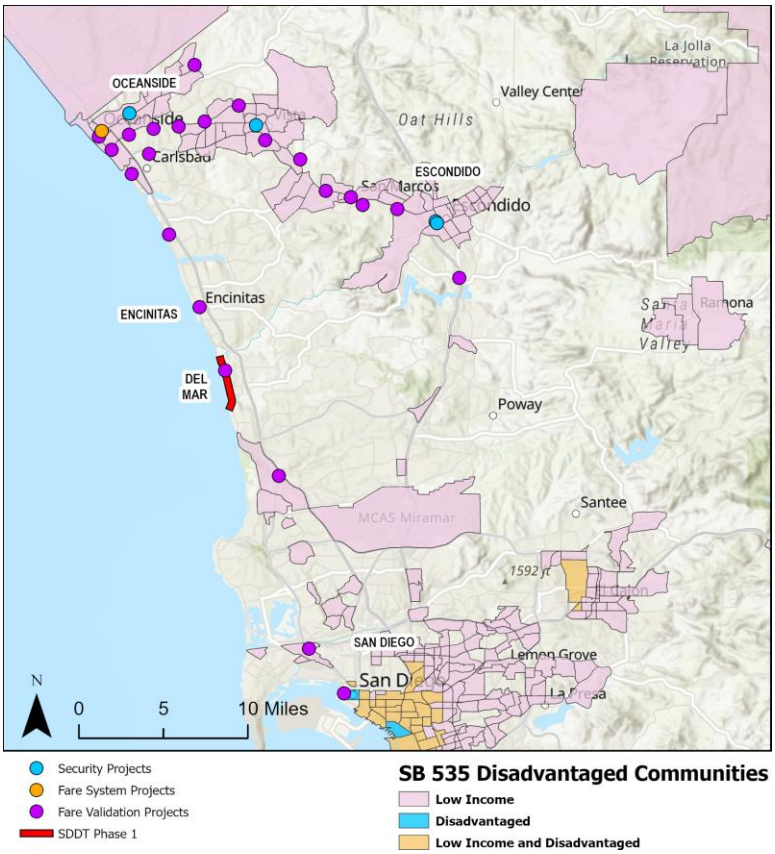
Disadvantaged Community Benefits

AB 1550, the Climate Investments for California Communities Act expands on the SB 535 requirements related to disadvantaged communities. SB 535 established minimum funding requirements for “Disadvantaged Communities” (DACs) and also allowed CalEPA to be

responsible for identifying the DACs based on “geographic, socioeconomic, public health, and environmental hazard criteria.”

As seen in Figure 3, most TIRCP Capital projects are within or around identified low-income communities, which are census tracts with median household income at or below 80 percent of the statewide median income. The benefits will go towards fulfilling the principles of AB 1550 which seeks to ensure that California Climate Investments (CCI) funding benefits a minimum percentage of priority populations. The replacement of older rubber-tire vehicles with newer ones will improve air quality. The enhancements in fare validation and security will allow communities to have easier access to transportation, which disproportionately benefits lower-income residents.

Figure 3 Locations of TIRCP Capital Projects Compared to Disadvantaged, Low Income, or Disadvantaged and Low-Income Communities as Identified by SB 535



Source: NCTD, SANDAG

3 Detailed Project Description – ZETCP

This section provides a detailed description of the zero-emission project elements proposed for funding. The Fact Sheet with a concise summary is found on the next page in Table 16.

3.1 Fact Sheet

All project elements will be implemented by NCTD. SANDAG will have a 1 percent administrative share of projects as shown in the Summary Funding Table in Section 5.

Table 16 ZETCP Capital Project Fact Sheet – Technology Investments

Project Title	Start Date/ End Date	Summary Scope	Total Project Costs	Funding Sources
ZEB Transition Support Project	7/2023 - 4/2026	• **BOW-BOE Overhead Cranes and Fall Protection Construction**: The BREEZE Operations West (BOW) and BREEZE Operations East (BOE) facility require an overhead crane at each location to remove the battery packs, control systems, and HVAC systems in case of system failures. The overhead cranes would ease maintenance on the zero-emission bus vehicles during failures and provide a fast, efficient way for roof component replacements. The newly acquired zero-emissions buses also require frequent maintenance on bus components that reside on the roof. This maintenance would be streamlined with the use of overhead fall protection such as a catwalk or jib cranes at both BREEZE Operations West and BREEZE Operations East site locations. This project element will promote the safety of the workers and reduce maintenance downtimes. • **Zero Emission Bus Pilot Program Certification and Analysis**: Analyses will determine the readiness of battery electric and hydrogen fuel cell electric buses and supportive infrastructure, as well as provide a safety certification.	$4,060,000	**ZETCP: $4,060,000**
Battery Electric Buses (BEB)	7/2024 – 7/2025	Matching funds towards the purchase of two (2) BEBs and for on-board equipment. Equipment/improvements include and are not limited to: fareboxes, radios, APCs, Camera System, and driver protection barriers.	$2,151,347	FTA: $1,206,518 Community Project Funding: $500,000 TDA: $301,629 **ZETCP: $143,200**

Project Title	Start Date/ End Date	Summary Scope	Total Project Costs	Funding Sources
Hydrogen Buses	1/2024 – 3/2025	Matching funds towards the purchase of 23 hydrogen fuel cell electric buses and for on-board equipment. Equipment/improvements include and are not limited to: fareboxes, radios, APCs, Camera System, and driver protection barriers.	$34,363,449	FTA Low-No: $27,093,319 LCTOP: $2,900,141 TDA: $809,248 **ZETCP: $3,560,741**
		Total ZETCP Request	**$7,763,941**	

Table 17 ZETCP Operating Project Fact Sheet – Operating Support

Project Title	Start Date/ End Date	Summary Scope	Total Project Costs	Sources of Funding
Operating budget	7/2023 – 6/2027	NCTD will use these funds to support the maintenance of the hydrogen stations and to purchase hydrogen fuel as an operating expense.	$2,550,000	**ZETCP: $2,550,000**
Zero Emission Rail Strategy	5/2023 – 12/2033	By 2035, NCTD aims to transition to zero emission rail operation. NCTD's ZE Rail Program will help identify infrastructure and fleet requirements and inform future procurements that will replace the current SPRINTER fleet, and diesel-electric locomotives used for COASTER service. To advance these programs, NCTD will require the support of a technical engineering and consulting firm experienced in the implementation of ZE rail technology and qualified to support future rolling stock procurements.	$8,300,000	Transportation Development Act: $2,100,000 **ZETCP: $6,234,674**
		Total ZETCP Request	**$8,784,674**	

3.2 Detailed Project Schedule

See Table 18 through Table 22 for detailed project element schedules for the ZETCP projects.

Table 18 BOW-BOE Overhead Cranes and Fall Protection Construction Detailed Project Schedule

Task Name	Start	End
PSR	7/1/2023	5/31/2024
Procurement	7/1/2023	12/26/2023
NTP	12/27/2023	12/27/2023
Completion	12/28/2023	5/31/2024
Design	6/1/2024	12/28/2024
Procurement	6/1/2024	8/15/2024
NTP	8/16/2024	8/16/2024
Preliminary Design	8/17/2024	10/15/2024
Complete Design	10/16/2024	12/28/2024
Construction	1/4/2025	11/1/2025
Procurement	1/4/2025	3/15/2025
Board Authority	3/16/2025	3/16/2025
NTP	3/30/2025	3/30/2025
Complete Construction	4/1/2025	3/30/2026
Project Completion	4/1/2026	4/30/2026

Table 19 Zero Emission Bus Pilot Program Certification and Analysis Detailed Project Schedule

Project Element	Start	End
Procurement	3/1/2024	9/1/2024
Analysis	3/1/2024	9/1/2024

Table 20 Two Battery Electric Buses Detailed Project Schedule

Task Name	Start
Vehicle purchase*	7/1/2024
Vehicle acceptance	7/1/2025

*Note: vehicle purchase date is subject to change because it is contingent on the passage of the federal FY2024 *Consolidated Appropriations Act*.

Table 21 Hydrogen Buses Detailed Project Schedule

Task Name	Start
Purchase of 13 FCEBs	1/1/2024
Purchase of 10 FCEBs	2/1/2024
Vehicle acceptance	3/1/2025

Table 22 Zero Emission Rail Strategy Detailed Project Schedule

Task Name	Start	End
ZE Pilot Planning and Program Support	5/1/2023	7/1/2024
Grant/Financing Application Support	7/1/2024	7/1/2025
Pilot Evaluation and Fleet Strategy Development Support	1/1/2025	7/1/2028
Procurement Development and Support	1/1/2029	12/31/2033
Owner's Representative Support Services	1/1/2025	12/31/2033

3.3 Project Location Maps

The project location maps for the ZETCP projects are found on the next page in Figure 4 and depicted in the following maps:

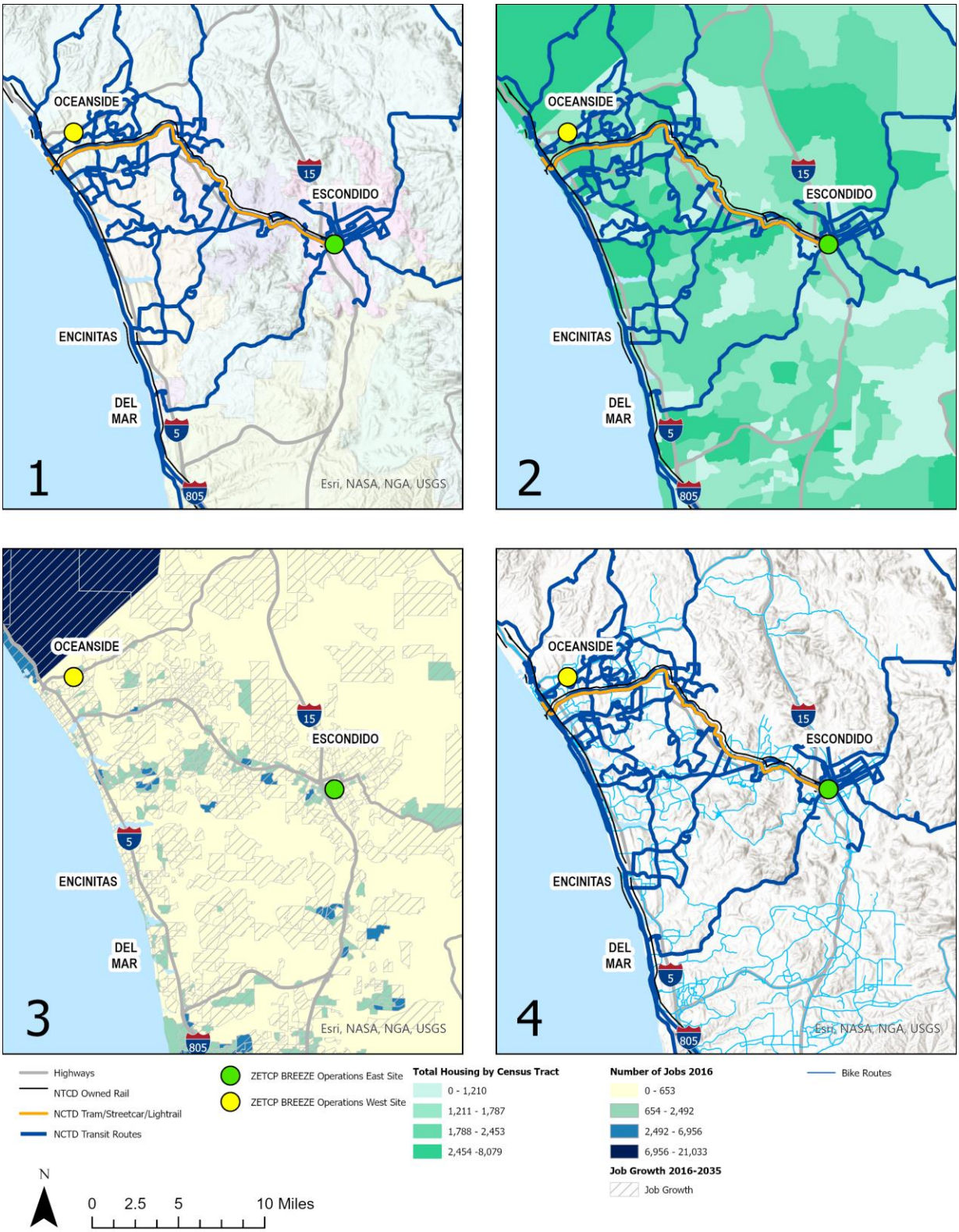
(1) Project locations and impacted transit routes, and municipal boundaries.

(2) Project locations and impacted transit routes mapped over 2020 total housing by census tract.

(3) Project locations mapped over projected employment growth.

(4) Project locations mapped over active transportation infrastructure.

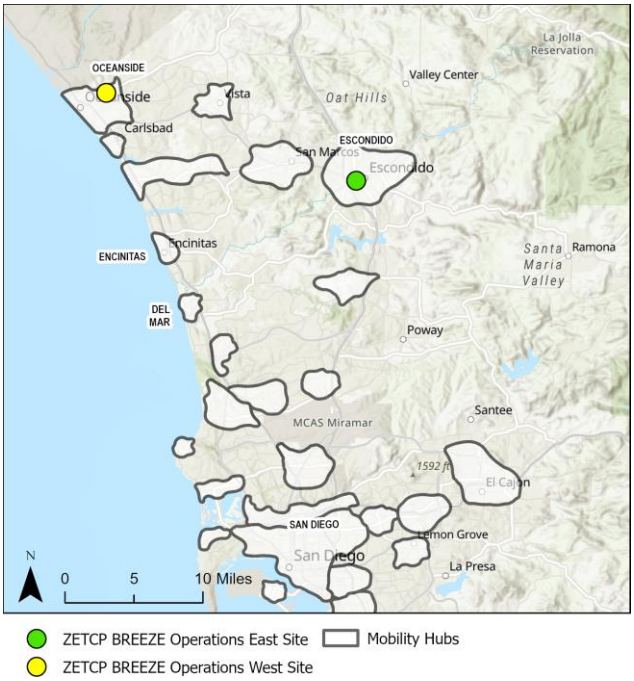
Figure 4 ZETCP Project Locations Maps



Sources: San Diego Open GIS Data Portal (Accessed November 2023), SanGIS GIS Data Warehouse (Accessed November 2023), California Hard to Count (2019), Employment data: SANDAG Series 14 growth forecast, DS38 (SCS), TAZ geography.

The cities of Oceanside and Escondido are both entirely or partially the Mobility Hub areas designated for concentrated future development (Figure 5). Oceanside is expected to see an 8.4 percent increase in total housing units between 2016 and 2050. Additionally, Oceanside is expected to see an increase of 7.4 percent in total jobs. Escondido is expected to see a 25.1 percent increase in total housing units between 2016 and 2050. Escondido is expected to see an increase of 18.2 percent in total jobs.

Figure 5 ZETCP Projects and Mobility Hub Designated Land Use



Source: NCTD, SANDAG

3.4 Emissions Reducing Features

The ZETCP Capital project will provide matching funds to replace two (2) compressed natural gas (CNG) buses with battery electric buses and to replace 23 CNG buses with hydrogen fuel cell buses. Model year 2012 CNG buses will be replaced in 2026 with an anticipated 12-year lifetime. Each bus is estimated to travel approximately 25,000 miles per year.

The ZETCP Capital project will also procure and install on-board equipment needed to make the battery electric buses service-ready, including fareboxes, radios, automatic passenger counters (APCs), camera systems, and driver protection barriers.

Finally, it will procure equipment needed to support the broader transition of NCTD's fleet to electric buses, including an overhead crane at each maintenance facility to remove the battery packs, control systems, and HVAC systems in case of system failures; additional elements include overhead fall protection for serving components on the roof of buses; safety certification; and readiness analysis.

The two electric and 23 fuel cell replacement electric buses are estimated to reduce greenhouse gas emissions by 5,400 metric tons of carbon dioxide-equivalent (CO_2e), at a cost-effectiveness rate of $1,900 in TIRCP funds per metric ton CO_2e including costs for supporting equipment. The buses will reduce fossil fuel use by 1.2 million gallons and eliminate over 13,000 pounds of air pollutant emissions over the life of the buses. Details of the emissions calculations and co-benefits, and cost-effectiveness are provided in Attachment 2. Future benefits that are not yet quantified are the additional electric buses that will be placed into service following the procurement and installation of yard equipment and other readiness activities.

3.5 Job Co-Benefits

Using the California Air Resources Board's (CARB) tool, the zero-emission infrastructure investments proposed in this Allocation Package are estimated to support 356 full-time equivalent jobs. Of those, 60 jobs are supported directly by GGRF funds and 20 are indirectly supported. Additionally, 29 full-time equivalent jobs are induced by the project. The results are presented in Table 23 and details can be found in Attachment 3.

Table 23 Job Co-Benefits

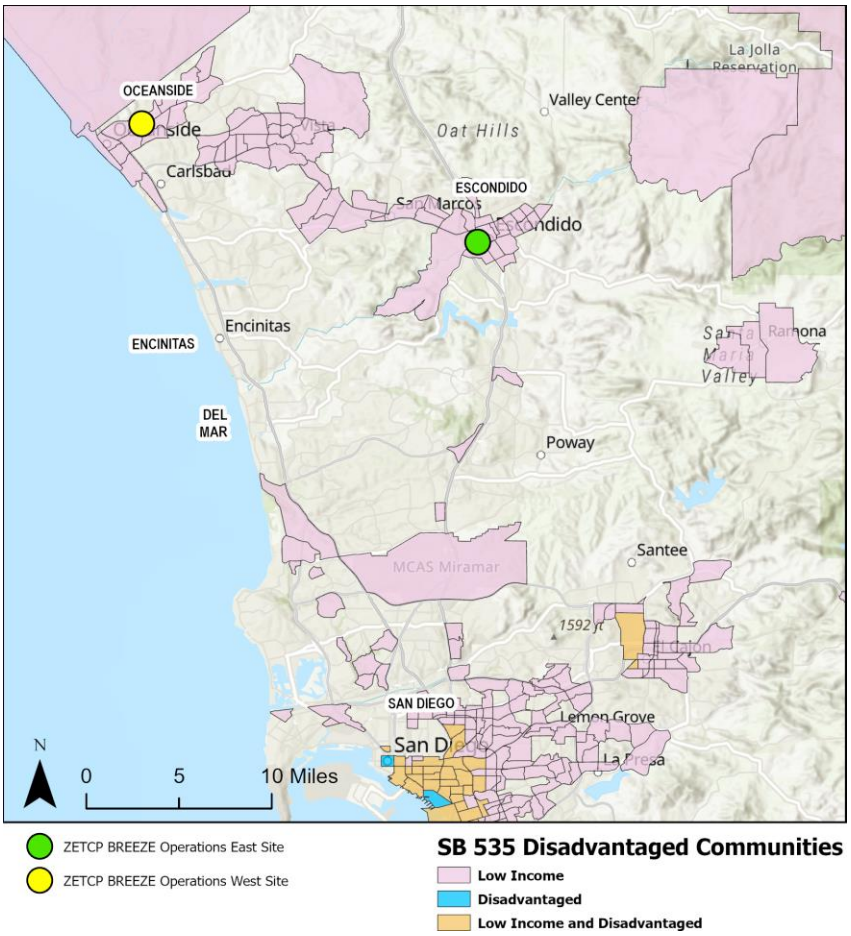
Job Category	Jobs Created
Total Full-time Equivalent Jobs Supported by Project Budget	356.1
Total Full-time Equivalent Jobs Supported by Project GGRF Funds	107.9
Full-time Equivalent Jobs Directly Supported by Project GGRF Funds	59.1
Full-time Equivalent Jobs Indirectly Supported by Project GGRF Funds	20.0
Full-time Equivalent Induced Jobs Supported by Project GGRF Funds	28.8

Source: CARB Job Co-Benefits Modeling Tool

3.6 Disadvantaged Communities Impacts

According to the CCI Priority Populations 2023 tool, the ZETCP Project elements at BREEZE Operations East and West are located within designated low-income communities. As shown in Figure 6, CalEnviroScreen-identified disadvantaged communities in San Diego County are found exclusively in the southern most part of the NCTD transit service area in tracts located within the City of San Diego. Though disadvantaged communities are limited to a specific geographic area, low-income communities are both distributed widely and concentrated. The project elements will directly benefit large areas of low-income communities located in the northern part of the map.

Figure 6 Locations of ZETCP Projects Compared to Disadvantaged, Low Income, or Disadvantaged and Low-Income Communities as Identified by SB 535



Source: NCTD, SANDAG

The ZETCP investment focuses on transitioning from diesel-powered vehicles to zero-emission vehicles, which reduces greenhouse gas emissions, particulate matter, and other toxic contaminant emissions. As a whole, San Diego does not rank high on the average pollution burden percentile or average CalEnviroScreen 4.0 scale, with a ranking of 37.8 percentile. The air pollution percentiles for the two project locations – BREEZE Operations East and BREEZE Operations West – rank nearly 20 percentage points higher than the region as a whole, indicating the potential for air quality benefits resulting from this zero-emissions project.

Table 24 shows that the census tracts for both BREEZE Operations locations have a higher average CalEnviroScreen 4.0 scale than the overall county. BREEZE Operations West has the higher average percentile rankings for pollution burden and diesel-specific pollution.

Table 24 BREEZE Operations Centers and San Diego County Pollution Percentile Rankings

	Pollution (percentile)	Diesel-specific Pollution (percentile)	Overall Percentile
San Diego County	37.8	49.5	**35.2**
BREEZE Operations East	57.6	57.7	**52.4**
BREEZE Operations West	60.4	69.4	**53.5**

Source: CalEnviroScreen 4.0, 2021

By switching buses from diesel-engines to battery-powered engines, diesel-specific pollution will be lowered. While the BREEZE Operations West and East project elements are geographically confined to two site locations, the benefits extend to disadvantaged and low income communities along the bus routes that depend on the facilities to operate. Additionally, by providing better maintenance equipment at these facilities in the form of fall protection and overhead cranes, down-time caused by vehicle maintenance will be reduced. This will lead to an increase in overall service reliability, which is important to disadvantage communities that rely more heavily on transit as the primary form of transportation.

3.7 AB 1550 Benefits

AB 1550 extends climate investments to both disadvantaged and non-disadvantaged communities, providing direct support to low-income households. Since the ZETCP Project elements at BREEZE Operations East and West are located within identified low-income communities, the benefits of AB 1550 would be applicable. The transition from diesel engines to battery-powered engines will enable low-income communities within the project areas to benefit from cleaner air and access to reliable and sustainable transportation options.

3.8 Ridership Benefits

ZETCP capital project elements provide ridership benefits by procuring new equipment for the Zero-Emission Bus transition and new buses for the agency. Ridership benefits include the following:

- **Vehicle Condition**: New vehicles (battery-electric and hydrogen) will provide a better customer experience than the existing CNG buses, which are from model year 2012. The majority of the BREEZE fleet utilizes CNG as its fuel source, and of the active fleet of 152 buses, 145 are CNG vehicles. Battery-electric and hydrogen buses will be more reliable and in better condition by virtue of being new. Both vehicles operate more quietly compared to CNG buses and also offer smoother acceleration and deceleration, providing a more comfortable rider experience.
- **Air Quality**: By operating on electricity or hydrogen, the vehicles contribute little or no carbon emissions. Customers at transit stations and bus stops will not be exposed to exhaust fumes, improving the customer experience. Reduced exposure to pollutants can lower the incidence of respiratory diseases, asthma, cardiovascular issues, and other health

problems associated with poor air quality. The benefits from air quality apply to the buses being replaced and the longer-term zero-emission rail strategy.

4 Detailed Project Description – TIRCP Operating

4.1 Total Ridership

According to the FTA National Transit Database and NCTD's 2022 Annual Agency Profile, transit ridership reported 43,569,438 passenger miles and 5,927,166 unlinked trips (see Table 25). Total ridership was calculated by combining NCTD ridership data with that of the region's other transit provider, San Diego Metropolitan Transit System (SDMTS). Based on these totals, NCTD served 9.3 percent of all transit trips in the region in 2022; for demand responsive transit, NCTD captured over a fourth of all trips for that mode.

Table 25 2022 NCTD Transit Ridership Compared to San Diego Region Transit Ridership

	NCTD	San Diego Region	NCTD's Percent of Region
Passenger Miles	43,569,438	370,839,143	11.7%
Unlinked Trips	5,927,166	63,544,417	9.3%
Transit Mode			
Bus	3,944,001	31,628,587	12.5%
Rail	1,910,789	31,650,288	6.0%
Demand Response	72,376	265,542	27.3%
Total	5,927,166	63,544,417	9.3%

Source: FTA National Transit Database NCTD and SDMTS Transit Agency Data 2022

Note: San Diego Metropolitan Transit System's 2022 Annual Agency Profile includes ridership data for light rail; these data were combined with NCTD's hybrid and commuter rail data to create an overarching "Rail" category. Additionally, SDMTS includes data on commuter bus ridership, these data were combined with NCTD bus data to create the overarching "Bus" category.

4.2 Funding Request

NCTD will use the requested $24 million in fiscal years 2025 and 2026, as shown in Table 26.

Table 26 FY2025 and FY2026 Funding Request

Project Description	FY2025	FY2026	Total
NCTD match for FTA preventive maintenance expenses	$12,714,000	$11,319,158	$24,033,158

4.3 Specific Activities Funded by the Request

The operating funding requested will support preventive maintenance (state of good repair) for all modes operated by NCTD, supporting the retention of existing service levels as shown in Table 27. Over $24 million in preventive maintenance will be invested to retain over 530,000 vehicle revenue hours. Vehicle Revenue Hours (VRH) were taken from monthly NTD statistics and comprised of total VRH from November 2022 – October 2023.

Table 27 TIRCP Operating Projects Funding Allocation

Expenditure Type	Service Retention	Revenue Hours Supported (VRH)
Preventative Maintenance	$24,033,158	532,905

Source: NTD Monthly Statistics

4.4 Riders' Benefit

TIRCP operating projects will benefit transit-dependent riders by enhancing service reliability and safety. The proposed projects will fund regular vehicle maintenance so that there are fewer road calls that can be highly disruptive to a customer's travel. Improving travel reliability increases customer satisfaction and in turn, attracts more ridership.

5 Summary Funding Table

Submitted as an Excel attachment is the SB 125 Fund Request. Note that the Administrative line items by funding category have been added to the summary funding table.

6 Regionally Representative Operator Data

6.1 Existing Fleet and Asset Management Plans

The Innovative Clean Transit Plan was approved by the NCTD Board of Directors on June 18th, 2020, and submitted to the state shortly thereafter. This plan fulfills the requirement to provide asset management information as outlined in the guidance.

6.2 Revenue Collection Methods and Costs

*NCTD collects fare revenue via cash, check/money order, debit/credit cards, retail store locations, and accounts receivable through eight sales channels (seven PRONTO based, and one non-PRONTO based) and mode of service location. Not every fare system sales channel accepts every payment type, nor can every fare product be purchased at every fare system sales channel. There are six different ticket media, which ability to purchase differs by sales channel and service mode. Table 28 through *Fare revenue by fare product information is not available*

Table 33 provides a summary of NCTD's revenue collection methods and costs summarized by payment types, fare system channels, fare media, modes of service, etc.

Table 28 Payment Type Availability by PRONTO and Non-PRONTO Regional Fare System Sales Channels

	PRONTO Regional Fare System Sales Channels							Non-PRONTO
	Ticket Vending Machines	Transit Center Ticket Office	Mobile App	Customer	Institutional Website	Retail Store	CRM Software	ADA-Online Scheduling/ Wallet
Cash	Accepted	Accepted	Not Accepted	Not Accepted	Not Accepted	Generally Accepted	Not Accepted	Not Accepted
Check/ Money Order	Not Accepted	Accepted	Not Accepted	Not Accepted	Not Accepted	Generally Accepted	Not Accepted	Not Accepted
Debit/ Credit Card	Accepted	Accepted	Accepted	Accepted	Accepted	Generally Accepted	Accepted	Accepted
Accounts Receivable	Not Accepted	Accepted	Not Accepted	Not Accepted	Accepted	Not Accepted	Not Accepted	Not Accepted

Table 29 PRONTO and Non-PRONTO Fare Media Availability by Sales Channel

	PRONTO Fare Media Availability by Sales Channels						Non-PRONTO
	Ticket Vending Machines	Transit Center Ticket Office	Mobile App	Customer Website	Institutional Website	CRM Software	ADA-Online Scheduling/ Wallet
Paper Tickets	Available	Available	Not Available	Not Available	Not Available	Not Available	Not Available
Transit Passes (PRONTO Card)	Available	Available	Not Available	Available	Available	Available	Not Available
Transit Passes (Mobile App)	Not Available	Not Available	Available	Not Available	Not Available	Available	Not Available
Stored Value (PRONTO Card)	Available	Available	Not Available	Available	Available	Available	Not Available
Stored Value (Mobile App)	Not Available	Not Available	Available	Not Available	Not Available	Available	Not Available
Scratch-off Tickets	Not Available	Available	Not Available	Not Available	Not Available	Not Available	Not Available
ADA-Online Scheduling/Wallet	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Available

Table 30 Fare Product Acceptance by Mode of Service

	BREEZE (Fixed Route)	LIFT (ADA Service)	FLEX (Deviated Fixed Route)	COASTER (Commuter Rail)	SPRINTER (Hybrid Rail)
Cash	Accepted	Accepted	Accepted	Not Accepted	Not Accepted
Paper Ticket	Accepted	Accepted	Accepted	Accepted	Accepted
Transit Pass	Accepted	Not Accepted	Accepted	Accepted	Accepted
Stored Value	Accepted	Not Accepted	Accepted	Accepted	Accepted
Online Booking Wallet	Not Accepted	Accepted	Not Accepted	Not Accepted	Not Accepted
Scratch-off Ticket	Accepted	Not Accepted	Not Accepted	Accepted	Accepted

Table 31 FY2023 Revenue Collection Costs

Collection Costs	
Fare Collection	$757,460
Fare Enforcement/Code Compliance	$265,061
Total	$1,022,521

Table 32 FY2023 Total Revenue Collected

Fare Revenue	
Total Fare Revenue (unaudited)*	$10,194,000

**Fare revenue by fare product information is not available*

Table 33 Expected Capital Expenditures on Fare Technology

Projects	FY 24	FY25	FY26	FY27	FY28	Total
Open Payment Validation	$200,000					$200,000
Institutional Autoload and Invoicing		$5,384				$5,384
LECIP Fare box integration		$100,000				$100,000
Virtual NFC-Closed Loop and Mobile app enhancements		$230,963	$230,963			$461,926
Fare System Enhancements (TBD)			$150,000	$150,000	$150,000	$450,000
Customer Service Improvements TVMs	$650,000	$250,000	$250,000	$250,000		$1,400,000
Customer Service Improvements Validators	$92,826	$150,000	$100,000			$342,826
Convention Center Platform Fare Equipment		$495,000				$495,000
Total	**$942,826**	**$1,231,347**	**$730,963**	**$400,000**	**$150,000**	**$3,455,136**

6.3 Existing Service Plan and Planned Service Changes

The most recent Existing Service Plan is NCTD's Service Implementation Plan FY2024 – FY2033. The plan was presented June 2023 and includes strategic priorities, FY2022 performance, and ridership growth plans for all NCTD services – BREEZE fixed-route buses, SPRINTER hybrid rail, COASTER commuter trains, LIFT ADA paratransit, and FLEX specialized transportation services.

The FY2023 budget was developed to support strategic investments that can be implemented over a five-year period that will foster increased ridership, increased customer revenues, support the Zero Delay program, and address state of good repair and capital priority needs. Within the ten-year Service Implementation Plan, there are four implementation items mentioned for existing service:

- Implement 30-minute frequencies on the COASTER
- Implement 15-minute frequencies on the SPRINTER
- Implement improved BREEZE bus service frequencies
- Implement new first/last-mile service.

The proposed service changes include increasing BREEZE and SPRINTER frequencies from every 30-minutes to 15-minutes on core BREEZE routes, increase COASTER frequencies with expanded peak and midday trips, pilot FLEX on-demand microtransit service to fulfill first/last mile connections to high-frequency corridors, and maintain quality LIFT service. The rest of the Service Implementation Plan can be found at this link. NCTD has already submitted GTFS to the State of California, and the rest of the GTFS data can be found at this link in California Open Data Portal.

6.4 Expenditures on Safety and Security

Four of the proposed project elements are directly related to increasing and improving safety and security for NCTD. Three of them are related to TIRCP Capital projects and one for ZETCP projects. Additionally, NCTD spends $4 million annually on a contract with the San Diego County Sheriff's Department for the Transit Enforcement Security Unit, which provides security services for NCTD. NCTD's FY2024 operating budget includes $6.1 million for security oversight. See Table 34 for an overview of safety and security expenditures. The update on NCTD System Safety and Security can be found at this link.

Table 34 Summary of Proposed Project Expenditures on Safety and Security

	Project	Expense
TIRCP Capital	Security System Improvements	$220,000
TIRCP Capital	CCTV System Equipment	$2,000,000
TIRCP Capital	Text-based Customer Security Alerts	$330,000
ZETCP	ZEB Transition Support	$4,060,000

6.5 Opportunities for Service Restructuring, Consolidation, and Efficiency

NCTD works collaboratively with its partners to optimize transit services in the region. NCTD and the MTS use the same fare system to ensure a seamless transition between services for passengers. Similarly, NCTD and the Amtrak Pacific Surfliner operate under a Rail2Rail agreement that allows passengers in possession of a ticket for either mode to ride the other. This provides passengers with more transportation options and emphasizes the collaboration present among transit services in the San Diego region.

NCTD and MTS also utilize shared operational resources to enhance efficiencies, including the RTMS and Giro's HASTUS scheduling software.