

FY2022 Annual Report on Performance and Expenditures

FY2022 and FY2023 Unified Planning Work Program for Regional Transportation Planning



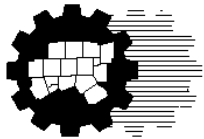
Transportation Department
North Central Texas Council of Governments

What is NCTCOG?

The **North Central Texas Council of Governments** (NCTCOG) is a voluntary association of, by, and for **local governments** within the 16-county North Central Texas Region. The agency was established by state enabling legislation in 1966 to assist local governments in **planning** for common needs, **cooperating** for mutual benefit, and **coordinating** for sound regional development. Its purpose is to strengthen both the individual and collective power of local governments, and to help them recognize regional opportunities, resolve regional problems, eliminate unnecessary duplication, and make joint regional decisions – as well as to develop the means to implement those decisions.

North Central Texas is a 16-county **metropolitan region** centered around Dallas and Fort Worth. The region has a population of more than 7 million (which is larger than 38 states), and an area of approximately 12,800 square miles, 19 independent school districts, and 25 special districts.

NCTCOG's structure is relatively simple. An elected or appointed public official from each member government makes up the **General Assembly** which annually elects NCTCOG's **Executive Board**. The Executive Board is composed of 17 locally elected officials and one ex-officio non-voting member of the legislature. The Executive Board is the policy-making body for all activities undertaken by NCTCOG, including program activities and decisions, regional plans, and fiscal and budgetary policies. The Board is supported by policy development, technical advisory and study **committees** – and a professional staff led by **R. Michael Eastland**, Executive Director.



NCTCOG's offices are located in Arlington in the Centerpoint Two Building at 616 Six Flags Drive (approximately one-half mile south of the main entrance to Six Flags Over Texas).

North Central Texas Council of Governments

P.O. Box 5888

Arlington, Texas 76005-5888

(817) 640-3300

FAX: (817) 640-7806

Internet: <http://www.nctcog.org>

NCTCOG's Department of Transportation

Since 1974, NCTCOG has served as the Metropolitan Planning Organization (MPO) for transportation for the Dallas-Fort Worth area. NCTCOG's Department of Transportation is responsible for the regional planning process for all modes of transportation. The department provides technical support and staff assistance to the Regional Transportation Council and its technical committees, which compose the MPO policy-making structure. In addition, the department provides technical assistance to the local governments of North Central Texas in planning, coordinating, and implementing transportation decisions.

Prepared in cooperation with the U.S. Department of Transportation (Federal Highway Administration and Federal Transit Administration) and the Texas Department of Transportation.

The contents of this report reflect the views of the authors who are responsible for the opinions, findings, and conclusions presented herein. The contents do not necessarily reflect the views or policies of the Federal Highway Administration, the Federal Transit Administration, or the Texas Department of Transportation.

FY2022 Annual Report on Performance and Expenditures

*FY2022 and FY2023
Unified Planning Work Program for
Regional Transportation Planning*

December 2022

Regional Transportation Council

The Transportation Policy Body for the North Central Texas Council of Governments
(Metropolitan Planning Organization for the Dallas-Fort Worth Region)



Transportation Department
North Central Texas Council of Governments

NCTCOG Executive Board 2022-2023

President Andrew Piel Councilmember, City of Arlington	Director B. Glen Whitley County Judge, Tarrant County	Director Todd Little County Judge, Ellis County	Director Janet DePuy Mayor Pro Tem, City of Richardson
Vice President Bill Heidemann Mayor, City of Corinth	Director Cara Mendelsohn Councilmember, City of Dallas	Director Jorja Clemson Councilmember, City of Grand Prairie	Director Linda Martin Mayor, City of Euless
Secretary-Treasurer Chris Hill County Judge, Collin County	Director Carlos Flores Councilmember, City of Fort Worth	Director Clyde Hairston Mayor, City of Lancaster	Director Victoria Johnson Councilmember, City of Burleson
Past President David Sweet Rockwall County	Director Bobbie Mitchell Commissioner, Denton County	Director Rick Carmona Mayor, City of Terrell	Ex Officio, Non-Voting Member Glenn Rogers Member of the Texas Legislature
Director Clay Jenkins County Judge, Dallas County	Director J.D. Clark County Judge, Wise County		Executive Director R. Michael Eastland

Regional Transportation Council 2022-2023

Duncan Webb, Chair Commissioner, Collin County	Janet DePuy Mayor Pro Tem, City of Richardson	William Meadows Board Member, Dallas Fort Worth International Airport
Gyna Bivens, Vice Chair Mayor Pro Tem, City of Fort Worth	Andy Eads County Judge, Denton County	Cara Mendelsohn Councilmember, City of Dallas
Clay Lewis Jenkins, Secretary County Judge, Dallas County	Gary Fickes Commissioner, Tarrant County	Ed Moore Councilmember, City of Garland
Daniel Alemán, Jr. Mayor, City of Mesquite	George Fuller Mayor, City of McKinney	Omar Narvaez Councilmember, City of Dallas
Steve Babick Mayor, City of Carrollton	Raul H. Gonzalez Councilmember, City of Arlington	Jim R. Ross Mayor, City of Arlington
Dennis Bailey Commissioner, Rockwall County	Barry L. Gordon Mayor, City of Duncanville	David Salazar, P.E. District Engineer, Texas Department of Transportation, Fort Worth District
Rick Bailey Commissioner, Johnson County	Rick Grady Councilmember, City of Plano	Chris Schulmeister Councilmember, City of Allen
Adam Bazaldua Councilmember, City of Dallas	Lane Grayson Commissioner, Ellis County	Jeremy Tompkins Councilmember, City of Euless
Elizabeth M. Beck Councilmember, City of Fort Worth	Mojoy Haddad Board Member, North Texas Tollway Authority	T. Oscar Trevino, Jr., P.E. Mayor, City of North Richland Hills
J.D. Clark County Judge, Wise County	Ron Jensen Mayor, City of Grand Prairie	William Tsao, P.E. Citizen Representative, City of Dallas
Ceason Clemens, P.E. District Engineer, Texas Department of Transportation, Dallas District	Brandon Jones Mayor Pro Tem, City of Lewisville	Chris Watts Councilmember, City of Denton
Dianne Costa Board Member, Denton County Transportation Authority	John Keating Mayor Pro Tem, City of Frisco	Chad West Councilmember, City of Dallas
Michael D. Crain Councilmember, City of Fort Worth	Brad LaMorgese Councilmember, City of Irving	B. Glen Whitley County Judge, Tarrant County
Theresa Daniel, Ph.D., Chair Commissioner, Dallas County	Mike Leyman Councilmember, City of Mansfield	Michele Wong Krause Chair, Dallas Area Rapid Transit
Jeff Davis Chair, Trinity Metro	B. Adam McGough Councilmember, City of Dallas	Michael Morris, P.E. Director of Transportation, NCTCOG

Surface Transportation Technical Committee

Ceason Clemens, Chair
District Engineer, Texas Department of Transportation, Dallas District

Table of Contents

I. Task 1 – Administration and Management	1
1.01 Community Outreach.....	1
1.02 Program and Policy Administration.....	7
1.03 Fiscal Management and Information Systems	11
1.04 Computer System Applications and Data Management.....	13
II. Task 2 – Transportation Data Development and Maintenance	19
2.01 Travel Forecasting Support	19
2.02 Transportation Data Development.....	25
2.03 Demographic Data and Forecasts	28
III. Task 3 – Short-Range Planning and Programming, and Air Quality and Transit Operations	33
3.01 Transportation Project Programming	33
3.02 Regional Air Quality Planning	36
3.03 Air Quality Management and Operations.....	39
3.04 Public Transportation Planning.....	50
3.05 Transit Management and Operations	57
IV. Task 4 – Metropolitan Transportation Plan	67
4.01 Metropolitan Transportation Planning	67
4.02 Coordination of Transportation and Environmental Planning Processes.....	71
4.03 Ensuring Equity, Nondiscrimination, and Environmental Justice in MPO Planning/Program Activities	77
4.04 Performance-Based Planning and Coordination	79
4.05 Understanding Public Return on Investment for Transportation Funding	80
4.06 Regional Passenger Rail Planning and Evaluation Process Development.....	80
V. Task 5 – Special Studies	85
5.01 Regional Transportation Studies	85
5.02 Subarea Studies and Local Government Assistance	97
5.03 Land-Use/Transportation Initiatives	102
5.04 Transportation Asset Management.....	118
5.05 Congestion Management Planning and Operations.....	122
5.06 Regional Freight Planning	137
5.07 Transportation System Security and Emergency Preparedness	140
5.08 Roadway and Railroad Safety	141
5.09 Regional Aviation Planning and Education	143
5.10 Regional Military and Community Coordination	147

5.11 Transportation Technology and Innovation Program	152
5.12 Red River Navigation System Feasibility Study	157
5.13 North Texas Center for Mobility Technologies	157
VI. Funding Summaries	163
Transportation Planning Funds (FY2022)	165
Transportation Planning Funds (FY2023)	165
Transportation Planning Funds (Two-Year Total)	166
Transportation Planning Funds (Year One – FY2022)	167
Congestion Mitigation and Air Quality Improvement Program Funds (Year One – FY2022)	168
Department of Defense Funds (Year One – FY2022)	169
Department of Energy Funds (Year One – FY2022)	170
Environmental Protection Agency Funds (Year One – FY2022)	171
Federal Highway Administration Funds (Year One – FY2022)	172
Federal Transit Administration Funds (Year One – FY2022)	173
Local Funds (Year One – FY2022)	174
North Central Texas Council of Governments Local Funds (Year One – FY2022)	175
North Texas Tollway Authority Funds (Year One – FY2022)	176
Regional Toll Revenue Funds (Year One – FY2022)	177
Surface Transportation Block Grant Program Funds (Year One – FY2022)	178
Texas Commission on Environmental Quality Funds (Year One – FY2022)	179
Texas Department of Transportation Funds (Year One – FY2022)	180
United States Department of Transportation Funds (Year One – FY2022)	181
Tarrant Water Development Board (Year One – FY2022)	182
Summary of Funds and Expenditures FY2022 and FY2023	183

I. Task 1 – Administration and Management

Coordination, communication, and management tasks that are essential to maintaining the metropolitan planning process comprise the subtasks in the area of Administration/Management. Overall direction of planning activities and grant administration tasks such as purchasing, contract development, and auditing are included. The preparation and circulation of information relevant to regional transportation policy is a major focus of this element. This includes support to the Regional Transportation Council (RTC), associated technical committees, and the North Central Texas Council of Governments (NCTCOG) Executive Board. In addition, public involvement and outreach activities as emphasized in the Fixing America's Surface Transportation (FAST) Act are conducted under this element.

1.01 Community Outreach

This annual Work Program subtask will be conducted in FY2022 and FY2023 and includes staff activities in support of NCTCOG's Transportation Department Public Involvement, Outreach, and Education Program; monitoring of the regional transportation system performance and reliability; business community outreach; legislative outreach; internet/intranet outreach and support improvements; and public education campaigns and services to support transportation and air quality programs/policies. Communications outreach tools such as stock images, video subscriptions for music beds, video hosting and editing platforms, survey tools, a digital asset management tool to store and tag photos and videos, communications campaign analysis software, and an email campaign subscription are included in a cost allocation plan. Costs are allocated to all projects, including projects funded with Transportation Planning Funds and other funding sources. These costs are included in the funding summaries for each task.

Work Performed and Status: During FY2022, contracts for online communications tools and website subscriptions were renewed, including SurveyMonkey. A Getty Images subscription for the Department was purchased, as well as MediaValet, a digital asset management service.

The cost allocation plan was used to support work activities. Work will continue in FY2023.

Efforts described below include activities that may be excluded from the cost allocation plan and charged directly to the funding sources identified.

Public Involvement, Publications, and Legislative Support

Transportation Planning Funds

Staff will appear regularly at community and business events to discuss transportation and air quality matters. Efforts to ensure full and fair participation in the transportation decision-making process consistent with Title VI and environmental justice principles are implemented through a Public Participation Plan. Anticipated products include:

- Regular opportunities, including public meetings, online opportunities, stakeholder engagement, a virtual public engagement platform, and listening sessions, among others, for North Texans to learn about and provide input on transportation and air quality plans, programs, and policies;

- Summaries of public input provided to the Regional Transportation Council (RTC);
- Appearances at neighborhood meetings, professional association meetings, business community/chamber of commerce meetings, and other events;
- Dynamic outreach and communications plans to continually enhance public involvement;
- Enhanced multimedia and social media presence;
- Communications through email services on transportation planning projects, as well as other projects supported through the Unified Planning Work Program (UPWP);
- Press releases and other media relations activities;
- Department newsletters, including Local Motion and Mobility Matters, among others;
- Progress North Texas state-of-the-region report and other reports and brochures;
- Contributions to agency newsletters;
- Communications pieces that explain the transportation planning process and opportunities to provide input;
- Summaries of activity in the Legislature and Congress relating to Metropolitan Planning Organization functions;
- Legislative testimony as a resource witness;
- Identification of issues or challenges related to implementation of the Metropolitan Transportation Plan for the attention of the Regional Transportation Council in order for the Council to develop its State and federal legislative programs; and
- Regular updates to policy and technical committee members on legislative initiatives related to RTC priorities.

Work Performed and Status: Public input opportunities were one of several avenues North Texans could learn about and offer input on transportation in FY2022. NCTCOG held 10 public input opportunities. In accordance with the procedures outlined in the Public Participation Plan, copies of the presentations and documents presented for review were posted online, and a recorded video presentation was also provided. As an accessibility measure for individuals without a connection to the Internet, print copies of presentation materials were made available upon request.

For both public meetings and online input opportunities, comments and written summaries were made available on the NCTCOG website. Summaries, which included public comments, were included on Surface Transportation Technical Committee (STTC) and Regional Transportation Council (RTC) meeting agendas.

Approximately 12,000 notices were sent by mail and email for each public meeting and online public input opportunity. Also, more than 140 libraries in the Metropolitan Planning Area received public meeting and online input opportunity flyers to make available to patrons. Additionally, flyers were provided to municipal offices. Notices for public meetings and online public input opportunities were placed in area newspapers, including minority publications, and translated ads were published in Spanish newspapers and a Vietnamese newspaper. Online and social media notices of input opportunities supplemented print notifications.

The NCTCOG Transportation Department participated in 11 community events to communicate information about multiple regional transportation and air quality programs and issues. NCTCOG also continued to coordinate with local cities, transit partners, community organizations, and nonprofits to maintain relationships and plan for opportunities to share transportation and air quality information in the future.

The RTC approved an amendment to the Public Participation Plan in May. The plan outlines how enhanced outreach efforts help address changing demographics and communications trends

while ensuring federal public involvement requirements are met. The amended plan updated demographics and staff activities in the Language Assistance Plan in Appendix B and clarified elements of Appendix C, which outlines the Department's Title VI Complaint Procedures in both English and Spanish.

Proactive media outreach efforts included the distribution of 30 press releases on major projects and programs to approximately 200 reporters at local, State and national media outlets, including minority publications. Press releases were emailed to media contacts and interested parties and were posted to the Department's online newsroom. In addition, multiple interviews were conducted with local and national print, radio and television media, as well as podcasts. The media list is updated continuously.

The Department also provided news and updates in Local Motion, its monthly newsletter, and Mobility Matters, a semiannual publication, as well as through contributions to agency newsletters. Local Motion was converted to an email newsletter, which was distributed monthly to more than 8,500 subscribers, and posted online. Mobility Matters was distributed to contacts on the public involvement mailing list, and the online version was also shared with regional partners. The Department also contributed articles to an agency newsletter, What's New at NCTCOG, which is published online and distributed to partners and interested parties via email. Staff continued to distribute several other internal and external publications in print and online. A series of fact sheets for the general public were published in print and online.

Additionally, the Department published Progress North Texas, its annual state-of-the-region report, which provided an update on transportation and air quality developments in the Dallas-Fort Worth area over the previous year. The report's theme was "Transportation in the Age of COVID-19." It examined efforts in several areas, including mobility, growth, roadway, active transportation and transit improvements, funding, goods movement, aviation, safety, air quality, and public involvement. Approximately 7,000 copies were mailed to partners and residents throughout the region. The Department continued to reach the public through the report's webpage, and copies were provided by mail and electronically to partners throughout the year.

To complement traditional outreach, staff maintained a presence in social media for the NCTCOG Transportation Department, using Facebook, Twitter, YouTube, and Instagram to post regular updates and interactive content in accordance with the Department social media policy. Department workshops, webinars, and virtual outreach opportunities were shared through the Meetup social media platform, and links to the Department's publications were posted to social media. Monthly social media metrics were tracked, and reports were created for analysis by staff. Data from these reports is continuously used to improve the Department's social media strategy and provide more engaging content to increase followers.

Finally, legislative assistance was provided throughout FY2022 to State Legislative and Congressional offices, as well as policy and technical committee members. Information was provided, as requested, on policy matters related to the metropolitan planning organization. In preparation for the State Legislative session, staff, in coordination with elected officials, prepared the RTC's Legislative Program for the 88th Texas Legislature. Policy issues and challenges related to the implementation of the Metropolitan Transportation Plan were identified by staff and brought to the attention of the RTC. Tracking actions in the United States Congress were ongoing, and information on federal issues and rulemaking was relayed to policy and technical committee members as necessary.

The subscription to Constant Contact was renewed, and a contract for a new virtual public engagement platform, Public Input, commenced.

Transportation Planning Funds were used to support work activities. Work will continue in FY2023.

Other Funding Sources

North Central Texas Council of Governments Local funds will be utilized to support activities that are not eligible for federal reimbursement. Such items may include:

- Meal expenses;
- Travel expenses; and
- Special meetings with State or federal elected officials.

Work Performed and Status: No funds were expended in FY2022. Work will continue in FY2023.

Internet/Intranet Outreach and Support

Transportation Planning Funds

This element is ongoing throughout both FY2022 and FY2023, providing technical support for regional committees, public information and participation efforts, and the transportation planning process. This includes the ongoing creation, maintenance, and modernization of web resources presented externally and internally on the internet/intranet sites. Anticipated products include:

- Website assessment and improvement of visual architecture, accessibility, and usability;
- Website edits, updates, and maintenance;
- Website content development, including articles, public information resources, and program area updates;
- Websites and applications available on the most common browsers and an improving mobile experience;
- Web pages and applications audited and reviewed for internal standards/branding and security (QA/QC);
- Web page performance reports, including analytic assistance;
- Web application development and support;
- Standards for search engine optimization;
- Software upgrades, including evaluation and migration of web assets and content to new Kentico content management platform;
- Microsoft ERP: CRM and SharePoint Online D365 development/administration; and
- Internal training opportunities.

Work Performed and Status: Oversight, management, and execution of three significant migrations of online content were conducted in FY2022.

First, migration to a new Intranet, based in Microsoft, required an audit of more than 1,000 pages, sites, files, and related resources. An Intranet Department Hub homepage and development framework for migration was created, and migration of content for staff is ongoing. This migration included connections to various program area channels in Microsoft Teams, SharePoint Online sites, an Extranet Hub for partner collaboration, and document libraries from across the agency.

Second, migration to a new CRM system required coordinating tasks and workflows associated with the Department's current email management platform, Constant Contact, to a new platform, Public Input. An audit and review of tasks and contacts, including residents, partners, officials, and businesses, was conducted to reduce duplicates, assign oversight among staff, and identify strategic uses for Public Input.

Finally, the Department assisted the Agency in a collaborative migration of its Internet Content Management System. This included the inspection and scraping of nearly 1,000 pages, incorporation of new code to track pages through Google Analytics IV (Firebase), updates to Siteimprove tracking, and evaluation of Siteimprove Pre-Publishing workflows.

Efforts to train staff, improve staff and user security, and enhance visitor usability continued throughout the fiscal year.

Transportation Planning Funds were used to support work activities and work will continue in FY2023.

Transportation and Air Quality Education and Outreach

Other Funding Sources

The North Central Texas Council of Governments (NCTCOG) will continue to implement strategic communications efforts to educate and inform the region on transportation- and air quality-related issues, including improvement strategies, funding opportunities, training initiatives, and new programs/policies. Major efforts will focus on transportation and air quality education, outreach, and engagement programs. This work element will be supported through Surface Transportation Block Grant Program funds, Congestion Mitigation and Air Quality Improvement Program funds, and Transportation Development Credits. Paid media will be utilized when needed. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Regional air quality and transportation campaigns (including Air North Texas and other efforts that support transportation and air quality improvement strategies) utilizing communication strategies, including, but not limited to, website/web pages, paid education campaigns, social and electronic media, videos, photography, email and blog updates, air pollution alerts, flyers, brochures, and outreach and associated displays;
- Integrated campaign resources for use by local governments, the business community, education institutions, and other stakeholders/interested parties;
- Communication and education/outreach services for local governments, as well as other NCTCOG Transportation Department programs/campaigns;
- Procurement, inventory, and distribution of educational items;
- Performance measure strategies and analytics for transportation and air quality communication initiatives;
- Regional growth of overall efforts through regular meetings and conference calls with the Air North Texas Coalition, stakeholder groups, and other partners, including State, federal, and local interest groups about the campaign and other air quality education initiatives;
- New partner recruitment for transportation and air quality campaigns; and
- Partner recognition for work on programs such as Air North Texas.

Work Performed and Status: During FY2022, NCTCOG staff continued to develop and implement or support regional air quality and transportation campaigns and related

communications strategies for initiatives such as Air North Texas. The Air North Texas air quality awareness campaign continued to be implemented through paid education, social media, educational items, and partner coordination. Outreach items were provided for distribution at in-person events. Clean Air Corner, the Air North Texas blog, was distributed monthly to more than 5,500 subscribers. Ozone alerts issued by the Texas Commission on Environmental Quality were monitored to ensure Air North Texas themed Ozone Action Day and Particulate Matter Alert messages were disseminated to interested parties. On August 3, 2022, Air North Texas celebrated the 13th annual Clean Air Action Day, which staff implemented with regional partners.

For Clean Air Action Day, educational materials and promotional ideas were provided to 35 Air North Texas partners, including cities, counties, and transportation agencies. More than 770 North Texans made over 7,200 commitments to participate in Clean Air Action Day due to these efforts. Also, staff produced air quality educational materials such as promotional items and other outreach pieces for partners.

Staff continued implementing a Transit Pandemic Recovery Campaign in conjunction with Dallas Area Rapid Transit, Denton County Transportation Authority, and Trinity Metro to help increase transit ridership. Campaign tactics and phases were implemented, and materials to educate North Texans about transit safety protocols were promoted for use by the transit agencies and local partners. An online portal for partners was set up and promoted. New campaign creative to encourage transit ridership among workers returning to the office was created. NCTCOG staff reviewed campaign results, including those implemented by the transit agencies, and began outreach efforts to engage the business community. NCTCOG and the three transit agencies met monthly to manage the campaign's implementation.

Communication services continued for other Department transportation and air quality-related programs and campaigns, such as Dallas-Fort Worth Clean Cities, the Try Parking It commuter tracking program, GoCarma toll discount outreach, and bicycle/pedestrian education. In addition, staff uploaded recordings of meetings to online platforms and the Department's YouTube channel for public viewing. Other materials developed and/or procured included graphics, outreach campaign materials, program-related video series/webinars, and educational items.

Elements of NCTCOG Transportation Department communication campaigns were tracked and reviewed to improve and refine campaign performance measures. For the Air North Texas campaign, 42 Ozone Action Day Alerts and 29 Weekend Forecasts were distributed to subscribers. Air North Texas website traffic was monitored, and the website recorded more than 14,000 users and 19,000 sessions for the fiscal year.

Contact with other State, federal, and local air quality partners to collaborate on consistent messaging and themes was maintained. For Air North Texas, NCTCOG staff continued to develop and grow relationships with a wide range of regional partners known as the Air North Texas Coalition. Staff planned and hosted six Coalition conference calls to coordinate the regional air quality awareness campaign.

In November 2021, several Coalition members were recognized for their notable contributions to the campaign as part of the partners' annual reporting process.

Congestion Mitigation and Air Quality Improvement Program funds (CSJs 0918-00-297 and 0918-00-369) and Transportation Development Credits were used to support work activities. This project is ongoing and work will continue in FY2023.

1.02 Program and Policy Administration

Management and administrative activities conducted by MPO staff support operations of the NCTCOG Transportation Department and implementation of all projects. Activities such as development, monitoring, and coordination of the Unified Planning Work Program and necessary modifications; preparation of the Annual Performance and Expenditure Report; personnel and recruitment support; risk assessment; process development; committee support; legal review of agreements and policies; provision of furniture and consumable supplies for staff; and general office management are included in a cost allocation plan. Costs are allocated to all projects, including projects funded with Transportation Planning Funds and other funding sources. These costs are included in the funding summaries for each task.

Work Performed and Status: Three sets of modifications to the FY2022 and FY2023 Unified Planning Work Program (UPWP) received NCTCOG committee, and State and federal approvals during FY2022. These modifications reflected new initiatives, project modifications, and funding adjustments. The modifications were presented to the public for review and comment prior to seeking committee and funding agency approvals. Work also began on a fourth set of proposed modifications for approval in early FY2023. The FY2021 Report on Annual Performance and Expenditures was also developed. Performance reports on the accomplishment of Transportation department goals established for FY2021 were also prepared and submitted to the NCTCOG Executive Director's office, as well as new goals for FY2022, for compilation into Agency documents to be provided to a number of agencies, including the Office of the Governor.

Monthly meetings of the Regional Transportation Council (RTC) and the Surface Transportation Technical Committee (STTC) were held. A call-in number for each meeting of the RTC was provided to allow the public an opportunity to speak to the members of the RTC on the respective meeting's agenda items. A video recording of the Regional Transportation Council meetings was available online for public access following each meeting. The RTC and STTC meeting agendas contained both action and information items for the committees' consideration and were posted online. Staff continued to prepare information for these meetings, develop meeting minutes, post items to the website, carry out committee actions, and respond to requests for additional information as needed. Staff also continued to support the submittal each month of transportation items to the NCTCOG Executive Board for consideration.

Staff recruitment efforts and personnel actions were conducted throughout the year (i.e., advertising; candidate interviews; processing of new hires, staff separations, internal promotions; maintenance of databases, and development of job descriptions). General office management activities also continued to be carried out (i.e., distribution of incoming mail, office assignments and moves, completion of timesheets, and the conduct of management and staff meetings). During FY2022, the Department's Continuity of Operations Plan was also updated.

Required risk assessment processes continued to be refined for the department's contracting activities. Staff also completed discretionary risk assessments for review and assignment of risk level to potential funding opportunities and completed numerous federally required risk assessments for assignment of risk level and identification of risk mitigation factors for subrecipient awards. Assistance was provided as needed to respond to internal and external audit and program reviews. Legal review of Regional Transportation Council related agreements, memorandums of understanding, and policies continued.

The cost allocation plan was used to support the above work activities. Work will continue in FY2023.

Program administration efforts described below include activities that may be excluded from the cost allocation plan and charged directly to the funding sources identified.

Program Administration

Transportation Planning Funds

This element includes management and administrative activities that directly support the NCTCOG Transportation Department's role as the Metropolitan Planning Organization and fulfillment of responsibilities outlined in regulations governing the administration of Federal Highway Administration Transportation Planning Funds. This element is ongoing throughout Fiscal Years 2022 and 2023 and includes participation in and support for the Association of Metropolitan Planning Organizations (AMPO), the Texas Metropolitan Planning Organization (TEMPO), and the Transportation Research Board (TRB). Additionally, this subtask includes oversight and coordination of the NCTCOG University Partnership Program. Consultant assistance may be utilized to assist with this element. Anticipated products include:

- NCTCOG representation at AMPO and TEMPO meetings;
- NCTCOG management participation in the TRB annual meeting and other conferences and professional development opportunities;
- Hosting and provision of training opportunities for local government, transportation providers, and/or planning agency staff;
- Appropriate office accommodations for staff and guests, including provision of consumable supplies, furniture, and leasehold improvements;
- Project topics for participation in the University Partnership Program;
- Assistance to the Texas Transportation Commission, as requested;
- Participation on and support for special task forces;
- Video/web hosting services; and
- Eligible and accurate billings within identified budgets.

Work Performed and Status: In FY2022, work activities included coordination of policy and institutional discussions between the Texas Transportation Commission (TTC), the Texas Department of Transportation (TxDOT), and the Regional Transportation Council (RTC). Staff also provided technical information in response to requests for information and/or meetings by the State and local elected officials.

NCTCOG staff provided advice and recommendations regarding Metropolitan Planning Organization (MPO) programs, plans, policies, and projects to comply with federal and State statutory and regulatory requirements, specifically 23 United States Code Section 134 and Programming. In addition, advice and recommendations were provided regarding compliance with the Texas Open Meetings Act and Texas Public Information Act.

The NCTCOG Director of Transportation was asked by the Texas Transportation Commission to lead a new task force comprised of representatives from the Texas Department of Transportation and the State's metropolitan planning organizations to further identify and fund safety projects throughout the state with a relentless focus on reducing the number of fatalities on Texas highways. This Safety Task Force was initiated in November 2021 for an initial two-year term. The Task Force has developed a short-term plan to immediately invest funding on current ongoing safety initiatives to reduce speeding and impaired driving; improve bicycle, pedestrian, and motorcycle safety; increase awareness for occupant protection (seatbelts); and implement safety

efforts in work zones. Annually, TxDOT and MPOs will report on the previous year's performance measures, implemented activities and achievements, as well as identify priorities for the next year. TxDOT has committed \$50,000 to each MPO across the state to support safety efforts and document safety activities to help reduce fatalities with the state of Texas.

In FY2022, the NCTCOG Director of Transportation also moderated the panel on Scenario Planning Across Sectors at the Transportation Research Board's 2nd Conference on Scenario Planning in Transportation in September 2022. The focus of this session was on the importance of scenario testing/practices to help transportation officials understand the value of using scenario planning as a tool to mitigate risk in the transportation planning process.

Professional development requests for NCTCOG staff were processed for attendance at webinars, seminars, training courses, and conferences, including the Transportation Research Board annual meeting. Organizational memberships in transportation-related professional organizations for the NCTCOG Transportation Department were also processed.

NCTCOG staff continued to support the Texas Association of Metropolitan Planning Organizations (TEMPO) in FY2022. The NCTCOG Assistant Director of Transportation served as the Interim Executive Director of TEMPO through June 2022, at which time a new Executive Director was elected. The NCTCOG Assistant Director was then elected to step back to the Deputy Executive Director position of TEMPO to serve through the fall 2025. Topics addressed by TEMPO at quarterly meetings included the status of TEMPO work groups, performance management targets, anticipated TPF funding levels under new authorization, TxDOT/MPO Safety Task Force, TxDOT Statewide Transportation Improvement Program Dashboard, FY2022 Statewide Revenue Forecast, Statewide Resiliency Work Group, Federal Highway Administration Crowdsourcing initiatives, Texas Transportation Institute Congestion Management Tool, and the Texas Electric Vehicle Plan.

Chairs for the Transportation Council Room were purchased to accommodate meetings of the Regional Transportation Council and other supporting committees.

Administration of the University Partnership Program continued. Staff coordinated with the participating universities and other department staff to identify project topics, help ensure understanding and compliance with the program guidelines, and implement the contracting process, including execution of agreements. Work performance on the specific University Partnership Program projects is provided in the appropriate Work Program subtasks.

Staff submitted monthly requests for reimbursement to the Texas Department of Transportation for activities described in this report, specifically work budgeted for use of Transportation Planning Funds. All expenditures are supported by accounting records and receipts as requested by TxDOT.

Transportation Planning Funds were used to support work activities. Work will continue in FY2023.

Other Funding Sources

North Central Texas Council of Governments Local funds, Regional Transportation Council Local funds, and other local funds will be utilized to support activities in Program Administration that may not be eligible for federal reimbursement. Such items may include, but are not limited to:

- Small stipend and travel expenses for a minority student and supporting professor to attend annual TRB meetings to represent work conducted on behalf of NCTCOG under the TRB Minority Student Fellowship Program partnership;
- Meal expenses;
- Individual staff memberships in professional organizations;
- Service awards;
- Travel expenses for foreign applicants;
- Legal and application filing fees for foreign employees;
- Audio/video expenses (i.e., equipment, updates, and maintenance) in the Transportation Council Room;
- Video/web hosting services;
- Furniture;
- Consumable supplies;
- Travel expenses; and
- Other special projects.

Work Performed and Status: In FY2022, local funds were used to support items such as meeting and staff travel expenses, individual staff memberships in professional organizations, legal fees, consumable supplies, furniture, and video/web hosting services.

In addition, local funds were used to provide honorariums for the two panel participants in the Transportation Research Board (TRB) Scenario Planning Conference and as a participant in the Transportation Research Board's Minority Student Fellowship Program, NCTCOG also used local funds to cover travel expenses associated with the student's attendance at the January 2022 TRB meeting to represent work conducted on behalf of NCTCOG on the Teleworking and Telelearning: The Next Generation University Participation Program project.

Regional Transportation Council Local funds, North Central Texas Council of Governments Local funds, and local funds were used to support the above expenses. Work will continue in FY2023.

Policy and Project Coordination

Other Funding Sources

This element will be ongoing throughout both FY2022 and FY2023, providing contract management and legal support. Among these activities is staff legal assistance relative to coordination for Regional Transportation Council policies and projects, enhancements of resources and compliance mechanisms related to the Disadvantaged Business Enterprise (DBE) Program, outreach to the vendor community to raise awareness of the DBE Program, and development of new partnerships with regional and State certification agencies. Surface Transportation Block Grant Program funds, supported by Transportation Development Credits, will be used for this effort. Anticipated products include:

- Assistance to the Texas Department of Transportation, as requested;
- Participation on and support for special task forces;
- Identification of federal and State laws to support policy decisions;
- Review of associated transportation funding and other associated policies;
- Education, outreach, events, and workshops with potential bidders/consultants, including partnerships with various contracting associations;

- Website content updates, including traditional and new media tutorials for potential bidders/consultants; and
- Collaboration and new partnerships with regional and State DBE certification agencies, such as the North Central Texas Regional Certification Agency.

Work Performed and Status: In Fiscal Year 2022, NCTCOG completed development of the Fiscal Year 2023-2025 Disadvantaged Business Enterprise (DBE) goal update. As part of the triennial goal update, NCTCOG hosted a DBE consultation workshop on April 11, 2022, and a DBE Open House Networking Event on June 6, 2022. The DBE consultation workshop provided an opportunity for DBE firms to review and provide consultation to NCTCOG staff on the proposed DBE goals. The DBE Open House Networking Event provided an overview of upcoming contracting opportunities and facilitated teaming opportunities between prime and DBE contractors. As part of each of these efforts, NCTCOG developed flyers and social media outreach to help notify the target audience about the events. As part of NCTCOG's efforts to develop and refine tools to oversee DBE program compliance, NCTCOG staff has implemented a process to verify timelines of payments to subcontractors. Over the last year, staff continued reviewing prompt payment procedures, submitted reports by prime consultants on the status of payments to subcontractors, verified payments to subcontractors including DBE firms, and followed up on contractual compliance deficiencies. NCTCOG staff continued review of contracting issues related to DBE attainment to determine guidance documents and training materials that could be developed to help ensure DBE commitments stay on track. Additionally, NCTCOG staff developed a flyer for Tribal Nations sharing information about NCTCOG's DBE program. The flyer contained information such as qualification requirements to be certified as a DBE, development of NCTCOG's DBE goal, and how to access more information about NCTCOG's program. NCTCOG completed website content updates and coordination with potential bidders and consultants on registration in NCTCOG's vendor database and potential procurement opportunities.

Further, Staff conducted a review of Regional Transportation Council (RTC) and Texas Transportation Commission policies, statutory, and regulatory provisions related to the allocation of funding to the Dallas-Fort Worth region to assist the RTC in policy considerations on such matters. Specifically, formula and non-formula allocations in the Transportation Code and companion Administrative Code provisions, as well as implications of potential legislative changes were reviewed. Staff presented related materials to the Regional Transportation Council and Surface Transportation Technical Committee.

Surface Transportation Block Grant Program funds (CSJ 0902-00-178) and Transportation Development Credits were used for this effort. This project is ongoing and work will continue in FY2023.

1.03 Fiscal Management and Information Systems

North Central Texas Council of Governments staff continue to support diverse programs, providing opportunity to facilitate projects with unique and innovative funding methodologies. This subtask includes work activities and strategies to enable effective fiscal coordination and streamlined accounting. Some fiscal management and information systems activities such as accounting support for Transportation Department projects; enhancement of procedures; development of financial management tools; compilation, assessment, and coordination of the NCTCOG Transportation Department annual budget; and financial assessment, monitoring, and

reporting are included in a cost allocation plan. These costs are included in the funding summaries for each task.

Work Performed and Status: During FY2022, staff facilitated and conducted work activities supporting transportation projects and programs. These activities included coordination of receipts and payments; financial monitoring and analysis; development and documentation of procedures and tools; budget development, monitoring, and modifications; compliance review and documentation; information systems and records management; reporting; assessment of internal controls and contract compliance; and coordination of fiscal requirements for the Agency. Staff also coordinated responses to audits and project reviews.

The cost allocation plan was used to support work activities. Work will continue in FY2023.

The fiscal-related activities described below may be excluded from the cost allocation plan and charged directly to the funding sources identified.

Local Funding Commitments

Other Funding Sources

During FY2022 and FY2023, North Central Texas Council of Governments Local funds, Regional Transportation Council Local funds, and other local funds will be utilized to support certain fiscal processes and fulfill financial commitments. Such items may include:

- Local match to support TxDOT Direct State Costs for State-administered projects; and
- Other costs to supplement project implementation.

Work Performed and Status: During FY2022, funds were expended for miscellaneous activity costs and to facilitate accounting closeout.

North Central Texas Council of Governments Local funds were used to support payments and work activities. Work will continue in FY2023.

Innovative Transportation Financing Strategies

Other Funding Sources

Ongoing throughout FY2022 and FY2023, activities under this work program element explore innovative transportation financing and funding strategies as authorized by State and federal law. Innovative funding tools allow for enhanced flexibility in meeting critical transportation needs. The Regional Transportation Council, in partnership with transportation providers in the Dallas-Fort Worth area, is pursuing many of these strategies, including the use of innovative public and private partnerships, State Infrastructure Bank loans, Transportation Infrastructure Financing and Innovation Act loans, tax increment financing, transportation reinvestment zones, and value capture mechanisms through municipal land-use authority. In addition, staff will explore the institutional structures, partnerships, and agreements necessary to leverage these innovative financing and funding tools in the Dallas-Fort Worth region. Lastly, staff will continue to monitor

and track existing and proposed innovative financing partnerships and funding. Regional Toll Revenue funds will support work activities. Anticipated products include:

- Innovative finance policies and strategies;
- Assessments of State and federal legal authority;
- Development of funding partnership agreements; and
- Presentations and informational materials.

Work Performed and Status: Staff continued its efforts to review specific statutory tools for application to projects in the Metropolitan Transportation Plan (MTP). Legal staff coordinated, developed, and reviewed agreements related to innovative financial strategies throughout the region. Several innovative funding agreements were developed to memorialize Regional Transportation Council-approved funding strategies. Staff worked to update tracking mechanisms related to the initiatives.

Regional Toll Revenue funds (CSJ 0902-00-236) supported work activities. Work is ongoing and will continue in FY2023.

1.04 Computer System Applications and Data Management

The overall goal of this subtask is to provide NCTCOG staff with the tools and technical support needed to complete work tasks in an efficient and timely manner. Computer resource management activities are conducted by MPO staff in support operations of the NCTCOG Transportation Department and implementation of all projects. Activities such as planning for, monitoring, and coordinating computer and software replacements and upgrades, as well as various audio/video, computer and computer-related staff support, and system maintenance functions are included in a cost allocation plan. Costs are allocated to all projects, including projects funded with Transportation Planning Funds and other funding sources. These costs are included in the funding summaries for each task.

Work Performed and Status: In FY2022, staff coordinated computer and software replacements and upgrades, imaged and deployed computers to staff, performed preventative maintenance on equipment, maintained documentation of equipment and software licenses, monitored network drive space, responded to user questions, and provided solutions to software and hardware problems. Audio and video technical support was also provided for numerous meetings throughout the year, as well as webcasts.

The cost allocation plan was used to support work activities. Work is ongoing and will continue in FY2023.

Efforts described below include activities that may be excluded from the cost allocation plan and charged directly to the funding sources identified.

Computer Resource Management and Equipment Purchases

Transportation Planning Funds

This subtask is ongoing throughout FY2022 and FY2023 and includes the purchase or lease of computer equipment such as software and associated maintenance/support, licenses, and

application subscriptions to support NCTCOG department staff in the fulfillment of their job responsibilities. A list of equipment and software purchases/leases anticipated to be obtained during the time period of this Work Program, including the identified funding sources, is provided as Exhibit VIII-3 in Chapter VIII, Overview of Work Program Funding. Equipment and software purchases over \$5,000 per unit that are being obtained with Transportation Planning Funds require prior State and federal approval. Consultant assistance may be pursued to assist with this task. Anticipated products include:

- Software licenses;
- New and upgraded software and associated maintenance/support;
- Video equipment and supplies;
- Air cards;
- Application subscriptions; and
- Associated equipment necessary to support activities.

Work Performed and Status: Software maintenance and support was purchased to continue annual vendor support for traffic modeling licenses of TransCAD and Microsoft licenses covered under NCTCOG Microsoft Enterprise Agreement Licensing Program for Windows Operating System upgrades. This includes Windows 10, Microsoft Office 365, and Software Assurance Benefits. New software licenses and upgrades were purchased as needed, including Smartsheet, Adobe Professional DC, Adobe Illustrator, Adobe Photoshop, Adobe InDesign, Adobe Creative Cloud – All Apps, were purchased to support staff needs.

Transportation Planning Funds were used to support the purchases. Work will continue in FY2023.

Other Funding Sources

Regional Transportation Council Local funds will be utilized to purchase or lease computer systems and related equipment/hardware that may not be eligible for federal reimbursement. Such items may include, but are not limited to:

- Desktop, portable, and tablet computers (i.e., replacement of computers that are out of warranty and new computers to support staff needs);
- Monitors/televisions;
- Printers and scanners;
- Audio/video equipment and updates, and maintenance for the Transportation Department meeting rooms;
- Voice-Over-Internet-Protocol phone devices; and
- Associated equipment necessary to support activities.

Work Performed and Status: Laptop and desktop computers were purchased to accommodate replacement computers for staff and new employee needs. Monitors/televisions and immersive wireless devices were purchased to support audio video in Transportation meeting rooms.

Regional Transportation Council Local funds were used to support the purchases. Work will continue in FY2023.

Database and Geographic Information System Management

Transportation Planning Funds

This element is ongoing throughout both FY2022 and FY2023 among efforts to inventory, develop, maintain, consolidate, and optimize the numerous internal and external data sources, hardware/software tools, and various computer or web-based applications critical for the comprehensive processing of NCTCOG transportation projects, programs, and stakeholder services. This includes the management, coordination, and more effective utilization of Geographic Information System (GIS) technologies, due not just to the spatial references tied to most databases relevant to transportation-related activities and effects, but also to their potential for increased visualization, communication, and performance tracking opportunities. This work will support the establishment of seamless multi-disciplinary linkages, improved productivity and analysis capabilities, expanded venues for public/agency interaction and consumption, and enhanced inter-relationships in identifying, tracking, and reporting on transportation needs, impacts, and outcomes. These objectives will be accomplished through extensive investigations, collaboration, training, and technical development among Transportation Department program areas, other NCTCOG departments, and external partnering agencies.

Resulting databases and applications will integrate the following information, including, but not limited to:

- Transportation Improvement Program (TIP) projects and programs;
- Metropolitan Transportation Plan (MTP) projects and programs;
- Multimodal transportation networks and attributes (roadway, rail, bicycle/pedestrian, etc.);
- Infrastructure support systems/operations networks and attributes;
- NCTCOG Travel Demand Model attributes and outputs;
- Environmental features, constraints, and estimated/measured project effects for National Environmental Policy Act (NEPA) analysis purposes;
- Safety, security, and sustainability qualities;
- Demographic and environmental justice properties; and
- GIS features and outputs.

Anticipated products include:

- Multi-variate databases and application tools, including GIS datasets and maps;
- Online data and GIS services;
- GIS and database management training;
- Technical templates, manuals, and protocols for data coding, storage, manipulation, linkages, and visualization;
- Data collection, quality control/assurance processes, and analysis services;
- Open-source and/or web-based information sharing; and
- Performance measure/target tracking and reporting.

Work Performed and Status: Geographical Information System (GIS) and data-related services were provided to the Transportation Department in coordination with other NCTCOG departments. These tasks included data collection/analysis, scripting and automation, creation and maintenance of online mapping products, creation of static maps and other cartographic tasks, project administration, and database/user management.

Ongoing maintenance of the department's authoritative GIS datasets continued, with an enhanced focus on updating existing older datasets. An existing departmental inventory was maintained and improved. The GIS and Data Solutions liaison group continued to meet on a regular basis to help facilitate conversations on GIS and data topics and to provide a forum in which best practices can be shared. A departmental GIS strategic plan was finalized and adopted. Development of onboarding material, procedures, and manuals continued. Additional activities related to the creation of a new consolidated GIS and Data Solutions team took place during FY2022.

Transportation Planning Funds were used to support work activities. This project is ongoing and work will continue in FY2023.

Regional Digital Aerial Imagery

Other Funding Sources

During FY2022 and FY2023, this project will obtain high-resolution color digital imagery for areas of North Central Texas. The aerial photography and Light Detection and Ranging (LiDAR) imagery obtained will be high resolution and geocoded with high-accuracy Global Positioning System coordinates (latitude, longitude, and elevation). The digital imagery will align with industry-accepted procedures and standards, and image accuracy will be ensured through ground control and surface integration. The resulting imagery will be used for a wide variety of planning purposes, including improvements to travel demand modeling, corridor alignment planning and engineering analysis (including for the Regional Outer Loop), watershed hydrology modeling, environmental support, and tracking for changes in population/employment, land uses, and impervious surface cover. This work will be supported through Surface Transportation Block Grant Program funds and Texas Department of Transportation funds. Anticipated products include:

- Digital aerial imagery for use in a wide variety of planning purposes.

Work Performed and Status: Aerial imagery is generally acquired in odd-numbered fiscal years. Imagery was last acquired in FY2021 and is anticipated to be collected in FY2023. Work activities in FY2022 included tasks needed to support on-time funding and acquisition of imagery in FY2023 and FY2025, development of processes to streamline acquiring imagery in future years, and technical analysis of FY2021 aerials.

Surface Transportation Block Grant Program funds (CSJ 0902-00-279) and Texas Department of Transportation funds were used to support work activities. Work will continue in FY2023.

TASK 1.0 – FUNDING SUMMARY

Funding Source	Amount Programmed (2-year)	Authorized (2-year) ¹	Expended (FY2022)	Amount Expended (2-year)	Balance of Programmed (2-year)	% Expended of Programmed (2-year)	Balance of Authorized (2-year)	% Expended of Authorized (2-year)
1.01 - Community Outreach								
TPF	\$4,372,900	\$2,086,000	\$2,162,688	\$2,162,688	\$2,210,212	49.5%	(\$76,688)	103.7%
CMAQ	\$2,913,900	\$3,270,850	\$1,056,765	\$1,056,765	\$1,857,135	36.3%	\$2,214,085	32.3%
STBG	\$245,000	\$0	\$0	\$0	\$245,000	0.0%	\$0	0.0%
LOCAL	\$0	\$37,586	\$0	\$0	\$0	0.0%	\$37,586	0.0%
NCTCOG LOCAL	\$4,000	\$2,000	\$0	\$0	\$4,000	0.0%	\$2,000	0.0%
Subtotal	\$7,535,800	\$5,396,436	\$3,219,453	\$3,219,453	\$4,316,347	42.7%	\$2,176,984	59.7%
1.02 - Program and Policy Administration								
TPF	\$819,100	\$507,250	\$171,829	\$171,829	\$647,271	21.0%	\$335,421	33.9%
STBG	\$267,500	\$267,508	\$50,121	\$50,121	\$217,379	18.7%	\$217,387	18.7%
LOCAL	\$208,400	\$229,483	\$16,241	\$16,241	\$192,159	7.8%	\$213,242	7.1%
NCTCOG LOCAL	\$119,800	\$59,900	\$45,865	\$45,865	\$73,935	38.3%	\$14,035	76.6%
Subtotal	\$1,414,800	\$1,064,142	\$284,057	\$284,057	\$1,130,743	20.1%	\$780,085	26.7%
1.03 - Fiscal Management and Information Systems								
LOCAL ²	\$6,000	\$0	(\$575)	(\$575)	\$6,575	-9.6%	\$575	0.0%
NCTCOG LOCAL	\$20,000	\$7,298	\$7,247	\$7,247	\$12,753	36.2%	\$51	99.3%
RTR	\$345,300	\$345,297	\$90,021	\$90,021	\$255,279	26.1%	\$255,277	26.1%
Subtotal	\$371,300	\$352,595	\$96,692	\$96,692	\$274,608	26.0%	\$255,903	27.4%
1.04 - Computer System Applications and Data Management								
TPF	\$765,200	\$455,100	\$443,828	\$443,828	\$321,372	58.0%	\$11,272	97.5%
STBG	\$675,000	\$675,000	\$434,953	\$434,953	\$240,047	64.4%	\$240,047	64.4%
TXDOT	\$168,750	\$168,750	\$108,738	\$108,738	\$60,012	64.4%	\$60,012	64.4%
LOCAL	\$295,800	\$501,305	\$178,989	\$178,989	\$116,811	60.5%	\$322,316	35.7%
Subtotal	\$1,904,750	\$1,800,155	\$1,166,508	\$1,166,508	\$738,242	61.2%	\$633,647	64.8%
Total	\$11,226,650	\$8,613,328	\$4,766,711	\$4,766,711	\$6,459,939	42.5%	\$3,846,618	55.3%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Chapter VI. Funding Summaries – Transportation Planning Funds (Two-Year Total) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

² Negative expenditures due to credits received from TxDOT for direct state costs payments of completed projects.

TASK 1.0 – TPF FUNDING SUMMARY FY2022

	Amount Programmed	Amount Authorized ¹	Amount Expended	% Expended Programmed	Balance of Authorized	% Expended Authorized
1.01 - Community Outreach						
TPF	\$2,086,000.00	\$2,086,000.00	\$2,162,687.83	103.7%	(\$76,687.83)	103.7%
1.02 - Program Administration						
TPF	\$507,250.00	\$507,250.00	\$171,829.39	33.9%	\$335,420.61	33.9%
1.04 - Computer System Administration and Data Management						
TPF	\$455,100.00	\$455,100.00	\$443,828.00	97.5%	\$11,272.00	97.5%
Total	\$3,048,350.00	\$3,048,350.00	\$2,778,345.22	91.1%	\$270,004.78	91.1%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Chapter VI. Funding Summaries – Transportation Planning Funds (Two-Year Total) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

II. Task 2 – Transportation Data Development and Maintenance

Development and maintenance of travel and air quality data and the refinement and application of the travel and air quality models used to support regional transportation and air quality planning activities are critical tasks in support of the metropolitan planning process. This task includes the collection, development, and use of data; maintenance of and improvements to the Dallas-Fort Worth Regional Travel Model; monitoring of demographic and growth activity in the region; and refinement of demographic forecasting techniques.

2.01 Travel Forecasting Support

The purpose of this subtask is to provide analytical tools for travel forecasting within the Metropolitan Planning Area (MPA). The Regional Travel Model includes Hill County, in addition to the 12 counties that comprise the MPA, due to the fact that the southern split of IH 35 is located within the boundary of Hill County and because of the impact the IH 35 facility has on transportation planning within the MPA. The forecasting tool set includes various arrays of data, mathematical models, computer programs, and information system products. These tools are used in essential functions of the Metropolitan Planning Organization. These functions include the long-range Metropolitan Transportation Plan, Transportation Improvement Program, Congestion Management Process, Safety and Security Program, Air Quality Conformity analysis, roadway and transit alternative analyses, subarea studies, thoroughfare planning, environmental statements, and technical assistance to local public agencies. This subtask is closely complemented by Subtasks 2.02 and 2.03, which are related to data management and demographic forecasting, respectively. The components of this subtask are described below.

Dallas-Fort Worth Regional Travel Model for the Expanded Area

Transportation Planning Funds

This component covers activities related to the maintenance of the Dallas-Fort Worth Regional Travel Model for the Expanded Area (DFX). DFX is a collection of computer program software applications, training materials, and documents used by transportation analysts for planning the projects and policies in the region; this Regional Travel Model was originally developed in 2009. With the release of the Transportation Analytical Forecasting Tool (previously referred to as the Next Generation Regional Travel Model) in FY2020, DFX will not be the primary model used in the Dallas-Fort Worth region. DFX will be maintained and updated to support existing projects and maintain consistency in project analysis. The tasks related to DFX include software updates, version maintenance, file backup and archiving, and technical support. The technical support may include internal support to users within NCTCOG, responding to questions about DFX, and enabling member local governments or agencies to have access to DFX. The DFX maintenance and operations project is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Model software application and component programs;
- DFX version library;
- Model run archive database; and
- Technical support.

Work Performed and Status: The existing Regional Travel Demand Model computer application for the expanded area (DFX) was maintained. Updates to the model were made to support existing projects. All versions of the model are saved in a DFX version library. The model archive was maintained; archiving of newer model runs was performed on request. NCTCOG staff provided support to internal and external users of the model.

Transportation Planning Funds were used to support work activities. Work on the DFX Regional Travel Model will continue in FY2023.

Transportation Analytical Forecasting Tool

Transportation Planning Funds

The Transportation Analytical Forecasting Tool (TAFT) is the latest Regional Travel Model for the Dallas-Fort Worth Metropolitan Area that was released in September 2020. TAFT is a collection of computer program software applications, training materials, and documents used by transportation analysts for planning projects and policies in the region. Development and maintenance of a Regional Travel Model is a multiyear project with several subtasks that will incrementally complement each other to create a mature analytical tool. TAFT will gradually replace DFX as the main Regional Travel Model (RTM). Work activities include software component and application development, visualizations, required documentation, maintenance and updates, and management activities. These activities will continue through FY2022 and FY2023. Anticipated products include:

- TAFT software application improvements and maintenance; and
- TAFT documentation update.

Work Performed and Status: Development and maintenance of the TAFT software application continued in FY2022. Transit coding tools were designed and implemented. Roadway coding tools were expanded. Environmental Justice report and roadway facility report tools were created and incorporated into TAFT. Updates were made to model components and reports. The application was maintained for use internally and for use at Dallas Area Rapid Transit (DART) offices. Periodic meetings were scheduled with internal users to discuss updates and to learn about future needs of users. Support was provided for the TAFT application to internal and external users. Staff continued to write chapters for the model description document. Memos were created to describe component updates. Documentation was created for all reporting tools. The model archive folder structure was developed. TAFT model runs were stored in the model run archive on request.

Transportation Planning Funds were used to support these activities. Work will continue in FY2023.

Regional Travel Model Application Support

Transportation Planning Funds

This component covers activities related to the support for Regional Travel Model (RTM) application work, both internal and external of the agency. The tasks in this component are categorized in four perspectives. First, general model application support includes RTM planning

application activities, technical support, and the model's functions clarification. Second, project-based model application support is related to certain projects that involve more comprehensive model application support, including analysis of the projects, modification of the RTM to satisfy the projects' requirements, and review of the new analytical tool based on the RTM. Third, general model trainings are provided to model users as scheduled and requested. The training topics can be the model's usage, concept, and report. Fourth, coordination with model users that includes meeting with model users and collecting questions and feedback from model users. Regional Travel Model application support is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Coordination meetings;
- Technical support; and
- Training sessions.

Work Performed and Status: Training of internal and external users on the RTM was performed. Feedback from users' tests of TAFT supported continued refinement of the model. The NCTCOG Model Team continued to provide analytical tools as add-ons for RTM to all users. Technical support to several roadway projects, transit projects, and grant applications was provided to other teams.

Transportation Planning Funds were used to support these activities. Work will continue in FY2023.

Household Travel Survey

Other Funding Sources

NCTCOG, in collaboration with the Texas Department of Transportation, has been a part of the National Household Travel Survey (NHTS) 2017 project. NCTCOG staff will analyze and summarize NHTS 2017 and participate in other activities related to NHTS NextGen efforts. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work efforts. Anticipated products during FY2022 include:

- Summary tables of NHTS 2017 analysis.

Work Performed and Status: NCTCOG staff attended the NextGen NHTS Advisory Committee meeting in July 2022 to learn about the progress of the 2022 NHTS household surveys, the process for development of the 2020 national Origin-Destination tables, and the use of national data and tools. A document containing the background of the 2017 NHTS dataset for the NCTCOG 12-county metropolitan planning region and summary tables of various measures of the dataset including home location, socio-economic characteristics, delivery vehicles, long-distance trips, trip length distribution, work location, and work-from-home options was developed.

Surface Transportation Block Grant Program funds (CSJs 0902-00-177) and Transportation Development Credits were used to support these work activities. This project was completed in FY2022.

Innovative Data Collection Method and Data Analytics

Other Funding Sources

This component includes investigation of newly available data sources such as social media and big data for application in transportation planning. These emergent technologies may have a substantial effect on existing data collection and analytical tools. This element may also include providing assistance to other NCTCOG program areas for the acquisition and purchase of data. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work efforts. The anticipated products during FY2022 and FY2023 include:

- Documentation of results of the investigations of data sources and vendor products.

Work Performed and Status: Coordination with the Texas Department of Transportation (TxDOT) and the Texas A&M Transportation Institute continued to avoid duplicate purchase of similar data. The investigation of the vendors also continued to understand the usability and the content offered. These activities were documented in a report. During the last fiscal year, TxDOT purchased three datasets from INRIX, WEJO, and Replica. NCTCOG will have access to INRIX and WEJO. Coordination with State and national data providers will continue in FY2023.

Surface Transportation Block Grant Program funds (CSJ 0902-00-177) and Transportation Development Credits were used to support work activities. Work will continue in FY2023.

Regional Dynamic Traffic Assignment Model

Other Funding Sources

Dynamic Traffic Assignment (DTA) represents a more realistic and accurate assignment method superior to the existing time-of-day static assignment. DTA captures the interaction between travelers' route choices, traffic congestion, and time-dependent travel time in a temporally coherent manner. Specifically, DTA models aim to describe such time-varying network and demand interaction using a behaviorally sound approach. NCTCOG will administer a Request for Information (RFI) to gather from suppliers/vendors/universities their capabilities regarding DTA solutions they can provide. Based on the results of the RFI, NCTCOG will either develop a DTA solution in-house with purchased software, or contract with suppliers/vendors/universities to proceed with DTA development. This may require utilization of consultant services through the Request for Proposal process. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work efforts. The regional DTA project will take place in FY2022 and FY2023. Anticipated products include:

- Summary of findings and staff recommendations based upon responses to RFI;
- Scope of services for consultant;
- Preliminary implementation of a regional DTA model; and
- Calibration and validation report of the developed regional DTA model.

Work Performed and Status: A Request for Information (RFI) was issued in FY2022. Eight responses to the RFI from software vendors, universities, and consultants were received. Responses to the RFI have been carefully reviewed internally, with staff evaluating each software's capabilities in terms of meeting the goals of the task. Staff is exploring the possibility of conducting the work in-house.

Surface Transportation Block Grant Program funds (CSJ 0902-00-177) and Transportation Development Credits were utilized to support this project. Work on this project will continue in FY2023.

Development of Non-Motorized Trip Model

Other Funding Sources

This component's main purpose is to develop a non-motorized trips module to represent the travel behavior of non-motorized trips in the RTM. Work activities include investigating existing methods, coding networks, restructuring zones, systemizing bike and person counts, developing travel behavior models, developing software applications, and file system development, documentation, and training. Consultant assistance may be utilized. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work efforts. The development of a non-motorized trips model will take place in FY2022 and FY2023. Anticipated products include:

- Non-motorized trip model;
- Final report of the model; and
- User guide and model description.

Work Performed and Status: The development activities for the non-motorized model have been delayed due to the prospects of availability of new data and gaining proper understanding of the intended applications of the model. The new data may include sidewalk locations from aerial photographs and demand data from TxDOT's statewide purchase of Replica products. A work plan for zone structure changes to fit the higher geographical resolution for non-motorized trips has been developed.

Surface Transportation Block Grant Program funds (CSJ 0918-00-313) and Transportation Development Credits were utilized to support this project. Work on this project will continue in FY2023.

Transit Travel Survey

Other Funding Sources

NCTCOG, in coordination with Dallas Area Rapid Transit, the Denton County Transportation Authority, and Trinity Metro, will re-initiate activities paused in FY2020 due to the COVID-19 pandemic and conduct a regional transit onboard survey in FY2022 and FY2023. This project will include a survey of transit routes as identified by the three transit agencies. The resulting data will be heavily used in updating the Regional Travel Demand Model. This project includes supplemental transit surveys such as an automatic passenger count validation study for Trinity Metro. Consultant assistance will be utilized. Surface Transportation Block Grant Program funds, local funds, and Transportation Development Credits will be utilized to support work efforts. Anticipated products include:

- Transit Travel Survey final report;
- Transit Travel Survey databases; and
- Trinity Metro automatic passenger count validation study report.

Work Performed and Status: Coordination meetings were held with Dallas Area Rapid Transit (DART), the Denton County Transportation Authority (DCTA), Trinity Metro, and the consultant to prepare for the continuation of the Transit Travel Survey. The consultant created the work plan, sampling plan, and training materials for Fall 2022. A survey instrument was designed for fixed routes tailored with options for different transit agencies, implemented on tablets and a paper questionnaire, and tested in a pilot study. Surveyors were trained. An on-to-off survey started on rail and high-ridership buses of Trinity Metro to determine at which stop riders boarded these routes and at which stop they alighted those same vehicles. An origin-destination survey data collection on fixed routes using the survey instrument began on board buses and rail of Trinity Metro. The consultant provided updates on the data collection progress. A list of questions for the separate on-demand survey instrument were developed by the transit agencies and NCTCOG. Work on this project will continue in FY2023 with data collection at Trinity Metro and DCTA in the Fall 2022 and at DART in the Spring 2023.

Surface Transportation Block Grant Program funds (CSJ 0918-00-313) and Transportation Development Credits were used to support these work activities. Work will continue on this project in FY2023.

Limited Access Facility User Survey

Other Funding Sources

In cooperation with the North Texas Tollway Authority, Texas Department of Transportation, and managed lane operators, NCTCOG will continue a survey initiated in FY2021 of limited access facility (LAF) users in six segments of regional corridors. The survey, previously referred to as the Toll Road User Survey, focuses on the socio-economic characteristics of the travelers, their trip patterns, their trip-making behavior, and willingness to pay for use of the limited access facilities. This study will also be used in an evaluation of environmental justice related to building the tolled facilities. Final survey results are expected during FY2023. Consultant assistance will be utilized. Work efforts will be supported through Surface Transportation Block Grant Program funds and Transportation Development Credits. Anticipated products during FY2022 and FY2023 include:

- Intermediate progress reports and final report; and
- LAF user survey database.

Work Performed and Status: In FY2022, NCTCOG staff continued work with the consultant on the survey questionnaire, as well as the programming of the survey instrument. The pilot survey was conducted in November 2021, and its results were summarized and analyzed. Feedback from the pilot survey was applied to the full survey process. The full survey was conducted from January to March 2022, with 7,646 survey samples collected by the consultant. After cleaning and quality checking, 5,878 survey samples were retained and delivered in the form of a database. The deliverables also included the consultant's documentation of the survey procedure.

Based on the raw survey samples, a survey expansion was completed and validated. NCTCOG staff developed a collection of SQL queries to summarize and analyze the expanded database. Multiple charts and tables were created. Initial conclusions were made. Work on this project will continue in FY2023 with the completion of the final report, including visualization.

Surface Transportation Block Grant Program funds (CSJs 0902-00-196 and 0918-00-208) and Transportation Development Credits were used to support these work activities.

Travel Model Network Development and Maintenance

Transportation Planning Funds

Included in this element are the development and maintenance of geographic electronic roadway and transit network files used in travel demand modeling. Staff will monitor local and regional transportation improvements in order to develop and maintain a current-year network and various forecasted networks. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Current-year transportation network;
- Roadway and transit networks for the Metropolitan Transportation Plan and Air Quality Conformity analysis;
- Roadway and transit networks for specific roadway and transit corridor studies;
- Network Development and Maintenance Program that is administered to continually evaluate network quality control through the review of existing and proposed transportation networks; and
- GIS-based roadway and transit networks for use in roadway corridor, transit corridor, and thoroughfare studies and as a response to technical assistance requests.

Work Performed and Status: A current-year transportation network was monitored and updated to reflect the status of the region's transportation system. Roadway and transit networks were developed on request to support the Mobility 2045 Update and Air Quality Conformity analysis and specific roadway and transit corridor studies. To ensure quality control, a Network Development and Maintenance Process, which aids in the identification of data elements that may be inconsistent with normal values, was utilized for a continual review of transportation networks. Geographic Information System-based roadway and transit networks were provided to internal and external partners on an as-needed basis for technical assistance, and corridor and subarea studies.

Transportation Planning Funds were used to support work activities. Work will continue in FY2023.

2.02 Transportation Data Development

Enhancement of Quality of Data Collected by Radar Vehicle Detectors

Other Funding Sources

The purpose of this element is to enhance the base-line quality of data collected by existing vehicle detectors (also known as side-fire devices) in the Dallas-Fort Worth region and to measure the accuracy and reliability for use in several transportation planning activities. Consultant assistance will be utilized. Work activities will take place during FY2022 and FY2023. Surface Transportation Block Grant Program funds and Texas Department of Transportation funds will be utilized to support work efforts. Anticipated products include:

- Geographic dataset containing an inventory of existing side-fire devices in the Dallas-Fort Worth area;

- Consultant/vendor selection process to perform validation of a portion of the side-fire devices;
- Diagnostic of the side-fire devices based on the data collected at each vehicle detector identifying its level of accuracy and quality; and
- A database of the collected traffic data with acceptable accuracy and quality.

Work Performed and Status: The inventory of side-fire devices was updated with the information of new devices that were installed by the Texas Department of Transportation Dallas and Fort Worth districts. A consultant was selected to collect traffic counts on one day at more than 90 locations where side-fire devices are installed. For each of these locations, the collected traffic count was compared against the traffic collected by the side-fire devices and the accuracy of the radar measuring device was calculated. A database with the traffic counts collected by the consultant was created. This database also includes the comparison with the traffic volumes measured by the side-fire devices.

Surface Transportation Block Grant Program funds (CSJs 0902-90-051 and 0902-90-052) and Texas Department of Transportation funds were used to support work activities. Work on this project will continue in FY2023.

Maintenance of Existing Datasets

Transportation Planning Funds

During FY2022 and FY2023, NCTCOG staff will carry out activities related to the maintenance of existing datasets. Efforts will include coordination with data providers, integration of data, dissemination of information in the form of services and websites, and analysis of data. Coordination with internal and external entities plays an important role in the efficiency of data products and activities. Anticipated products include:

- Database of contact information;
- Agreements with agencies, as necessary;
- Databases of compiled data provided by partner agencies and cities, including, but not limited to, traffic counts, transit ridership, travel times, speeds, lane occupancy, vehicle occupancy on special purpose lanes, airport movements, toll transactions, vehicle registrations, inventories, and vehicle miles traveled;
- Websites and other graphic user interfaces that allow users to see relevant and detailed data at different levels of accessibility; and
- Summaries, reports, and charts of the analyses done on the data.

Work Performed and Status: Traffic count data for the year 2021 were requested and obtained from the Texas Department of Transportation. Transit ridership data and updated routing schedules were requested and obtained from Dallas Area Rapid Transit, the Denton County Transportation Authority, and Trinity Metro. Travel time data was obtained from the Federal Highway Administration from September 2021 to August 2022. NCTCOG staff continued updating the database containing staff contact information for providers at major cities and regional agencies.

The traffic and bicycle and pedestrian counts website was maintained to continue the availability of these data to the public. The website for transportation usage measures was updated with the data for the last 12 months. These data include transit ridership, vanpools, and gasoline

consumption, among others. Transportation data associated with the impacts of COVID-19 was made available during Regional Transportation Council and Surface Transportation Technical Committee meetings, and a Dashboard to display this specific data was designed and posted on the website for public access.

Transportation Planning Funds were used to support work activities. Work will continue in FY2023.

Technical Assistance and Services

Transportation Planning Funds

Throughout FY2022 and FY2023, NCTCOG staff will provide technical assistance, services, and training to other program areas in the Transportation Department on latest data sets and interfaces. Anticipated products include:

- Databases of transportation planning data;
- Investigation and identification of new sources of transportation data and analysis tools;
- Analyses, reports, maps, and charts; and
- Training sessions.

Work Performed and Status: NCTCOG staff summarized traffic counts and travel-time data to address several requests. In the specific case of the travel-time data, it was used to create heat charts that were used to illustrate levels of congestion, by day and time of day, on corridors and specific freeway segments. Data related to traffic, speeds, transit, bike/pedestrians, toll facilities, and airport passengers, among others, was summarized to illustrate the impact of the stay-at-home measures implemented due to the COVID-19 pandemic. Seasonal factors for air quality conformity were calculated. Origin-Destination data from INRIX, Streetlight, and LOCUS was analyzed. New databases for travel demand surveys and employers were created. A review of the latest transportation datasets and interfaces was carried out, with emphasis on those associated to connected vehicle probe-data.

Transportation Planning Funds were used to support work activities. Work will continue in FY2023.

Connected Vehicle Data in Transportation Planning

Transportation Planning Funds

Connected vehicle data has been made available recently by several companies for its use in transportation planning and traffic engineering. The data delivered by these companies provide important spatial-temporal characteristics of a significant sample of the vehicles that travel in the NCTCOG area. As part of this element, the following potential uses of connected vehicle data will be explored: validation of radar traffic counters and the development of an innovative framework for travel demand forecasting. For this effort, university assistance through the University Partnership Program (UPP) will be utilized. Anticipated products include:

- Analysis reports, trip matrices, traffic profiles, and the corresponding computer codes.

Work Performed and Status: In this effort, the participating university developed an algorithm to produce samples of connected vehicle data delivered by a commercial vendor. These samples were integrated into a dataset covering one month at every location where a side-fire device is installed. The dataset included the number of samples detected, as well as the average speed at 15-minute intervals. The analysis of the data was used to develop prediction algorithms that produced reliable estimates of the traffic volume at each location. The connected vehicle data was also used to establish the mathematical formulation of a framework aimed at forecasting travel demand on freeways.

Transportation Planning Funds were used to support work activities. Work on this project was completed in FY2022.

2.03 Demographic Data and Forecasts

This subtask focuses on creating data products and models related to land use and demographic data in the region. These products will be used for planning and transportation projects. The subtask is closely associated with Subtask 2.01 for compatibility of data. The activities related to this subtask are grouped into inventory of land use and demographic data, improvement and maintenance of a regional land use and demographic model, development of a regional demographic forecast, improvement and maintenance of a large employer geographic database, and development of auxiliary geographic databases. Data acquisition and purchases may be needed for this subtask.

Inventory of Land Use and Demographic Data

Transportation Planning Funds

An inventory of land-use and demographic data will be created through communications with local agencies and government entities. Various datasets, including up-to-date city boundaries, land inventory, Census 2020 and American Community Survey databases, and sub-county area employment estimates will be compiled. Technical support regarding access and use of the data will be provided. Ongoing throughout FY2022 and FY2023, anticipated products include:

- Geographic Information System Layer of updated city boundaries annually for FY2021 and FY2022;
- An information system of the inventory of land-use data based on uses such as residential, commercial, and industrial with a reference year of 2020;
- Processed subsets of decennial US 2020 Census data and American Community Survey data;
- Standardization of small area estimates of population and jobs by industry sector for sub-county areas, including 2020 Census tracts and block groups or updated transportation analysis zones; and
- Technical assistance in response to a variety of inquiries by phone or email.

Work Performed and Status: Staff updated the Geographic Information System Layer of city boundaries, created a 2020 land-use inventory, processed and disseminated 2020 Census data, and responded to various requests for assistance. The development of 2020 small area estimates began. Work will continue on this project in FY2023, including standardization of previously developed estimates for years prior to 2020.

Transportation Planning Funds were used to support work activities. Work on this project will continue in FY2023.

Improvement and Maintenance of a Regional Land Use and Demographic Model

Transportation Planning Funds

Efforts will continue on the improvement and maintenance of the current regional land use and demographic forecast model. Activities include compilation of various data sources into estimation datasets, and improvement of the calibration of the forecasting model. The regional land-use and demographic model forecasts will be used by the Regional Travel Model, as well as local transportation projects. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Model improvement progress reports;
- Validation results; and
- An updated set of programs and procedures for demographic forecasting.

Work Performed and Status: Staff met regularly to discuss model development and gauge performance. Performance reports and validation results were furnished with each model run, and processes and procedures were documented.

Transportation Planning Funds were used to support work activities. Work on this project will continue in FY2023.

Development of Regional Demographic Forecasts

Transportation Planning Funds

Regional demographic forecasts will be developed in consultation and coordination with local government agencies. Attention will be placed on the evaluation of possible methodologies for the demographic forecasting process. Specific demographic datasets may be generated for various projects. This effort will support the regional demographic model. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Forecasts of population, households, and employment for sub-county geographies such as transportation analysis zones;
- Downloadable forecast data for identified plan years; and
- Documentation providing general understanding of the forecasting process and specific descriptions of available forecast data.

Work Performed and Status: Subcounty forecasts were developed and approved. Forecast data for 2030 and 2045 were publicly available for download. This downloadable data includes documentation of the process and the available data.

Transportation Planning Funds were used to support work activities. Work on this project will continue in FY2023.

Improvement and Maintenance of a Large Employer Geographic Database

Transportation Planning Funds

This element includes improvement and maintenance of a large employer geographic database. Large employers are defined based on number of employees and development size. This database will enhance quality control in local transportation projects and studies. When purchasing or evaluating new data sources, this database may also serve as a useful benchmark. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Information system of the large employers, including specific location, type of activity, and number of employees on site.

Work Performed and Status: The major employers' database is updated on a continual basis. The total number of employer records is over 6,000. In FY2022, 101 employers were added, and 40 employer records were updated.

Transportation Planning Funds were used to support work activities. Work on this project will continue in FY2023.

Development of Auxiliary Geographical Databases

Transportation Planning Funds

This element involves creation of auxiliary geographic databases, including, but not limited to, inventories of pertinent features and development (schools, hospitals, offices, cemeteries, shopping malls, etc.) and major employers. Purchase or acquisition of datasets may be needed for this task. These databases are planned to be used in the Regional Travel Demand Model and will also be used in local transportation projects. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Databases of requested auxiliary datasets.

Work Performed and Status: Tracking of various significant features and developments is a continuous effort. In FY2022, schools, apartments, cemeteries, and hotels were reviewed and updated categorically. Work on the hospitals category was begun.

Transportation Planning Funds were used to support work activities. Work on this project will continue in FY2023.

TASK 2.0 – FUNDING SUMMARY

Funding Source	Amount Programmed (2-year)	Authorized (2-year) ¹	Expended (FY2022)	Amount Expended (2-year)	Balance of Programmed (2-year)	% Expended of Programmed (2-year)	Balance of Authorized (2-year)	% Expended of Authorized (2-year)
2.01 - Travel Forecasting Support								
TPF	\$1,922,800	\$929,900	\$1,061,556	\$1,061,556	\$861,244	55.2%	(\$131,656)	114.2%
STBG ²	\$3,423,500	\$2,030,935	\$728,248	\$728,248	\$2,695,252	21.3%	\$1,302,688	35.9%
LOCAL	\$373,000	\$372,925	\$0	\$0	\$373,000	0.0%	\$372,925	0.0%
Subtotal	\$5,719,300	\$3,333,760	\$1,789,804	\$1,789,804	\$3,929,496	31.3%	\$1,543,956	53.7%
2.02 - Transportation Data Development								
TPF	\$463,400	\$251,200	\$228,033	\$228,033	\$235,367	49.2%	\$23,167	90.8%
STBG	\$319,000	\$257,724	\$114,613	\$114,613	\$204,387	35.9%	\$143,112	44.5%
TXDOT	\$79,800	\$64,431	\$28,653	\$28,653	\$51,147	35.9%	\$35,778	44.5%
Subtotal	\$862,200	\$573,356	\$371,299	\$371,299	\$490,901	43.1%	\$202,057	64.8%
2.03 - Demographic Data and Forecasts								
TPF	\$1,244,900	\$690,600	\$690,244	\$690,244	\$554,656	55.4%	\$356	99.9%
Subtotal	\$1,244,900	\$690,600	\$690,244	\$690,244	\$554,656	55.4%	\$356	99.9%
Total	\$7,826,400	\$4,597,716	\$2,851,347	\$2,851,347	\$4,975,053	36.4%	\$1,746,369	62.0%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Chapter VI. Funding Summaries – Transportation Planning Funds (Two-Year Total) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

² A portion of the programmed and authorized funding includes funding that was transferred from TxDOT to FTA.

TASK 2.0 – TPF FUNDING SUMMARY FY2022

	Amount Programmed	Amount Authorized ¹	Amount Expended	% Expended Programmed	Balance of Authorized	% Expended Authorized
2.01 - Travel Forecasting Support						
TPF	\$929,900.00	\$929,900.00	\$1,061,556.41	114.2%	(\$131,656.41)	114.2%
2.02 - Transportation Data Development						
TPF	\$251,200.00	\$251,200.00	\$228,032.73	90.8%	\$23,167.27	90.8%
2.03 -Demographic Data and Forecasts						
TPF	\$690,600.00	\$690,600.00	\$690,243.77	99.9%	\$356.23	99.9%
Total	\$1,871,700.00	\$1,871,700.00	\$1,979,832.91	105.8%	(\$108,132.91)	105.8%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Chapter VI. Funding Summaries – Transportation Planning Funds (Two-Year Total) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

III. Task 3 – Short-Range Planning and Programming, and Air Quality and Transit Operations

The continued growth in population and employment in the Dallas-Fort Worth metropolitan area and the resultant travel demand, coupled with the challenges facing the region with regard to air quality, requires the Metropolitan Planning Organization planning and programming process be both comprehensive and proactive in addressing the region's mobility and air quality needs. Close coordination with the Texas Department of Transportation, local governments, and transportation authorities to identify, evaluate, select, and prioritize those transportation projects to be included in the Transportation Improvement Program is a key function of this work program element. The companion effort of performing air quality conformity analyses in order to ensure new project and programs being proposed for the region will have a positive impact on the region's air quality is a required and vital step toward implementation of these improvements. Programs addressing the demand for mobility, the transportation supply, and the importance of new technology are included as part of a coordinated and comprehensive planning approach to the region's air quality problem. In addition, this task recognizes the importance of continued support for planning associated with improving the expanding public transportation in the Dallas-Fort Worth area. Implementation activities aimed at helping the region reach attainment of the ozone standards and enhance transit service in the region are also included.

3.01 Transportation Project Programming

The Dallas-Fort Worth Metropolitan Planning Organization (MPO) coordinates with the Texas Department of Transportation (TxDOT), transit providers, local governments, and other transportation partners to prioritize and select projects for inclusion in the Transportation Improvement Program (TIP). The Regional Transportation Council (RTC) and North Central Texas Council of Governments (NCTCOG) continue to monitor and implement projects in the TIP.

Transportation Improvement Program

Transportation Planning Funds

The Transportation Improvement Program (TIP) is a staged, multiyear program of projects approved for funding by federal, State, and local sources within the Dallas-Fort Worth area. Before transportation projects are selected and listed in the TIP, they are evaluated to ensure consistency with the current Metropolitan Transportation Plan and Air Quality Conformity determination. These steps ensure that projects improve regional safety and mobility without detrimentally impacting air quality within the Dallas-Fort Worth area. In addition, the TIP has been analyzed to ensure that project listings are fiscally constrained to available resources, meaning that projects can only be included if federal, State, local, or other funds are available to cover project costs. Every two years a new TIP document is developed to which updates are made on a quarterly basis.

As funds are made available, the Regional Transportation Council issues funding initiatives or Calls for Projects to local governments and transportation agencies. It is anticipated that new projects will be selected in the FY2022 and FY2023 timeframe using federal, State, and local funding. As new funding sources or additional allocations arise, appropriate project processes will be initiated. In addition, coordination will continue with the Texas Department of Transportation

on the update of the region's 10-Year Plan and inclusion of projects into the Unified Transportation Program.

MPO staff will also provide general assistance to implementing agencies, elected officials, and the public regarding funded transportation projects, including the development and implementation of transportation solutions. In addition, projects will be tracked and monitored to ensure timely completion. Anticipated products in FY2022 and FY2023 include:

- A financially constrained 2023-2026 TIP document in FY2022;
- Quarterly TIP modifications in alignment with the Statewide Transportation Improvement (STIP) revision cycles;
- Calls for Projects and funding initiatives as funding becomes available; and
- A report to the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), and TxDOT that details the obligation of federal funds to individual projects at the end of each calendar year.

Work Performed and Status: A financially constrained 2023-2026 TIP document was submitted to TxDOT for inclusion in the STIP. This TIP contains 489 projects totaling \$8.58 billion. In addition to development of the new TIP, 683 modifications to the 2021-2024 TIP were completed through quarterly revision cycles, including 364 modifications that required Federal Highway Administration or Federal Transit Administration approval. The Regional Transportation Council approved \$117.8 million in funding through various project selections in FY2022. An update to the Regional 10-Year Plan that included new projects and revisions to existing projects was also approved by the RTC after coordination between NCTCOG and TxDOT staff. To date, \$12.68 billion of projects have been funded through the region's 10-Year Plan. The FY2021 Annual Project Listing was initiated, and conversations are ongoing with TxDOT regarding how to represent certain transactions.

Transportation Planning Funds were utilized to support work activities. This project is ongoing and work will continue in FY2023.

Regional Project Tracking, Monitoring, Assessment, and Software Development Project

Other Funding Sources

A series of improvements to the transportation project information system (TIP database) will continue. The goal of this project is to enable the tracking of projects by individual phase, including the cost, funding, start date, and completion date of each project phase. This project was originally created in response to the federally mandated year of expenditure/total project cost requirements, as well as the increased complexity involved with funding, tracking, and monitoring transportation projects. Expansion of this data management system will reduce administrative project review time and increase the availability of timely project information. This project is funded with Surface Transportation Block Grant Program funds and Transportation Development Credits. Anticipated products include work on the interactive, web-based interfaces noted below:

- Deployment of additional enhancements to the TIP modification editing interface expected in FY2022 and FY2023; and

- Deployment of updates to existing modules and additional modules in FY2022 and FY2023 including TIP development, project status tracking, additional Geographic Information Systems (GIS) mapping tools, and obligations tracking.

Work Performed and Status: An updated Funding Allocation module for the Revenue and Project Tracking System was deployed and tested to verify a user-friendly, interactive, real-time demonstration of financial constraint. In addition, the team continued to document requirements and functionality for the creation of a TIP development module. Over the course of FY2022, 52 enhancements and updates were made to the Import Tool script, and TIP Modification Editing, Invoicing, and Reports modules. Discussions were held to plan new Geographic Information Systems (GIS) mapping tools, project status tracking, and obligations tracking.

Surface Transportation Block Grant Program funds (CSJ 0902-00-240) and Transportation Development Credits were utilized to support work activities. This project is ongoing and work will continue in FY2023.

Regional Toll Revenue Fund Management and Project Tracking Implementation

Other Funding Sources

Since 2007, MPO staff have tracked Regional Toll Revenue funds and projects, and efforts to monitor selected projects will continue. Regional Toll Revenue (RTR) funds will continue to support these activities. Anticipated products in FY2022 and FY2023 include:

- An up-to-date RTR-funded project list and account balances;
- Coordination with TxDOT and the NCTCOG Administration Department on RTR fund and expenditure discrepancies;
- Tracking the status of environmental clearance for RTR-funded projects;
- Quarterly submission of RTR project changes to TxDOT for inclusion in the Texas Transportation Commission (TTC) Minute Order for authorization;
- Communication with local agencies to provide close-out information for completed RTR-funded projects;
- Updated inventory of project before-and-after pictures; and
- Tutorial videos for using the Revenue and Project Tracking System (RAPTS).

Work Performed and Status: Projects selected with RTR funds continue to be tracked and progress noted. County RTR balances were analyzed, and adjustments were made to adjust account balances as needed. Changes to projects funded with RTR requiring TTC approval were submitted after each TIP modification cycle to be included in the minute order. Efforts continued to close out completed projects. The current project before-and-after pictures have been inventoried. Tutorial videos were planned, and initial recordings were made.

Regional Toll Revenue funds (CSJ 0918-00-285) were used to support work activities. Efforts are ongoing and will continue in FY2023.

3.02 Regional Air Quality Planning

Since 1991, the North Central Texas region has been in nonattainment for the National Ambient Air Quality Standard (NAAQS) for ozone. As a result of this designation, federal and State procedures are required in order for projects identified in multimodal transportation plans to proceed to implementation. In response, a variety of air quality planning occurs to ensure these requirements are met.

Air Quality Planning

Transportation Planning Funds

The Dallas-Fort Worth State Implementation Plan (SIP) is a legal and federally enforceable plan mandated by the Clean Air Act (CAA). This plan identifies how nonattainment areas will reduce emissions from stationary, area, and mobile sources to demonstrate attainment and/or maintenance of air quality standards. In nonattainment areas, the CAA mandates federally funded and regionally significant transportation activities must conform to the SIP. Under this requirement, the Regional Transportation Council, the transportation policy body for the Metropolitan Planning Organization, is required to make an initial local-level transportation conformity determination on the Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP) before submitting recommendations to the US Department of Transportation for independent review and a final federal-level conformity determination. The conformity determination is a method to ensure federal funding and federal approval is given to transportation projects, programs, and policies consistent with regional air quality goals. In addition, many other transportation planning efforts occur throughout the year that ensure successful conformity determinations. Anticipated products in FY2022 and FY2023 include:

- Development, analysis, and monitoring of elements contained in and required of the SIP, as necessary, to meet air quality requirements;
- Assistance with addressing specific data and technical requests;
- Tracking and responding accordingly to statewide and national rules and guidance affecting the nonattainment area and surrounding counties such as the 8-hour NAAQS for ozone and other primary or secondary pollutants;
- Monitoring during ozone season and end-of-year summary of pollutant levels at monitoring stations located throughout the region;
- A successful regional Air Quality Conformity analysis incorporating new or updated projects proposed for inclusion in the MTP and TIP;
- Monitoring of the timely implementation of Transportation Control Measures;
- Monitoring, collection, and update of Mobile Source Emission Reduction Strategies commitments for annual reporting requirements of emission reductions projects;
- Guidance, rules, and proposals that incorporate NCTCOG direction/expertise and/or experience related to NAAQS and mobile source issues;
- Evaluation of technical models used in regional air quality planning, with feedback to agency developing the model(s) and, as appropriate, creation of in-house applications to successfully run models;
- Presentations for workshops, technical committees, student chapters, and training sessions; and
- Update of the NCTCOG website with latest air quality information.

Work Performed and Status: During FY2022, planning continued for the region's ozone reclassification under two National Ambient Air Quality Standards (NAAQS). This included coordination with the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) to understand upcoming requirements and regulatory guidelines. Ongoing review of the Federal Register and the TCEQ's Rules, Proposals, and Adoptions was conducted.

Work continued on the development of a Transportation Conformity analysis for the updated NCTCOG Metropolitan Transportation Plan and associated Transportation Improvement Program for North Central Texas. The Conformity Determination is awaiting Federal Highway Administration approval.

Updates to the Mobile Source Emission Reduction Strategies (MoSERS) commitments of Congestion Mitigation and Air Quality Improvement Program (CMAQ)-funded projects continued as needed, based on project parameter updates, for inclusion in Transportation Improvement Program reporting and the annual CMAQ report. Staff completed and submitted the 2021 annual CMAQ report to the Texas Department of Transportation. Review was conducted to ensure CMAQ emissions reductions for performance measure targets were met for FY2022 (see UPWP Subtask 4.04 for more information on performance measures).

Assistance was provided to support statewide and national efforts including the Association of Metropolitan Planning Organizations Air Quality Work Group, the Transportation Research Board's Transportation and Air Quality Committee, the MOVES Review Work Group, the Coordinating Research Council, the statewide Technical Working Group for Mobile Source Modeling, and the Advisory Council of the Texas Air Quality Research Program.

The NCTCOG air quality website was continuously updated with relevant information, including information on the SIP, Transportation Conformity, and the Environmental Protection Agency's 2008 and 2015 NAAQS for ozone. During ozone season, daily updates were made to allow public awareness to real-time ozone levels and trends. Tracking the relationship and impacts of COVID-19 on air quality also continued.

Transportation Planning Funds were used to support work activities. This project is ongoing and will continue in FY2023.

Regional Greenhouse Gas Emissions Inventory Program

Transportation Planning Funds

Regional greenhouse gas (GHG) emissions inventories provide regions an opportunity to understand GHG origins and magnitudes. This allows sound decision making to better manage emission levels through regional GHG emissions goals; enable cities who have their own inventories to compare themselves against a regional inventory; and provide a framework upon which to evaluate, analyze, and prioritize GHG reduction actions. Work is continuing on the emissions inventory initiated in FY2021 by NCTCOG staff to understand sources and sectors contributing to regional GHG emissions and begin development of a GHG emissions reduction strategy catalog. Staff will continue identifying primary sectors that contribute to GHG emissions at the regional level by analyzing model output results, and evaluating, selecting, and prioritizing emissions reduction measures appropriate for cities and other local governments toward creation of the catalog. Anticipated products in FY2022 and FY2023 include:

- Regional Greenhouse Gas emissions inventory;
- Report of quality assurance/control of results; and
- Regional greenhouse gas emissions reduction strategy catalog.

Work Performed and Status: Creation of a regional GHG emissions inventory for the metropolitan planning area progressed and included data collection and analysis. Staff partnered with interested cities for development of citywide GHG emissions inventories. Various training was attended, as provided by the Local Governments for Sustainability, formally known as the International Council for Local Environmental Initiatives (ICLEI), to understand use of the GHG emissions calculation tool, ClearPath.

Transportation Planning Funds were used to support work activities. This project is ongoing and work will continue in FY2023.

Emission Inventories and Technical Studies

Other Funding Sources

Emission inventories estimate emission amounts from specific sources within a specified area and time interval. Transportation emission budgets used in transportation conformities are developed based upon emission inventories used in development of the State Implementation Plan (SIP) and the impact of control measures included within that SIP. Emissions are greatly impacted by regionally specific data, so updated regional inventories analysis is necessary to better predict future-case emission impacts from control strategies, vehicle miles traveled, vehicle activity from outside the nonattainment area, and evaporative emissions. This work element will be supported through Texas Commission on Environmental Quality funds and is ongoing throughout FY2022 and FY2023. Anticipated products include:

- A variety of emission inventories for federal, state, or local requirements; and
- Mobile source technical analysis performed to enhance state of the practice.

Work Performed and Status: During FY2022, the Dallas-Fort Worth On-Road Mobile Vehicle Miles Traveled Offset emissions inventory was completed. This effort was to support development of an SIP revision for the 2008 ozone NAAQS.

Funds from the TCEQ and NCTCOG local funds were used to support work activities. This project is ongoing and work will continue in FY2023.

Rider 7 Air Quality Planning Activities

Other Funding Sources

NCTCOG received funding from the Texas Commission on Environmental Quality (TCEQ) to carry out eligible air quality planning activities under Rider 7 of the TCEQ's legislative appropriation. Activities will include assessment of fleet vehicle emissions and monitoring of air quality using mobile sensing equipment in Hood and Hunt counties. University assistance will be used. Work will begin in FY2022 and be ongoing throughout FY2023. Anticipated products include:

- Quantification of emissions reductions that could be achieved through fleet vehicle replacement activities;
- Mobile source technical analysis to enhance state-of-the-practice; and
- Final report with results of project work.

Work Performed and Status: Under Rider 7 funding, work began on two projects in Hood and Hunt counties: fleet emissions inventories and ambient monitoring. Coordination and planning with the TCEQ occurred for the development of Statements of Work and Quality Assurance/Control Project plans. Scopes for each of the projects are being developed for insertion into contracts.

Funds from TCEQ were used to support work activities. This project is ongoing and work will continue in FY2023.

3.03 Air Quality Management and Operations

The purpose of this subtask is to identify, design, implement, and promote voluntary local strategies to reduce transportation-related emissions, energy, and air quality impacts. Emphasis is placed on achieving reductions in ozone precursor emissions to achieve compliance with federal ozone standards, but work includes efforts to comprehensively reduce emissions of other air pollutants. In all areas, NCTCOG works collaboratively with local governments, peer organizations, State and federal agencies, and other stakeholders to advance emission-reducing activities. NCTCOG also carries out responsibilities as the Department of Energy (DOE)-designated Dallas-Fort Worth Clean Cities Coalition and as an Affiliate of the Environmental Protection Agency (EPA) SmartWay Transport Program.

Air Quality Initiatives: Fleets, Consumers, and Communities

Other Funding Sources

The transportation sector contributes nearly half of all ozone-forming pollution in the Dallas-Fort Worth ozone nonattainment area. Thus, NCTCOG works to reduce emissions from the transportation sector by promoting and facilitating projects that reduce emissions from vehicles, equipment, and related sources. Efforts include promoting retirement of older, higher-polluting vehicles and equipment, adoption of cleanest available technologies that include zero-emission vehicles, and operational/behavioral strategies that ensure vehicles are operated in an efficient manner with minimized emissions (e.g., idle reduction). To reach the full spectrum of the transportation sector, efforts target all end-users – that is, both fleets and consumers. In addition, NCTCOG works toward “community readiness” by collaborating with local governments, workplaces, and others to help ensure regulatory frameworks and other factors create conditions that are supportive for end-users to adopt cleaner technologies. This work element will be supported through Surface Transportation Block Grant Program funds and Transportation Development Credits and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Funding support, technical assistance, and outreach and education to facilitate emissions-reducing projects among local vehicle fleets, including use of alternative fuel vehicles, idle reduction, and other emissions-reducing measures;

- Technical assistance, outreach and education, and promotion of financial incentives to support emissions-reducing activities among consumers, including adoption of clean vehicle technologies (e.g., electric vehicles [EVs]), proper maintenance, and vehicle operation strategies that reduce emissions (e.g., idle reduction);
- Technical support, funding assistance, and outreach and education to support community readiness efforts by local governments, workplaces, and others who wish to facilitate adoption of emissions-reducing technologies and initiatives;
- Identification and preparation of competitive grant applications to seek additional funds to support regional initiatives;
- Work associated with serving as the Dallas-Fort Worth Clean Cities Coalition; and
- Support for local government peer exchange on comprehensive air quality issues through the Regional Integration of Sustainability Efforts (RISE) Coalition, Air Quality Health Monitoring Task Force, and other avenues.

Work Performed and Status: Four Calls for Projects (CFPs) were administered, and implementation began for awardees relating to emissions-reducing projects: the Clean Fleets North Texas 2020 CFPs, the North Texas Emissions Reduction 2020 CFPs, the North Texas Freight Terminal Electrification 2020 CFPs, and the North Texas Clean Diesel Project 2021 CFPs. Across these initiatives, a total of 11 heavy-duty diesel vehicle replacements and two diesel non-road equipment replacements were awarded. Implementation of projects awarded in previous fiscal years continued, including reimbursement of 21 heavy-duty vehicle and equipment replacements. Fifty email blasts promoting or announcing various funding opportunities were distributed throughout the year to the “Air Quality Funding” email list, which added 125 subscribers.

Staff analyzed one local fleet inventory for grant suitability and oversaw completion of an electrification analysis for a second fleet. Outreach and funding initiatives resulted in six additional organizations adopting the RTC Clean Fleet Policy during the fiscal year, bringing the total number of adopting entities to 90. NCTCOG provided presentations about air quality and vehicle technologies (especially EV technology) at events held throughout the region. Idle reduction best practices and consumer-related educational materials continued to be maintained on the Engine Off North Texas website. The Regional Smoking Vehicle Program and car care awareness were promoted to inform the public how consumer behaviors impact vehicle emissions.

NCTCOG continued to promote to local governments and facilitate adoption of Locally Enforced Idling Restrictions through the revised Regional Transportation Council Resolution 21-6. Engagement with fleets and commercial freight stakeholders continued through the Saving Money and Reducing Truck Emissions Program by hosting one webinar and sending newsletter updates and promoting the EPA SmartWay Transport Program and EPA Verified Technologies.

NCTCOG continued to serve as the Dallas-Fort Worth Clean Cities (DFW Clean Cities) Coalition and updated content and structure of www.dfwcleancities.org. Staff continued to provide outreach and education to fleets, property owners, or other stakeholders about alternative fuel vehicles (especially electric vehicles), refueling or recharging infrastructure, and related funding opportunities, and met with stakeholders frequently. Annual Clean Cities reporting was used to implement the annual DFW Clean Cities Fleet Recognition awards, and staff scored 60 fleet reports to develop award recommendations in preparation for distributing awards in early Fiscal Year 2023. Electric vehicle adoption trends continued to be monitored and staff made improvements to the registration data tools at <https://www.dfwcleancities.org/evsinnorthtexas> and <https://www.dfwcleancities.org/evsintexas>, which are heavily used by external stakeholders. Expanded content on the impacts of electric vehicles, including adoption trends and planning

considerations, was incorporated into the Metropolitan Transportation Plan. Staff drafted resources on the topic of EV readiness in building codes or construction standards. Collaboration with local and State stakeholders continued to address policy-related and community readiness strategies related to reducing emissions impacts of idling vehicles. Websites related to these policies were maintained.

Staff continued to support the Regional Integration of Sustainability Efforts (RISE) Coalition and held four meetings of a working group related to discussing the impacts of transportation-related air pollution on public health. Staff also continued support to partnering with local government law enforcement agencies through the Regional Emissions Enforcement Program. Stakeholder meetings were coordinated to discuss evolving technology to improve the needs of State vehicle inspection programs for consumer vehicles. Staff also established a mobile emissions enforcement task force with participating county sheriffs' departments and State agencies. Two task force meetings were hosted in FY2022.

Surface Transportation Block Grant Program funds (CSJs 0918-00-316 and 0918-00-317) and Transportation Development Credits were used to support work activities. This project is ongoing and will continue in FY2023.

Clean Fleet Technologies Program

Other Funding Sources

Emissions reductions can be achieved through use of clean vehicle technologies, including alternative fuel vehicles, new low-emitting conventional vehicles that replace older vehicles that are scrapped, and use of technologies that support idle-reduction efforts and other efficiencies. NCTCOG sometimes provides direct funding assistance when eligible technologies are available. NCTCOG also facilitates completion of emissions-reducing projects in the Dallas-Fort Worth area by promoting incentives available from other agencies and providing technical assistance or other application support. This work element will be supported through Congestion Mitigation and Air Quality Improvement Program funds and Transportation Development Credits and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Planning efforts to develop funding initiatives for clean vehicle technologies;
- Implementation and monitoring of funded technology projects; and
- Promotion of financial incentives for clean vehicle technologies and technical support to prospective applicants.

Work Performed and Status: Staff developed and administered a Call for Projects to subaward funds to public-sector entities for installation of publicly accessible electric vehicle charging stations. Awards were made to six public entities for a total of 19 charging stations. Implementation efforts began, including development of agreements, coordination of environmental clearance, and procurement and Buy America review. Staff also continued to oversee implementation of projects by recipients of funding from previously awarded funding initiatives to ensure successful completion. Staff performed 14 site visits and monitored subrecipients to ensure grant requirements were met. Promotion of funding opportunities continued throughout the year through email blasts, targeted outreach, and maintenance of current information at www.nctcoq.org/aqfunding.

Congestion Mitigation and Air Quality Improvement Program funds (CSJ 0918-00-254) and Transportation Development Credits were used to support work activities. This work is ongoing and the project will continue into FY2023.

Alternative Fuels Corridor Study: IH 45 Corridor

Other Funding Sources

NCTCOG will develop a plan for deployment of infrastructure that supports the use of zero-emission vehicles (ZEV) along Interstate 45, with emphasis on supporting the transition of medium- and heavy-duty vehicles used in goods movement. The scope of the plan will include both EV charging and hydrogen fueling infrastructure to support both battery electric and hydrogen fuel cell electric vehicles. Development of the plan will include collaboration with stakeholders representing various industry perspectives (i.e., fuel providers, fleets, and utilities), State and federal agencies, and the Houston-Galveston Area Council. This work element will be supported through Federal Highway Administration funds and Regional Transportation Council Local funds. This element is ongoing throughout FY2022. Anticipated products include:

- Stakeholder lists and meetings;
- Case studies;
- A Zero Emissions Vehicle Infrastructure Deployment Plan; and
- A workshop showcasing plan elements and available vehicle technologies.

Work Performed and Status: Stakeholder meetings were held in February and June 2022 to solicit input on proposed siting recommendation methodology and the draft plan document. A workshop was hosted in April 2022 that included an overview presentation of this project, as well as technical presentations about battery electric trucks, hydrogen fuel cell electric trucks, and fueling infrastructure for each type of vehicle. The workshop included an opportunity for ride-alongs in several different types of zero-emission vehicles. The infrastructure deployment plan was completed. Both the plan and proceedings from the workshop are available at www.nctcoq.org/IH45-ZEV.

Federal Highway Administration funds (CSJ 0918-00-359) and Regional Transportation Council Local funds were used to support work activities. This work is complete.

Dallas-Fort Worth Clean Cities

Other Funding Sources

Since 1995, NCTCOG has been designated by the US Department of Energy (DOE) as the host agency for the Dallas-Fort Worth Clean Cities Coalition (DFWCC). DFWCC is part of a national network of local coalitions supported by national laboratories and the DOE. Through DFWCC, staff work to improve transportation efficiency and reduce emissions by increasing use of alternative fuels, idle reduction, fuel economy improvements, and other measures that conserve energy or reduce emissions. The coalition includes collaboration with a range of stakeholders, including fleets, consumer groups, industry representatives, local governments, utilities, and others. This work element will be supported through funds provided by the Department of Energy and private funding sources. University assistance may be used. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Participation in calls, conferences, and other coordination with DOE, national laboratory staff, and other coalitions;
- Planning assistance for alternative fuel infrastructure, both within the NCTCOG region and along highway corridors connecting North Texas to other areas;
- Meetings, workshops, events, or tours that feature alternative fuels or other clean vehicle technologies to raise awareness and understanding among consumers and fleets;
- Technical assistance and coaching to fleets with regard to use of alternative fuels and other advanced vehicle technologies;
- Training for first responders, fleet managers, local government staff, and others about alternative fuel vehicle technologies and associated infrastructure; and
- Submittal of reports to DOE and national laboratory staff.

Work Performed and Status: Staff participated in two series of monthly calls – one with the National Renewable Energy Lab and one with the National Energy Technology Laboratory – both of which included other coalitions and provided opportunities for peer exchange and updates on Coalition activities. Passage of the Bipartisan Infrastructure Law authorized funding for development of statewide EV charging infrastructure networks, beginning with development of a plan, through the National EV Infrastructure Formula Program. This prompted an increased emphasis on EV charging infrastructure among Clean Cities stakeholders. To plan for development of EV charging infrastructure, staff participated in the Clean Cities Corridor Council to collaborate at the national level, in the Texas Department of Transportation working group for development of the Texas EV Charging Plan at the State level, and held a series of meetings with local governments to discuss development of infrastructure within the region, including a session focused on building codes. Staff held seven different events to provide education and/or facilitate peer exchange about alternative fuel and other technologies, including sessions about school bus technologies, electric police vehicles, and fleet vehicles more broadly. Events included National Drive Electric Week, targeting light-duty vehicles largely for the average consumer, and a Zero Emission Vehicle workshop focused on medium- and heavy-duty vehicles. Two first responder training sessions focused on proper procedures and safety responding to electric vehicle incidents were held. Reports were submitted throughout the year as appropriate.

Department of Energy funds and local funds were used to support work activities. This work is ongoing and the project will continue into FY2023.

Electric Vehicle Widescale Analysis for Tomorrow's Transportation Solutions (EV-WATTS)

Other Funding Sources

In its role as the host agency of DFWCC, NCTCOG is a partner in this project to collect current, relevant, real-world data regarding use and operation of EVs and EV charging stations. Both fleets and individual drivers will be recruited to provide data, which will be anonymized as part of a nationwide project. This work element will be supported through funds provided by the Department of Energy and local funding sources and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Participation in calls and webinars with the project team;
- Recruitment of fleets and individual EV drivers to participate in the project; and
- Distribution of project reports.

Work Performed and Status: Participation in project-wide calls and webinars continued throughout the year, and staff continued to recruit additional data participants through the project sign-on deadlines. Staff completed data validation as requested by the project team.

Local funds were used to support work activities. This work is ongoing and the project will continue into FY2023.

Natural Gas Vehicle Updated Performance Tracking Integrating Maintenance Expenses (NGV UP-TIME) Study

Other Funding Sources

In its role as the host agency of DFWCC, NCTCOG is a partner with Clean Fuels Ohio to recruit local freight and goods movement fleets to participate and provide repair and maintenance data for an analysis project, Natural Gas Vehicle (NGV) Updated Performance Tracking Integrating Maintenance Expenses (UP-TIME). This project will provide fleets and natural gas vehicle industry stakeholders relevant, real-world information about NGV maintenance costs. The project will help improve total cost of ownership calculations and determine the maintenance cost differences between NGV technology generations and current advanced clean diesel engines. This work element will be supported through funds provided by the Department of Energy and local funding sources and will be ongoing throughout FY2022. Anticipated products include:

- Participation in calls and webinars;
- Recruitment of fleets and drivers to participate in the project; and
- Distribution of project reports.

Work Performed and Status: No work was conducted in FY2022. This project is ongoing and will continue in FY2023.

Regional Energy Management

Other Funding Sources

In collaboration with the NCTCOG Environment and Development Department, and funded through the State Energy Conservation Office (SECO), NCTCOG Transportation Department staff have launched efforts to increase the capacity and resources of local governments with regard to energy management, including energy efficiency, energy conservation, and use of renewable energy. Reduction in energy consumption helps improve air quality by reducing emissions associated with energy generation, or at least mitigating increased demand associated with population and economic growth. As EV adoption grows and the transportation system and energy grid become more integrated, this work will grow in importance. This work element will be supported through funds provided by the Department of Energy and Regional Transportation Council Local funds and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Technical support, outreach, and education to local governments with regard to energy management, renewable energy, energy efficiency, and energy diversification/redundancy for emergency response;

- Engagement with local governments and SECO with regard to required annual energy reporting;
- Maintenance of websites at www.gosolartexas.org and www.conservenorthtexas.org;
- Engagement with utilities; and
- Submittal of reports to SECO.

Work Performed and Status: Information related to energy management and energy efficiency was distributed at four outreach events, and staff participated in or organized webinars addressing codes, funding, and SolSmart designation. Two meetings focusing on utility engagement were held, and staff made individual outreach calls to several local electric utilities to make introductions and begin identifying areas of mutual interest for collaboration. Best-practice resources were developed, and website maintenance continued. Staff provided technical review of transportation elements incorporated into a feasibility study of processing organic waste into renewable natural gas. Staff continued outreach to increase compliance with reporting requirements established under Texas Health and Safety Code §388.005(c), resulting in reports from 85 local governments from the NCTCOG area.

Department of Energy funds (through the State Energy Conservation Office) and Regional Transportation Council Local funds were used to support work activities. This project is ongoing and the project will continue in FY2023.

Air Quality Initiatives: Energy Efficiency

Other Funding Sources

Certain air quality initiatives cross into sectors outside of transportation. Occasionally, staff efforts are devoted to work associated with the built environment, including renewable energy and energy efficiency efforts, and utility engagement. This is becoming more common with the growth of EVs and the deepening relationship between the transportation sector and energy grid. This work element will be supported through Regional Transportation Council Local funds and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Technical support, outreach, and education to local governments with regard to energy management, renewable energy, energy efficiency, and energy diversification/redundancy for emergency response;
- Engagement with local governments and the State Energy Conservation Office (SECO) with regard to required annual energy reporting;
- Maintenance of websites at www.gosolartexas.org and www.conservenorthtexas.org;
- Engagement with utilities;
- Evaluation of emissions associated with energy generation; and
- Evaluation of opportunities for on-site renewables at NCTCOG offices.

Work Performed and Status: Staff carried out administrative activities associated with the preceding Regional Energy Management Project in preparation of and closeout for the contract that provided Department of Energy funds. Quantification of regional greenhouse gas emissions associated with energy production was completed in association with the regional Greenhouse Gas Emissions Inventory Program detailed under the Air Quality Planning section in UPWP Subtask 3.02.

Regional Transportation Council Local funds were used to support work activities. This project is ongoing and work will continue in FY2023.

Clean Diesel Grants: Clean Fleets North Texas

Other Funding Sources

NCTCOG was successful in competing for grant funding from the Environmental Protection Agency (EPA) Diesel Emission Reduction Act (DERA) National Grants Program for two consecutive years to subaward projects for local government fleets to replace older, high-emitting diesel vehicles and equipment. NCTCOG has distributed funding through open, competitive Calls for Projects and continues working with partners to implement awarded projects. This work element will be supported through Environmental Protection Agency funds and local funds provided by subrecipient partners. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Replacement of older, heavy-duty diesel vehicles and equipment, including purchases of new units and scrapping of replaced units;
- Management of subaward implementation, including funding disbursement and oversight and compliance activities; and
- Submittal of reports to EPA.

Work Performed and Status: Committee approvals were obtained in the first few months of the fiscal year to complete subaward of funds available from this project for vehicle and equipment replacement activities (the funds had been made available regionwide under a Call for Projects during the previous fiscal year). Administrative steps to enter into an agreement for these funds were completed, and staff continued to oversee implementation of projects previously awarded. Reimbursement of subaward funds was issued for 15 vehicle/equipment replacements over the year. Quarterly reports were drafted and submitted to EPA as required. This project included two awards from EPA: one received in 2017 and one in 2018. All subawarded activities associated with the 2017 award were completed, and final reports were drafted.

Environmental Protection Agency funds and local funds were used to support work activities. This project is ongoing and work will continue in FY2023.

EPA DERA 2018: North Texas Freight Terminal Electrification

Other Funding Sources

NCTCOG was awarded grant funding from the Environmental Protection Agency (EPA) Diesel Emission Reduction Act (DERA) National Grants Program to award rebates for idle reduction technology and eligible equipment at freight distribution centers and terminals. The funding is for installation of EPA SmartWay verified electrified parking spaces to reduce idling from transport refrigerated units (TRUs) of heavy-duty diesel trucks and trailers. NCTCOG has opened competitive Calls for Projects and continues to promote and implement awarded funds. This work element will be supported through Environmental Protection Agency funds and local funds provided by subrecipient partners. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Installation of EPA SmartWay verified electrified parking spaces and eligible equipment to reduce diesel engine idling from TRUs;
- Management of rebate implementation, including funding disbursement and oversight and compliance activities; and
- Submittal of reports to EPA.

Work Performed and Status: No work was conducted in FY2022. This project is ongoing and will continue in FY2023.

EPA DERA 2019: North Texas Emissions Reduction Project

Other Funding Sources

NCTCOG was awarded grant funding from the Environmental Protection Agency (EPA) Diesel Emission Reduction Act (DERA) National Grants Program to award rebates for vehicle and equipment replacement, including electrification equipment and rail idle reduction technology. NCTCOG has opened a competitive Call for Projects and continues to promote and implement awarded funds. This work element will be supported through Environmental Protection Agency funds and local funds provided by subrecipient partners. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Replacement of older, heavy-duty diesel vehicles and equipment, including purchases of new units and scrapping of replaced units;
- Installation of rail idle-reduction technologies;
- Management of rebate implementation, including funding disbursement and oversight and compliance activities; and
- Submittal of reports to EPA.

Work Performed and Status: NCTCOG completed administrative tasks associated with internal meetings, answered rebate recipient questions, and updated web page content. Agreements and scopes of work were executed with multiple rebate recipients. Three rebate recipients took delivery of their new vehicles while NCTCOG processed their reimbursement requests. NCTCOG performed three rebate recipient site visits to witness and document vehicle and equipment destruction as required by the grant. Staff collected and reviewed monthly progress reports from the rebate recipients with executed agreements.

Environmental Protection Agency funds and local funds were used to support work activities. This project is ongoing and will continue in FY2023.

EPA DERA 2020: North Texas Clean Diesel Project

Other Funding Sources

NCTCOG was awarded grant funding from the Environmental Protection Agency (EPA) Diesel Emission Reduction Act (DERA) National Grants Program to award rebates for replacing diesel vehicles, equipment, or engines; installing electric recharging infrastructure if necessary; and/or installing idle-reduction technology. NCTCOG works to open a competitive call for projects and continues to promote and implement awarded funds.

This work element will be supported through Environmental Protection Agency funds and local funds provided subrecipient partners. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Replacement of older, heavy-duty diesel vehicles and equipment, including purchases of new units and scrappage of replaced units;
- Installation of idle reduction technologies;
- Management of rebate implementation, including funding disbursement and oversight and compliance activities; and
- Submittal of reports to EPA.

Work Performed and Status: No work was conducted in FY2022. This project is ongoing and will continue in FY2023.

North Central Texas Clean School Bus Program

Other Funding Sources

NCTCOG has been approved as a third-party administrator of Supplemental Environmental Project (SEP) funds by the Texas Commission on Environmental Quality (TCEQ). NCTCOG receives SEP contributions when TCEQ enters a settlement with a respondent related to certain enforcement actions. NCTCOG uses SEP funds to support replacement of old, high-polluting school buses with newer, cleaner-burning buses. This work element will be supported through the Texas Commission on Environmental Quality from local or private funding sources as SEP contributions and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Replacement of old diesel school buses, including purchase of new units and scrappage of replaced units;
- Management of award implementation, including funding disbursement and oversight activities; and
- Submittal of reports to TCEQ.

Work Performed and Status: Contracts were executed with the Cedar Hill Independent School District (ISD) and Kemp ISD for replacement of a total of three school buses. The three school buses were ordered, and one school bus was delivered to Kemp ISD. Staff began processing a reimbursement for Kemp ISD. Reports were submitted throughout the year.

Texas Commission on Environmental Quality funds and local contributions were used to support work activities. This project is ongoing and work will continue in FY2023.

University Partnership: Transportation Health Risks

Other Funding Sources

Health impacts associated with pollution from the transportation system are a growing concern for local governments in the NCTCOG region. NCTCOG funded a study through the University Partnership Program to assess what these impacts may be to inform future development of potential control strategies to reduce exposure and impacts. This work element will be supported

through Regional Transportation Council Local funds. University assistance will be used. This element is ongoing throughout FY2022. Anticipated products include:

- A report assessing health impacts associated with transportation conducted under the University Partnership Program.

Work Performed and Status: The participating university performed a non-regulatory pollutant sensor evaluation and model analysis within the Metropolitan Planning Area to evaluate the impacts of local roadway networks on air quality and public health. The university's model, with the use of the Motor Vehicle Emissions Simulator (MOVES) and Research LINE (R-LINE) link-based models to estimate freeway pollutant emissions and exposure levels throughout the region through dispersion frameworks, were used. A final report was submitted

Regional Transportation Council Local funds were used to support work activities. This project is complete and will not continue in FY2023.

Transportation Low-Emissions Vehicle

Other Funding Sources

The NCTCOG Transportation Department provides a low-emission vehicle for staff use in carrying out NCTCOG business such as attending meetings, site visits, or outreach events, and transporting employees, committee members, and other individuals attending meetings at NCTCOG or other locations. This work element will be supported through Regional Transportation Council Local funds and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Purchase or lease, operation, and maintenance of low-emission vehicle(s).

Work Performed and Status: One low-emissions vehicle was operated and maintained for staff business use. The vehicle was used for numerous site visits and external meetings, as well as public outreach events.

Regional Transportation Council Local funds were used to support work activities. This project is ongoing and will continue in FY2023.

On-Road Vehicle Emissions Project

Other Funding Sources

NCTCOG works to reduce emissions from the transportation sector and related emissions sources by facilitating projects that reduce emissions from vehicles. Efforts include developing and implementing a mobile emissions enforcement task force to combat the prevalence of fraudulent Texas temporary paper plates, fraudulent vehicle inspections, and emissions component tampering in vehicles. These efforts will help ensure vehicles are not circumventing the State's vehicle Inspection and Maintenance (I/M) Program. Another strategy will include collecting exhaust emissions data from vehicles to validate regional modeling efforts and identify high-emitting vehicles in order to develop air quality planning strategies in the nonattainment area. This work element will be supported through Surface Transportation Block Grant Program funds

and Transportation Development Credits. Consultant and partner assistance may be used. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Establishment of a mobile emissions enforcement task force;
- Collection of tailpipe emissions data from vehicles to develop air quality planning strategies;
- Consultant and partner agreement(s); and
- Data analysis and final report.

Work Performed and Status: No expenditures were recorded to this project during FY2022. The Federal Highway Administration determined that this initiative was not eligible for Surface Transportation Block Grant Program funding, and the project will be removed from the Work Program in Amendment #4.

3.04 Public Transportation Planning

This Work Program subtask provides funding to assist local governments and transportation providers with public transportation funding and planning activities that focus on identifying opportunities for increased service in the region, as well as improving the efficiency and effectiveness of current systems.

Trinity Metro Pedestrian Improvement Plan

Transportation Planning Funds

In FY2022 and FY2023, staff will oversee the development of a Pedestrian Improvement Plan for the Trinity Metro service area consistent with the City of Fort Worth's *Transit Moves Fort Worth* plan. The plan will review and identify pedestrian and other active transportation gaps and barriers to transit access along high-frequency (15-minute) routes and near existing transfer centers, park-n-ride lots and rail stations. Considerations will also be reviewed for potential wayfinding signage improvements. Anticipated products include:

- Gaps analysis related to existing pedestrian and active transportation infrastructure;
- Recommended improvements to infrastructure;
- Opinions of probable construction costs; and
- Plan with recommended priorities for implementation.

Work Performed and Status: Staff initiated methodology and mapping of sidewalks, and updated parcel-level development data for part of the Camp Bowie bus route corridor. A presentation for stakeholder coordination and process and prioritization methods was created.

Transportation Planning Funds were used to complete project activities. This project is ongoing and will continue in FY2023.

Public Transportation Funding and Administration

Transportation Planning Funds

This planning activity is ongoing throughout both FY2022 and FY2023, supporting the efforts of metropolitan, urban, and rural transit providers in the North Central Texas region. General responsibilities include monitoring transit appropriations, grant activities and funding issues; identifying and monitoring transit-related issues of local, regional, and national interest; and responding to citizen, consultant, State, and federal requests for data, information, or assistance. Additional responsibilities include providing technical assistance to providers by coordinating the dissemination of technical information, federal regulations, and grant requirements. Anticipated products include:

- Planning for financial needs in coordination with local public transit providers; and
- Assistance to transit providers in the development of the annual program of projects and coordination of the programming of funds in an approved Statewide Transportation Improvement Program (STIP).

Work Performed and Status: Staff coordinated with nine transportation providers and three local municipalities in the region to process 28 FY2022 Programs of Projects totaling approximately \$185.3 million in Federal Transit Administration (FTA) Formula Program funds, as well as 3.3 million in Transportation Development Credits. A workshop was held for transportation providers to receive training and information on updated federal regulations, updated processes, and financial planning of federal funds.

Transportation Planning Funds were used to support work activities. This project is ongoing and work will continue into FY2023.

Regional Public Transportation Coordination

Transportation Planning Funds

This planning activity is ongoing throughout both FY2022 and FY2023, supporting activities that further a coordinated and seamless public transportation system. This activity includes the Access North Texas Plan, which outlines coordination goals, policies, and strategies to move the North Central Texas region toward more coordinated, efficient, and seamless transportation services. Other initiatives include analyzing the availability and viability of accessible transportation options for vulnerable rural populations, providing planning assistance to partner agencies as they implement identified strategies and recommendations and gathering data on the implementation of micro-transit and on-demand services to improve transportation planning in the region. Regional coordination activities will primarily focus on the counties that comprise the Metropolitan Planning Area. Coordination with surrounding areas will be included based on the impact that public transportation connections have within the planning area boundary. University assistance will be utilized. Anticipated products include:

- An adopted update to the Access North Texas Plan;
- Implemented coordination strategies identified in the Access North Texas Plan;
- Developing transit options for the transportation needs of the disadvantaged, including low-income, seniors, and individuals with disabilities, to increase opportunities and access to public transportation;

- University Partnership Program report related to the implementation of micro-transit and on-demand services;
- University Partnership Program final report assessing the availability and viability of transportation options for vulnerable rural populations especially as it relates to employment, medical care, and recreation access;
- Coordination meetings that engage and ensure disadvantaged populations are included in planning efforts; and
- Support for transit system improvements resulting in seamless regional connectivity.

Work Performed and Status: In FY2022, staff continued data analysis for the Access North Texas public transportation coordination plan in preparation for the 2022 update. Public engagement and demographic data were reviewed to develop narratives at the county and regional levels. Regional goals and corresponding county strategies were created to address the needs, gaps, and challenges identified throughout the analysis. Finally, staff worked to combine the results of the engagement, analysis, and strategy development into chapters drafted for each individual county and the region as a whole. Staff completed the full draft of the document and plan to present it for adoption in FY2023.

In addition, strategies identified in the 2018 Access North Texas Plan continued to shape planning and funding decisions including coordination with STAR Transit and the cities of Cedar Hill and Duncanville to develop a proposal for expansion of service to those municipalities, increasing the access and mobility of individuals with disabilities and seniors.

The Access North Texas Plan also informed the continued implementation of the quarterly Regional Mobility Managers meetings to serve as a forum for regional discussion and coordination among transit providers and partners. Partners discussed the ongoing update of the Access North Texas Plan and provided feedback on draft goals and strategies. Agencies also were presented with equity tools to inform their planning efforts and increase access to public transportation options for disadvantaged populations.

The Reimagining Public Transportation for North Central Texas University Partnership Program project was initiated. The project investigates the differences in mobility, access, economic activity, household health and quality of life, worker productivity, and subsidies between a traditional public transportation model and a primarily micro-transit model. The university project team began a literature review and review of local programs and data availability. NCTCOG staff coordinated with another participating university for an upcoming project in FY2023 related to transportation options for vulnerable rural populations.

As requested throughout FY2022, staff provided planning support and technical guidance to partner agencies to increase opportunities and access to public transportation. Efforts included management of an online dashboard aggregating ridership of local providers on a quarterly basis. Staff also conducted coordination meetings with transportation providers, local governments, members of the private sector, and academic representatives as needed.

Transportation Planning Funds were used to support work activities. This project is ongoing and work will continue in FY2023.

Regional Transit Planning Assistance

Transportation Planning Funds

This planning activity is ongoing throughout both FY2022 and FY2023, supporting activities that encourage short- and long-term transit planning for local governments and transit providers. Activities include providing technical assistance and general planning support to local governments with implementation options and investigating innovative funding and implementation opportunities for regional transit systems, including fixed guideway alternatives. Other initiatives include technical assistance and general planning support to the transportation authorities in the region, as well as smaller transit agencies, and oversight of federally required transit performance measures in support of the data-driven planning process. Complementing these efforts to support both local governments and transportation authorities, this planning activity includes preliminary project development activities for potential future rail corridors that would support follow-on corridor-specific feasibility and/or engineering studies. These preliminary project development activities include initial travel demand forecasting, early stakeholder coordination, and development of reasonable alternatives for future study. Examples of future rail corridors that would be included in these efforts are the McKinney Line and the Mansfield Line. Anticipated products include:

- Planning conducted on behalf of partner agencies based on identified needs;
- Support to transit agencies, including Travel Demand Model data, ridership projections, financial modeling, planning studies, and technical assistance;
- Assistance for transit system improvements resulting in seamless regional connectivity;
- Documentation of analysis methodologies, tracking, and monitoring of transit system performance documentation; and
- Preliminary project development planning for future rail corridors, including ridership forecasts and testing of planning assumptions.

Work Performed and Status: Planning conducted on behalf of the small transit providers in the region included continued coordination and planning to implement the Enhancing Mobility within the Southern Dallas Inland Port project. This project will enable an expansion of STAR Transit's service and supporting infrastructure in the International Inland Port of Dallas.

Staff continued refining passenger rail ridership modeling for rail corridors throughout the region based on updated demographics and modeling techniques, including TEXRail, McKinney and Mansfield passenger rail lines. For TEXRail, staff worked with Trinity Metro and conducted a series of ridership model forecast scenarios for the TEXRail southwestern extension, including short-range, long-range, and alternative demographics.

Staff assisted local governments through Geographic Information System mapping and project coordination for the South Dallas Employment Project, led by local nonprofits in conjunction with the City of Dallas and other local stakeholders. Additionally, transit planning and funding assistance continued to be provided for a High-Intensity Bus Pilot with Trinity Metro.

Work continued toward federally required performance-based planning and programming responsibilities. Activities included the monitoring and reporting of performance toward the regional Transit Asset Management (TAM) and Public Transportation Agency Safety Plan targets based on the latest available data from the National Transit Database. New regional targets for the TAM performance measures were developed by staff in coordination with transit providers throughout the region and adopted by the Regional Transportation Council.

In response to the transit studies that were completed in FY2021 (Collin County, Southern Dallas County, Tarrant County), planning assistance was offered and provided to municipalities in the region, such as Mansfield, Duncanville, and Cedar Hill, that have begun exploring or working on implementing the recommendations from the completed transit studies. This planning assistance included targeted analysis of data, short- and long-term scenarios, and recommendations for these municipalities. These efforts also involved assisting Trinity Metro and STAR Transit in providing relevant data for contract service cost estimates.

Transportation Planning Funds were utilized to support work activities. Work will continue in FY2023.

Denton County Transit Planning Study

Other Funding Sources

This element is ongoing throughout both FY2022 and FY2023, providing support in the development of transit studies. Activities include developing a comprehensive approach to planning and implementing transit services outside of the Denton County Transportation Authority service area. Other initiatives include investigation of local and regional connections, focus on strategic implementation, near-term implementation strategies, increased transportation options, innovative funding opportunities, mobility transportation hubs for existing service, private-sector involvement, and potential options for inclusion in future transportation plans. Efforts will include a comprehensive transit study for Denton County. Federal Transit Administration funds, as well as Transportation Development Credits, will support these activities. Consultant assistance will be utilized. Anticipated products include:

- Coordination meetings with transit partners, local governments, and stakeholders that monitor and ensure the continued progress of study completion;
- Procurement and executed agreements for consultant assistance;
- Mapping of potential alignment alternatives;
- Strategic implementation plans of recommended transit infrastructure and services; and
- Technical reports on transit implementation options in identified subregions that may include potential public transit implementation options, funding sources (public and private), and increased regional connections.

Work Performed and Status: Following the development of a project workplan by NCTCOG staff and deliberation by consultant selection committee meetings at the beginning of FY2022, the committee selected a consultant to assist in the implementation of the Denton County Transit Planning Study. The project team held two separate project advisory committee meetings to convene both local municipalities and a focus group that included elected officials of the study area. Concurrently, the project team completed an existing conditions report, focused on presenting the state of mobility and transit broadly within Denton County and the areas of the county not currently served by the Denton County Transportation Authority (DCTA), Dallas Area Rapid Transit (DART), or Trinity Metro.

The project team solicited feedback from the community in a public meeting in Denton County, launched a communitywide survey to glean insights on transit ridership across the county, and presented findings from each of the outreach efforts to members of the project advisory committee. Findings from the existing conditions report survey results, public meeting insights,

and direction-setting from the Project Advisory Committee are being incorporated into the next phase of the project scenario planning efforts.

Federal Transit Administration funds and Transportation Development Credits were used to support work activities. This project is ongoing and work will continue in FY2023.

East Dallas, Kaufman, and Rockwall Counties Transit Planning Study

Other Funding Sources

This subtask is ongoing throughout both FY2022 and FY2023, providing support in the development of transit studies. Activities include developing a comprehensive approach to planning and implementing transit services outside of transit agency service areas. Other initiatives include investigation of local and regional connections, focus on strategic implementation, near-term implementation strategies, increased transportation options, innovative funding opportunities, private-sector involvement, and potential options for inclusion in future transportation plans. Efforts will include, but are not limited to, a comprehensive transit study for Eastern Dallas, Kaufman, and Rockwall counties. Surface Transportation Block Grant Program funds and Transportation Development Credits will support these activities. Anticipated products include:

- Coordination meetings with transit partners, local governments, and stakeholders that monitor and ensure the continued progress of study completion;
- Procurement and executed agreements for consultant assistance;
- Mapping of potential alignment alternatives;
- Strategic implementation plans of recommended transit infrastructure and services; and
- Technical reports on transit implementation options in identified subregions that may include potential public transit implementation options, funding sources (public and private), and increased regional connections.

Work Performed and Status: Staff began drafting the project scope and work plan in FY2022 for the Eastern Dallas, Kaufman, and Rockwall Counties Transit Planning Study. Internal coordination meetings and broad stakeholder engagement across the community culminated in a draft work plan, including key deliverables for the project management plan. Public and stakeholder engagement was conducted through a series of meetings, including a project advisory committee meeting comprised of transit partners, local governments, and relevant community stakeholders, as well as a public meeting comprised primarily of residents and commuters in the study area.

Throughout the early project development phase, the project team continued iterating project elements, timelines, and the involvement of new project stakeholders. Staff also began the process of compiling relevant short- and long-range planning documents for context setting in an existing conditions report. A framework document was completed of the existing conditions and will serve as the building blocks for understanding existing demographics, transit service, and regional alignment conditions to plan transit service scenarios with existing and future context of the study area in mind. Finally, all feedback from the public meetings conducted was documented to be incorporated into the forthcoming final draft of the existing conditions report.

Surface Transportation Block Grant Program funds (CSJ 0918-00-320) and Transportation Development Credits were used to support work activities. This project is ongoing and work will continue in FY2023.

Intermodal Transportation Hub for Colleges and Universities Study

Other Funding Sources

During FY2022 and FY2023, in coordination with local governments, NCTCOG will assist colleges and universities in the North Central Texas region with planning potential intermodal transportation hub locations and associated traffic pattern impacts. Activities will include the impact to transit ridership, bicycle and pedestrian mobility, and other modes used for on-campus traffic circulation. Consultant assistance will be utilized. Work activities will be supported by Surface Transportation Block Grant Program funds and Transportation Development Credits. Anticipated products include:

- Coordination meetings with transit partners, local governments, colleges/universities, and stakeholders that monitor and ensure the continued progress of study completion;
- Public involvement activities;
- Procurement and executed agreements for consultant assistance;
- Strategic implementation plans of recommended transit infrastructure and services;
- Planning of intermodal transportation hubs, transit service, and other transportation infrastructure; and
- Technical reports on mobility options for colleges and universities, including options for public transit, bicycle and pedestrian mobility, and other modes used for on-campus traffic circulation, along with regional connections.

Work Performed and Status: Early in FY2022, a consultant team to lead this study was selected by the Consultant Selection Committee. This launched a budget, scope, and contract development process, culminating in the full contract execution in January 2022 and study launch in March 2022.

Early activities for the study included development of a project management plan and a stakeholder and public engagement plan to steer key tasks and deliverables through the study. Additionally, the project team held a project advisory committee directional workshop designed to present selected stakeholders with background for the study, provide an overview of mobility hub concepts, and solicit project visioning in the context of each respective campus. This directed the focus and approach of the following work on Tasks 2 and 3 of the study, focusing on public engagement and existing conditions, needs, and market assessments. This included the initial launch of a campus mobility survey and directed interviews and focus groups to discuss mobility hubs with key staff and stakeholders at campuses.

A project advisory committee update meeting was held in June 2022 and began work to complete Task 3 and start Task 4 of the study, including the Campus Mobility Trends Report and the Campus Mobility Hub Scenario Development and Evaluation Report. At the end of FY2022, work was being done to prepare for a re-launch of public engagement activities in tandem with the return of most students to campuses around the region for the Fall semester. A major project advisory committee update meeting and mobility hub charrette was also being planned.

Surface Transportation Block Grant Program funds (CSJ 0918-46-318) and Transportation Development Credits were utilized to support work activities. This project is ongoing and work will continue in FY2023.

3.05 Transit Management and Operations

This Work Program subtask provides funding primarily for the implementation of projects that focus on eliminating gaps in services, reducing duplication of services, enhancing coordination, and improving the efficiency and effectiveness of the region's existing services.

FTA Urban Funding Grant Administration

Other Funding Sources

This implementation activity is ongoing throughout FY2022 and FY2023, supporting all responsibilities NCTCOG assumes as the designated recipient for Federal Transit Administration (FTA) grant funds received for urbanized areas in the region. General responsibilities include program administration, project implementation, grant management, and program oversight for all subgrantees who receive funds through the Bus and Bus Facilities Program, Congestion Mitigation and Air Quality Improvement Program, Enhanced Mobility of Seniors and Individuals with Disabilities Program, Job Access/Reverse Commute Program, New Freedom Program, and the Urbanized Area Formula Program. Activities will also include the administration of emergency assistance funding made available by FTA to subgrantees in response to COVID-19, including the Coronavirus Aid, Relief, and Economic Security (CARES) Act and American Rescue Plan (ARP) Act of 2021, which are expected to be administered through FY2023. Federal Transit Administration funds, subgrantee local funds, and Transportation Development Credits will support these activities. Consultant assistance may be used. Anticipated products include:

- FY2022 and FY2023 funding allocations;
- CARES Act funding allocations;
- ARP Act funding allocations;
- Grant and agreement management;
- Application of oversight and compliance initiatives;
- Funding disbursement of reimbursable project expenses to subgrantees;
- Administration of a vehicle loaner program;
- Submittal of coordinated reports on behalf of subgrantees; and
- Procurements for services and equipment, including buses, on behalf of subgrantees.

Work Performed and Status: Staff managed 12 Urbanized Area Formula Program grants; six Enhanced Mobility of Seniors and Individuals with Disabilities Program grants; three Bus and Bus Facilities grants; two Job Access/Reverse Commute Program grants; three New Freedom Program grants; one Congestion Mitigation and Air Quality Improvement Program grant; and one Coronavirus Aid, Relief, and Economic Security Act (CARES) grant for a combined total of approximately \$80 million in federal funds. Staff also closed out five Urbanized Area Formula Program grants, one Job Access/Reverse Commute Program grant, one Congestion Mitigation and Air Quality Improvement Program grant, and one New Freedom Program grant upon completion of the projects designated therein.

Staff submitted 64 quarterly progress reports, four Charter Service reports, six National Transit Database (NTD) Annual Reports, 48 NTD Ridership and Safety and Security reports, and 55 Transit COVID-19 Response Program reports.

Administrative functions associated with all projects continued and monthly requests for reimbursements were processed, totaling \$1,760,888 in CARES Act funds, \$94,885 in New Freedom funds, \$1,988 in Job Access/Reverse Commute funds, \$1,421,991 in Urbanized Area Formula funds, and \$815,369 in Enhanced Mobility for Seniors and Individuals with Disabilities funds.

Procurement guidance and review was provided for five subrecipients. Staff executed contracts for a Cooperative Vehicle Procurement to purchase vehicles for five subrecipients.

Oversight and compliance were performed for five subrecipients in the areas of Drug and Alcohol Program, Section 5310, Section 5307, Satisfactory Continuing Control, and Transit Asset Management. One vehicle was transferred as part of the Vehicle Loaner Program.

Federal Transit Administration funds, local funds, and Transportation Development Credits were used to support work activities. This project is ongoing and work will continue in FY2023.

Sustainability and Innovative Solutions for Transit

Other Funding Sources

This implementation activity is ongoing throughout both FY2022 and FY2023, supporting coordination and implementation of sustainable transit initiatives and innovative solutions. The program supports Chapter 461 of the Texas Transportation Code that focuses on maximizing the benefits of the State's investment in public transit through the coordination of services and other innovative transit-related projects. Activities include developing projects to encourage access to public transportation, implementing a regional equitable transit fares program, and gathering data to improve transportation planning efforts for older adults, individuals with disabilities, individuals with low incomes, and additional environmental justice populations. University assistance will be utilized. Regional Toll Revenue funds and Regional Transportation Council Local funds will support these activities. Anticipated products include:

- Implementation of an equitable transit fare program to be coordinated with transit authorities, NCTCOG, and private partners;
- Coordination with transit agencies, community colleges, colleges, and universities to provide students with transit passes;
- University Partnership Program final report related to use of an app-based technique for assessing the transportation gaps of environmental justice populations;
- Short- and long-range solutions that move the region toward more comprehensive, coordinated, accessible, efficient, and effective public transit services; and
- Policies, programs, and projects that support and encourage sustainable transportation options around the region while elevating customer service and air quality.

Work Performed and Status: Seven projects continued in FY2022 to support transit sustainability initiatives: Equitable Fares Transit Program; Dallas Area Rapid Transit (DART) Western Carrollton GoLink; McKinney Avenue Transit Authority (MATA) Service Frequency Improvements; the My Amble 2.0 project under the University Partnership Program; Trinity Metro

Alliance Link; Trinity Metro Tarrant County College (TCC) Transit Passes; and Trinity Metro Trinity Railway Express (TRE) Shuttle.

Staff met periodically with partner agencies to discuss agency efforts on equitable transit fare initiatives. Staff also coordinated internally for an upcoming project that includes providing transit passes to increase access to transit and job opportunities.

NCTCOG continued to partner with the participating university for the MyAmble 2.0 University Partnership Program project, piloting smart-phone app-based data collection to characterize latent transportation demand and impacts on health and quality of life within environmental justice populations. The project team completed work towards project objectives, including partnership with NCTCOG staff on a second focus group, refinement of the MyAmble app, and submission of a final report and implementation plan. The project ended in FY2022.

NCTCOG continued to partner with DART to provide a pilot for first/last mile service in the Western Carrollton GoLink Zone. Staff executed an amendment to the project agreement in the beginning of FY2022 to expand the service area of the project. Also, through a partnership with MATA, NCTCOG continued to provide funding for its Improved Service Frequency Plan and increase the number of operating railcars. NCTCOG continued to coordinate with MATA to address challenges related to procurement of rail liability insurance. Both projects concluded in FY2022, and staff completed closeout activities.

NCTCOG partnered with Trinity Metro for the Alliance Link project, providing first/last mile transit service in the Alliance area to connect employed persons to major employers and the Trinity Railway Express Shuttle for the Continued Operations project, providing critical first/last mile transit connections between the TRE Centreport Station and Dallas Fort Worth International Airport.

Through a partnership with Trinity Metro, NCTCOG provided funding to support transit passes for eligible Tarrant County College students. Also, staff coordinated with the City of Arlington to expand access to public transportation by supporting an expansion of service and connect community college students with transit passes.

In addition to the seven continuing projects noted above, as part of sustaining and enhancing access to public transportation services in the Southern Dallas Inland Port area, staff also continued to meet internally and with partners to discuss project needs, coordinate with the local transportation management association (TMA), and identify locations to support future transit electric vehicles and charging infrastructure for on-demand services. Information related to pedestrian and vehicle infrastructure improvements was collected for Federal Transit Administration staff related to potential National Environmental Policy Act requirements. Staff will work to execute partner agreements and implement projects beginning in FY2023.

Regional Toll Revenue funds (CSJs 0918-00-193, 0918-00-325, and 0918-00-349) and Regional Transportation Council Local funds were used to support work activities. This project is ongoing and work will continue in FY2023.

Mobility Management

Other Funding Sources

These planning and coordination activities are ongoing for FY2022 and FY2023, supporting mobility management and Mobility as a Service (MaaS) initiatives to improve the coordination of transportation services in the Metropolitan Planning Area. Activities include the implementation of the Mobility on Demand (MOD) workgroup, monitoring MaaS platform integration, providing support to transit providers for improved operational planning through use of technologies, and creating new innovative partnerships with local governments and private and nonprofit stakeholders who hold key connections or interest in increasing mobility options in the region. Federal Transit Administration funds and Transportation Development Credits will support these activities. Consultant assistance may be used. Anticipated products include:

- Strengthened mobility management activities with transit partners for the management and delivery of coordinated transportation services to transit-dependent populations;
- MOD workgroup meetings to document best practices and promote partnerships in the region;
- Resources to assist local governments, transit providers, healthcare providers, community service agencies, and the public on available transit options; and
- Execution of subrecipient agreements and documentation of subrecipient compliance to grant requirements through monitoring and on-site reviews.

Work Performed and Status: Staff implemented the recently updated Strategic Partnerships Funding Program, formerly the Call for Projects, utilizing a more deliberate and coordinated approach to address gaps in service. Staff met and coordinated with nine local stakeholders to provide resources related to project development. Two projects were evaluated and recommended for funding and implementation. These projects address gaps in service for seniors and individuals with disabilities in both the cities of Cedar Hill and Duncanville and incorporate recommendations from the Southern Dallas County Transit Study. Staff will work to execute subrecipient agreements and provide subrecipient oversight related to those projects in FY2023.

The Mobility on Demand (MOD) working group provides a forum for transit agencies, local governments, and other interested parties to discuss, coordinate, and promote demonstration of MOD and Mobility as a Service (MaaS) concepts and solutions in the region. Staff facilitated a meeting with 22 partner agencies to discuss recent implementation of MaaS service plans by one of the regional transportation authorities to expand transit options. The meeting supported mobility activities with transit partners who shared best practices and lessons learned. Staff monitored innovative MaaS platform integration industrywide to support understanding and development of these activities locally.

A consultant was hired to assist NCTCOG's management with a strategic assessment of subrecipients' finance department structure and systems and capabilities related to the establishment and management of allocation methodologies for pass-through federal funds. Five subrecipients had preliminary assessments that included walk-throughs and interviews with employees across the finance teams related to the handling of pass-through federal funds.

Federal Transit Administration funds and Transportation Development Credits were used to support these activities. This project is ongoing and work will continue in FY2023.

My Ride North Texas Program

Other Funding Sources

These planning and coordination activities are ongoing for FY2022 and FY2023, supporting implementation of the My Ride North Texas Program to identify gaps in service and improve the coordination of transportation services in the Metropolitan Planning Area. Activities include coordinating the Regional Mobility Managers advisory group, extending mobility management services, and providing assistance to local governments, transit providers, healthcare providers, community service agencies, and the public to increase access to transportation and improve regional mobility. Enhancements of the program may include pilot of regional mobility management trainings; development of a website; and greater outreach to older adults, people with disabilities, and individuals with lower incomes. Federal Transit Administration funds and Regional Transportation Council Local funds will support these activities. Subrecipient assistance may be used. Anticipated products include:

- Enhancements to My Ride North Texas, with transit partners, to enable low-income seniors and individuals with disabilities access to healthcare, wellness trips, and jobs;
- Support of a regional call center for individuals to access transportation counseling services and referrals to available transit providers;
- Regional Mobility Managers meetings to document best practices and promote partnerships in the region; and
- Resources to assist local governments, transit providers, healthcare providers, community service agencies, and the public on available transit options.

Work Performed and Status: The North Central Texas Council of Governments (NCTCOG) Regional Mobility Management Program conducted activities toward the goal of increasing transportation access for low-income populations, seniors, and individuals with disabilities. Staff supported mobility management efforts from partner agencies across the NCTCOG region and hosted four quarterly regional mobility manager meetings with transit partners as a platform to facilitate discussion and share best practices on regional mobility topics such as changes from new infrastructure bill, federal and local funding opportunities, environmental justice in transit, regional coordination planning, regional vanpools, and continued impacts of COVID-19.

Staff continued coordination on the operations of the My Ride North Texas 2.0 toll free 1-800 number which connects callers to personalized transportation navigation services as part of the Federal Transit Administration (FTA) Access and Mobility Grant. Staff collected monthly call data and outreach event data from the subrecipient and quarterly qualitative reports to gain insight into the implications of the call data, including reasons individuals did not take the trips that were advised, and common issues encountered by callers in their effort to ride transit. Travel navigators advised over 1,000 calls and provided referrals to individuals based on factors such as age, budget, or disability status and advised callers of scheduling, cost, application processes, and service changes. The subrecipient agreement ended in FY2022; staff coordinated closeout activities and began to explore opportunities to integrate calls with the regional traveler information system.

Staff reviewed major network changes from the transit authorities and updated the Get-A-Ride Guide, which is a guidebook to assist local governments, transit providers, healthcare providers, community service agencies, and the public by increasing awareness of available transit options. This guide was published online and made available in Spanish and English.

Federal Transit Administration funds and Regional Transportation Council Local funds were used to support these activities. This project is ongoing and work will continue in FY2023.

Strategic Partnership Program

Other Funding Sources

This implementation activity is ongoing for FY2022 and FY2023, supporting coordination with strategic partners to develop transit projects that meet the transit needs of seniors, individuals with disabilities, and low-income populations for job access. Transit projects will be developed based on several factors, including, but not limited to, previously identified strategies in Access North Texas, environmental justice impact, accessibility, strategic value in the region, innovation, and sustainability. These efforts will generate projects that are responsive to needs of transit-dependent populations, address gaps in service, and contribute to the coordination of services among transit providers. Federal Transit Administration funds and Transportation Development Credits will support these activities. Anticipated products include:

- Implementation of Strategic Partnerships process for review of requests;
- Coordination with local governments, transit providers, community service organizations, and other stakeholders to evaluate requests;
- A mobility toolbox to provide local governments with resources on transit project development;
- Programs and projects through Strategic Partnerships to improve transit access for seniors, individuals with disabilities, and low-income populations;
- Implementation of projects that address gaps in service and integrate recommendations from recent transit studies, including Cedar Hill, other local governments, and partner agencies; and
- Execution of subrecipient agreements and documentation of subrecipient compliance with grant requirements through monitoring and on-site reviews.

Work Performed and Status: No projects were implemented in FY2022. Staff activities in preparation for FY2023 projects are reflected in the work performance for Mobility Management above.

This project is ongoing and will continue in FY2023.

Enhancing Mobility within the Southern Dallas Inland Port

Other Funding Sources

In FY2022, NCTCOG was awarded grant funding from the United States Department of Transportation (USDOT) under the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) discretionary grant program to implement mobility enhancements to and within the Southern Dallas Inland Port. The project seeks to enhance connectivity in Southern Dallas County by optimizing transit service, improving pedestrian infrastructure, and updating traffic signals. NCTCOG staff will oversee project management of the RAISE Enhancing Mobility within the Southern Dallas Inland Port project once initiated. Contractor and subrecipient assistance will be utilized. Federal Transit Administration funds, Surface Transportation Block Grant Program

funds, Regional Toll Revenue funds, and local funds will support these activities. Anticipated products include:

- Implementation of enhancements to recently implemented on-demand services to increase transit connectivity within the Southern Dallas Inland Port area;
- Procurement of electric vehicles and related charging equipment on behalf of subrecipients to deliver on-demand services;
- Installation of charging infrastructure for electric vehicles at strategic locations to optimize on-demand services;
- Coordination with transit agencies, employers, and local stakeholders to provide access to transit passes and promote public transportation options in the area;
- Construction and implementation of infrastructure to improve safety of pedestrian and vehicle movements, including transit; and
- Execution of subrecipient agreements and documentation of subrecipient compliance to grant requirements through monitoring and on-site reviews.

Work Performed and Status: A RAISE grant award was received in FY2022. Staff activities in preparation for implementation of mobility enhancements to and within the Southern Dallas Inland Port are reflected in the work performance for Sustainability and Innovative Solutions for Transit above in Subtask 3.05. Project implementation will begin in FY2023.

TASK 3.0 – FUNDING SUMMARY

Funding Source	Amount Programmed (2-year)	Authorized (2-year) ¹	Expended (FY2022)	Amount Expended (2-year)	Balance of Programmed (2-year)	% Expended of Programmed (2-year)	Balance of Authorized (2-year)	% Expended of Authorized (2-year)
3.01 - Transportation Project Programming								
TPF	\$2,899,200	\$1,399,900	\$1,233,666	\$1,233,666	\$1,665,534	42.6%	\$166,234	88.1%
STBG	\$918,200	\$429,074	\$213,075	\$213,075	\$705,125	23.2%	\$215,999	49.7%
RTR	\$1,183,300	\$1,183,223	\$353,841	\$353,841	\$829,459	29.9%	\$829,382	29.9%
Subtotal	\$5,000,700	\$3,012,198	\$1,800,582	\$1,800,582	\$3,200,118	36.0%	\$1,211,615	59.8%
3.02 - Regional Air Quality Planning								
TPF	\$1,078,700	\$592,700	\$679,710	\$679,710	\$398,990	63.0%	(\$87,010)	114.7%
TCEQ	\$270,000	\$294,549	\$20,221	\$20,221	\$249,779	7.5%	\$274,329	6.9%
NCTCOG LOCAL ²	\$0	\$2,702	\$2,702	\$2,702	(\$2,702)	0.0%	\$0	100.0%
Subtotal	\$1,348,700	\$889,951	\$702,633	\$702,633	\$646,067	52.1%	\$187,318	79.0%
3.03 - Air Quality Management and Operations								
CMAQ	\$1,530,600	\$1,390,419	\$326,589	\$326,589	\$1,204,011	21.3%	\$1,063,830	23.5%
DOE	\$137,500	\$217,386	\$132,793	\$132,793	\$4,707	96.6%	\$84,593	61.1%
EPA	\$7,402,250	\$8,013,479	\$2,012,179	\$2,012,179	\$5,390,071	27.2%	\$6,001,300	25.1%
FHWA	\$12,300	\$11,169	\$11,169	\$11,169	\$1,131	90.8%	\$0	100.0%
STBG	\$6,562,000	\$4,820,674	\$2,075,876	\$2,075,876	\$4,486,124	31.6%	\$2,744,798	43.1%
LOCAL	\$16,280,279	\$15,720,743	\$4,423,570	\$4,423,570	\$11,856,709	27.2%	\$11,297,173	28.1%
TCEQ	\$275,000	\$276,433	\$89,600	\$89,600	\$185,400	32.6%	\$186,834	32.4%
Subtotal	\$32,199,929	\$30,450,305	\$9,071,777	\$9,071,777	\$23,128,152	28.2%	\$21,378,528	29.8%
3.04 - Public Transportation Planning								
TPF	\$1,705,900	\$808,600	\$788,125	\$788,125	\$917,775	46.2%	\$20,475	97.5%
FTA	\$976,600	\$920,302	\$326,603	\$326,603	\$649,997	33.4%	\$593,699	35.5%
STBG	\$816,800	\$729,417	\$354,914	\$354,914	\$461,886	43.5%	\$374,503	48.7%
RTR ³	\$0	(\$1,431)	(\$1,431)	(\$1,431)	\$1,431	0.0%	\$0	100.0%
Subtotal	\$3,499,300	\$2,456,888	\$1,468,211	\$1,468,211	\$2,031,089	42.0%	\$988,677	59.8%
3.05 - Transit Management and Operations								
FTA	\$25,256,050	\$31,139,310	\$6,137,983	\$6,137,983	\$19,118,067	24.3%	\$25,001,326	19.7%
STBG	\$1,000,000	\$0	\$0	\$0	\$1,000,000	0.0%	\$0	0.0%
LOCAL	\$1,459,400	\$2,705,008	\$548,489	\$548,489	\$910,911	37.6%	\$2,156,520	20.3%
RTR	\$2,136,000	\$2,377,437	\$929,514	\$929,514	\$1,206,486	43.5%	\$1,447,923	39.1%
Subtotal	\$29,851,450	\$36,221,755	\$7,615,986	\$7,615,986	\$22,235,464	25.5%	\$28,605,769	21.0%
Total	\$71,900,079	\$73,031,096	\$20,659,189	\$20,659,189	\$51,240,890	28.7%	\$52,371,907	28.3%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Chapter VI. Funding Summaries – Transportation Planning Funds (Two-Year Total) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

² NCTCOG Local funding was used to cover small cost overruns.

³ Negative expenditures are due to adjustments made to FY2021 expenditures.

TASK 3.0 – TPF FUNDING SUMMARY FY2022

	Amount Programmed	Amount Authorized ¹	Amount Expended	% Expended Programmed	Balance of Authorized	% Expended Authorized
3.01 - Transportation Project Programming						
TPF	\$1,399,900.00	\$1,399,900.00	\$1,233,666.13	88.1%	\$166,233.87	88.1%
3.02 - Regional Air Quality Planning						
TPF	\$592,700.00	\$592,700.00	\$679,710.32	114.7%	(\$87,010.32)	114.7%
3.04 - Public Transportation Planning and Management Studies						
TPF	\$808,600.00	\$808,600.00	\$788,125.23	97.5%	\$20,474.77	97.5%
Total	\$2,801,200.00	\$2,801,200.00	\$2,701,501.68	96.4%	\$99,698.32	96.4%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Chapter VI. Funding Summaries – Transportation Planning Funds (Two-Year Total) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

This page is intentionally left blank.

IV. Task 4 – Metropolitan Transportation Plan

This task provides funding for the development and refinement of the Metropolitan Transportation Plan (MTP) in conjunction with metropolitan planning requirements of the Fixing America's Surface Transportation (FAST) Act. It also supports more detailed feasibility studies on projects included in the MTP. Activities to coordinate and ensure that performance-based planning is fully integrated into the North Central Texas Council of Governments' planning process are also a component of this task. Efforts to coordinate the transportation and environmental planning processes, mitigate the environmental impacts of projects, and emphasize the incorporation of environmental justice analyses into planning documents, policies, and activities are also included.

4.01 Metropolitan Transportation Planning

This subtask encompasses the development of the metropolitan area's long-range transportation plan and related documentation of the region's transportation system. As corridor studies contained in the Metropolitan Transportation Plan advance to final recommendations, periodic amendments and updates to this plan may be required. Additionally, the arterials contained in the plan fall into several categories detailed below, which are monitored and amended, as necessary, to meet transportation conformity and funding requirements.

Metropolitan Transportation Plan Development and Monitoring

Transportation Planning Funds

This subtask is ongoing throughout FY2022 and FY2023. The Metropolitan Transportation Plan (MTP) provides a blueprint for a multimodal transportation system and responds to broad transportation-oriented goals for the region. These goals include enhancing mobility, improving access, and reducing congestion; quality-of-life goals such as encouraging balanced land use, promoting orderly economic development, and improving air quality; and financial goals such as identifying and pursuing long-term stable sources of funding. The MTP must also meet financial constraint goals where project and program costs must not exceed anticipated revenue.

At any given time, the MTP is being monitored, developed, or modified. Staff will work in cooperation with the Texas Department of Transportation (TxDOT), Dallas Area Rapid Transit (DART), Trinity Metro, the Denton County Transportation Authority (DCTA), the North Texas Tollway Authority (NTTA), the Collin County Toll Road Authority (CCTRA), local governments, and other public agencies, as needed, to monitor programs and projects recommended in the current MTP, Mobility 2045, to ensure they reflect the latest planning assumptions, allowing those programs and projects to proceed through the planning and environmental stages of project development.

It is anticipated that a plan update of Mobility 2045 will receive local approval during FY2022 and will include any corridor adjustments needed to meet federal requirements for air quality determination. Staff will continue to coordinate with transportation partners and the public during the development of the long-range plan. This update to Mobility 2045 will factor in planning efforts for the horizon year, demographics, financial assumptions, and other planning requirements. Planning efforts will also include any recommendations from Subtask 5.01, Regional Transportation Studies, Regional Automated Transportation System Initiative. The update to

Mobility 2045 will be developed in accordance with the rules outlining the contents of the MTP under the policy direction of the Regional Transportation Council, technical guidance of NCTCOG's technical committees, and public involvement efforts. Changes to the MTP will be made in coordination with local transportation providers and partners. Staff will also implement all RTC policies included in the MTP update, including monitoring and briefing RTC on emerging transportation technology proposals.

Moving Ahead for Progress in the 21st Century (MAP-21) introduced a new requirement to incorporate a performance-based approach in the transportation planning process. In response to this requirement, staff coordinated with TxDOT to establish regional transportation system performance measures and targets. Staff will continue to monitor and assess the performance of the transportation system and its effect towards meeting federally required performance targets according to guidance from the Fixing America's Surface Transportation Act. Additional locally developed performance measures and metrics will also be evaluated. Anticipated products of this subtask include:

- Presentations utilizing MTP data and information;
- Maps;
- Collection and transmittal of travel model networks, GIS shapefiles, and performance reports as model outputs;
- Periodic reports to the Regional Transportation Council (RTC) and the Surface Transportation Technical Committee (STTC) documenting status of MTP implementation and applicable emerging transportation technology proposals per RTC policy;
- Coordination meetings to monitor and ensure the continued progress of project recommendations; and
- Mobility 2045 Update document

Work Performed and Status: During FY2022, NCTCOG staff completed the development of the Metropolitan Transportation Plan, Mobility 2045 Update, and the RTC adopted it as the region's long-range transportation plan in June 2022. This new plan was initiated in accordance with federal rules requiring long-range MTPs to have a time horizon of at least 20 years and be updated at least every four years. New demographics, air quality conformity requirements, and an updated nondiscrimination analysis formed the basis for the updated MTP to replace Mobility 2045. Staff developed new financial forecasts to include new funding sources from the Infrastructure Investment and Jobs Act (IIJA) and others to revise its projections for a financially constrained plan. As part of the plan update, staff prepared updated maps to display the project recommendations for the new plan.

Staff continued to implement Mobility 2045 and develop administrative amendments as necessary while developing the plan update. Continual coordination between staff and partner agencies/local governments supported the implementation of programs and projects under Mobility 2045 and the updates to programs and projects for the Mobility 2045 Update.

Several corridors requiring an update to conform with the latest recommendations from the National Environmental Policy Act and related implementation studies were revised in the plan update. Staff collaborated with partner agencies and local governments, including the Texas Department of Transportation, the Federal Highway Administration, DART, FWTA, DCTA, and NTTA to identify these project updates, along with new corridor concepts and re-examine agency priorities. Additionally, the voluntary MTP Policy Bundle was updated and incorporated in the plan update. This voluntary Policy Bundle will continue to be refined, updated, and implemented in FY2023.

The Regional Transportation Council, Surface Transportation Technical Committee, and the public were updated frequently during plan development in accordance with the Public Participation Plan. Presentations were given to regional partners and community organizations regarding the policies, programs and projects contained in the Mobility 2045 Update. The RTC was also updated on proposals from technology providers through the Certification of Emerging Reliable Transportation Technology Program as they came up during the process. Presentations and data entry tools were given to transportation partners to assist them in review of the mobility plan data. Geographic Information System (GIS) shapefiles of the plan recommendations, travel model roadway and transit networks, performance reports from travel model forecasts, and demographics were provided to over a dozen entities during FY2022. To better address the MAP-21 and Fixing America's Surface Transportation Act requirements, a suite of plan-specific performance measures developed in previous plan cycles was monitored and included in the Mobility 2045 Update. Voluntary measures were developed to assess regional attainment of plan goals.

As a part of continual plan maintenance, several minor administrative revisions were made to the Mobility 2045 recommendation listings. These administrative revisions were only for non-regionally significant items. The revisions were presented to the public for their comments and the revised recommendation listings were posted on the Mobility 2045 and Mobility 2045 Update webpages and distributed to transportation partners. Staff collaborated with transportation partners through regularly scheduled quarterly meetings and numerous ad hoc meetings to discuss the planning process and monitor projects to ensure they proceed to implementation.

Transportation Planning Funds were used to support work activities and work will continue in FY2023.

Regionally Significant Arterials (RSA)

Transportation Planning Funds

North Central Texas Council of Governments (NCTCOG) staff will work in cooperation with the Texas Department of Transportation, transportation agencies, and local governments to monitor the Regionally Significant Arterial system. The RSA database and listing will be amended to be consistent with the revised National Highway System and local planning efforts. Activities will be ongoing throughout FY2022 and FY2023 to monitor and amend the RSA system as needed. Anticipated products include:

- RSA database in both ArcGIS and TransCAD applications;
- Coordination with transportation partners and local governments in the planning and staging of transportation improvements; and
- A listing of existing and planned RSAs to be included in the Metropolitan Transportation Plan and transportation conformity analysis.

Work Performed and Status: The Regionally Significant Arterials (RSA) data has been developed and maintained in a combination of SQL Server and ArcGIS Enterprise geodatabase environments. Detailed data used in travel demand forecasting is maintained in a TransCAD environment. The RSAs were monitored for consistency with active projects in the Transportation Improvement Program, and minor updates to the database were made based on the monitoring efforts. The administrative revisions and revised RSA listings were posted on the NCTCOG website where the public was able to review and provide comments. The revised listing was also

provided to transportation partners. As a result of the recent National Highway System update, all RSA designation changes were incorporated in the adoption of the Mobility 2045 Update as the region's Metropolitan Transportation Plan. Quarterly meetings and several ad hoc meetings were held with transportation partners to monitor the planning process of RSA recommendations, and appropriate changes were included in the Mobility 2045 Update.

Transportation Planning Funds were used to support work activities and work will continue in FY2023.

Regional Thoroughfare Plan Inventory (RTPI)

Transportation Planning Funds

In conjunction with the continual development of the Metropolitan Transportation Plan, North Central Texas Council of Governments staff will collect, translate, and inventory local government thoroughfare plans and provide planning support from a regional perspective. Once the thoroughfare plans are combined and compared, some instances will require resolution of boundary disputes to ensure a high degree of consistency and continuity between local government planning efforts and regional planning efforts. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Documented inventory of thoroughfare plans that were collected and included in transportation networks; and
- A Geographic Information System (GIS)-based regional arterial system map.

Work Performed and Status: NCTCOG monitored local government thoroughfare planning efforts for the availability of new or updated plans. When new plans were found, they were added to the inventory ensuring that the library remained current. Project additions and improvements to the region's thoroughfare systems were included in Geographic Information Systems (GIS)-based regional arterial maps and GIS-based transportation networks.

Transportation Planning Funds were used to support work activities and work will continue in FY2023.

Federal Functional Classification System (FFCS)

Transportation Planning Funds

Staff will continue to work in cooperation with federal partners and the local Texas Department of Transportation districts to maintain the FFCS for the Dallas-Fort Worth Metropolitan Area. This element includes monitoring roadway system function to determine the necessary mid-cycle amendments, as needed, to the FFCS. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Participation in an anticipated nationwide universal update of the system initiated by the release of Census 2020 results;
- Electronic transportation network of FFCS roadways;
- Coordination with local governments in the planning and staging of transportation improvements;

- Amendments, as needed, to the roadway system to correct, remove, or add roadways; and
- Maps and presentations demonstrating location, function, and justification for amendments.

Work Performed and Status: Maintenance of an electronic network of the region's Federal Functional Classification System (FFCS) roadways continued. Staff worked with local governments directly or through National Highway System (NHS) review, the Transportation Improvement Program, and the release of Census 2020 results to determine potential additions or changes to the current system. Amendments to the FFCS were initiated to ensure that programmed projects resulting in new or improved roadways are accurately represented in the system. Reference materials created for this process indicate location, function, and justification for amendment.

Transportation Planning Funds were used to support work activities and work will continue in FY2023.

4.02 Coordination of Transportation and Environmental Planning Processes

Linking transportation planning and environmental planning represents a collaborative and integrated approach to transportation decision making. The following elements link development of data, processes and frameworks, and mitigation outcomes to enhance and support metropolitan transportation planning and project development activities.

Planning and Environment Linkages (PEL)

Transportation Planning Funds

This element will support a framework to consider environmental, community, and economic goals early in the transportation planning stage, then carry the goals through the corridor and project development phases into construction and mitigation efforts. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Metropolitan Transportation Plan environmental scoring and mitigation documentation;
- Outreach and technical assistance supporting stakeholder participation in transportation planning processes;
- Partnerships and agreements to expand or improve regional data needs and other partner agreements;
- Documentation and presentation material for coordination meetings, workshops, and training sessions; and
- Technical papers, as needed.

Work Performed and Status: Planning and Environment Linkages (PEL) efforts continued in FY2022 supporting the Texas Department of Transportation (TxDOT) and other transportation project partners. These efforts were performed for sections of the planned Regional Outer Loop in Denton, Rockwall, and Kaufman counties, as well as with the Interstate Highway (IH) 20/IH 635/US 175 Interchange Feasibility Study in Dallas County, the US 180 East Lancaster Avenue corridor in Tarrant County, the State Highway (SH) 34 Feasibility Study in Kaufman County, and the US 287 Feasibility Study in Ellis County. NCTCOG supported TxDOT in the preparation and submittal of project applications for multiple discretionary grant programs resulting from the Bipartisan Infrastructure Law (BIL), including Rebuilding American Infrastructure with

Sustainability and Equity (RAISE), Multimodal Projects Discretionary Grant (MPDG), Reconnecting Communities Pilot (RCP), and the Bridge Investment programs.

Staff reviewed transportation projects for the Mobility 2045 Update and identified potential for environmental impacts. This information was communicated to resource and regulatory agencies. Relevant information was also shared with federally recognized tribal nations, as well as data on NCTCOG-led studies. Staff training was conducted on the government-to-government relationship and respectful communication etiquette with tribal nations. Environmental data was gathered to facilitate the annual review of 10-Year Plan/Unified Transportation Program (UTP) transportation projects for their potential/extent of environmental impacts.

Transportation Planning Funds were used to support work activities. This project is ongoing and work will continue in FY2023.

Army Corps of Engineers Section 404 and 408 Permitting

Other Funding Sources

In FY2022 and FY2023, staff will continue activities associated with the Water Resources Development Act Section 214 Memorandum of Agreement between the United States Army Corps of Engineers (USACE) and NCTCOG. This agreement was formed to expedite the evaluation of Section 404 permits for regional priority transportation projects. Staff will monitor the progress of permitting for specific projects identified by transportation partners. The performance and the cost-effectiveness of the USACE under this agreement will be evaluated by using specific performance measures identified by staff. Regional Toll Revenue funds and local funds will support Section 404 activities.

Additionally, staff will continue to monitor and aid in Section 408 permitting activities for major transportation projects. This effort could include attendance at meetings and coordination with resource agencies. Regional Toll Revenue funds will be utilized, and other funds may be sought to support this initiative. This effort will include the following products:

- USACE-reported performance metrics;
- Presentations, meetings, and annual reports; and
- Clean Water Act Section 404 and 408 finalized permit decisions.

Work Performed and Status: Just one action (SH 205 John King Boulevard in Rockwall County: SWF-2020-314) was conducted in FY2022 due to the retirement of the USACE staff member responsible for permitting through this program, as well as challenges in timely securing a replacement for the position. With expectation that USACE's hiring/retention challenges will be overcome, continued satisfaction by all parties over the program's long-standing accomplishments, and sufficient funding still available, an amendment to extend expiration of the Texas Department of Transportation Memorandum of Agreement to September 30, 2023, was processed and executed by all parties.

Regional Toll Revenue funds (CSJ 0918-00-334) were used to support work activities. This project is ongoing and work will continue in FY2023.

Environmental Stewardship Program

Other Funding Sources

The Environmental Stewardship Program will fund engineering studies for constructed wetlands. Consultants may be procured for these efforts. Staff will educate the private sector about mitigation needs in the region. Regional Toll Revenue funding will enable the procurement of trees to be planted to help mitigate the urban heat island effect. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Agreements with external partners;
- Updates of data relevant to stewardship or mitigation; and
- Documentation and presentation material for coordination meetings, workshops, and training sessions.

Work Performed and Status: Trees were procured and planted to contribute toward mitigation of the urban heat island effect, with most planted in low-income communities, as well as within public rights-of-way, resulting from an executed agreement with the City of Fort Worth. Information was presented to stakeholders during multiple meeting occasions regarding the equity of preserving and expanding urban tree canopies in various communities.

Wetland and stream mitigation credits were reviewed to identify possible challenges to meeting transportation system demands. Online tools relevant to mitigation identification, analysis, and benefit quantification were updated and maintained.

Regional Toll Revenue funds (CSJ 0902-00-193) were used to support activities. Work will continue in FY2023.

Denton Greenbelt Project

Other Funding Sources

The Denton Greenbelt project will address sustainability for a planned roadway expansion through the Denton Greenbelt. Staff will prepare a sustainability assessment and will educate stakeholders about indirect and cumulative effects the roadway expansion may have. This element is ongoing throughout FY2022 and will utilize Regional Transportation Council Local funds. Anticipated products include:

- Sustainability assessment; and
- Documentation and presentation material for coordination meetings, workshops, or outreach efforts.

Work Performed and Status: Staff completed a sustainability assessment and developed recommendations to incorporate sustainability considerations for a planned roadway expansion in Denton County. Data attributes and potential stormwater mitigation strategies were presented to stakeholders and the public related to economic and environmental effects of both the Regional Outer Loop segment and anticipated direct/indirect land development. Information was included for review/consideration as part of Denton County's Request for Proposals (RFP), securing a consultant team to perform and obtain clearance for an Environmental Impact Statement (EIS). Staff also assisted Denton County with meetings, maps, and correspondence associated with

inclusion of partial funding for the Outer Loop in TRIP 2022, Denton County's newest transportation bond program.

Regional Transportation Council Local funds supported work activities. This project is complete and work in FY2023 supporting Denton County/Texas Department of Transportation Outer Loop EIS preparation and approval will be performed under UPWP Subtask 5.01, Regional Transportation Studies, Strategic Corridor Initiatives.

Blue-Green-Grey Silo-Busting Initiatives

Other Funding Sources

The focus of the “Blue-Green-Grey” initiative is to help address traditional transportation planning that can result in “silos” which cause projects to be disjointed due to lack of communication or coordination amongst planners or project champions in various disciplines. Blue-Green-Grey is an initiative to identify “silo-busting” projects that focus on three elements – blue (water), green (environment), and grey (transportation infrastructure). Selected projects will continue in FY2022 and FY2023. Additionally, staff will advance additional funding rounds throughout FY2022 and 2023 to help develop new ideas that engage multiple disciplines and implement projects that could be further developed and replicated regionwide. Through the 2017 solicitation, three projects were selected for funding: City of Southlake Burney Lane Biofiltration System, the City of Farmers Branch Green Bus Stop Design Guidelines, and the Dallas Area Rapid Transit Community Gardens Hatcher Station Pilot. Through the 2018 solicitation, three projects were selected for funding: Hightower Drive Biofiltration Rain Gardens, Retrofitting Neighborhood Commercial Green Bicycle Park, and Micro-Detention Storage System. Five of these six projects have been completed. Through the 2021 solicitation, three projects were selected for funding: Laboratory Testing of Engineered Media for Biofiltration Swales, Blue-Green Neighborhood Beautification Design Guidelines and Pilot Project-The Bottom District, and the City of Allen Inlet Floatables Filter. This initiative is supported through Regional Transportation Council Local funds. Anticipated products include:

- New funding initiatives and project awards for round three;
- Installation of a biofiltration system at the City of Watauga’s Hightower Drive storm drain inlets;
- Concept-level floatables filter inlet plan and maintenance/materials specifications;
- Green infrastructure and beautification plan and small-scale pilot project for Bottom District in Dallas;
- Research report on design criteria and implementation recommendations for use of engineered media in biofiltration swales;
- Final reports/case studies summarizing impacts, lessons learned, and any future plans; and
- Panels and expert reviews and papers on the success of the program.

Work Performed and Status: The remaining project from the 2018 solicitation, the City of Watauga's Hightower Drive Biofiltration Rain Gardens, was completed during FY2022 and a final report was provided.

For the Inlet Floatable Filters project, which was selected in the 2021 solicitation, information concerning site use; case studies of best management practices; and reviews of current manufactured designs, impact analyses, and conceptual designs were summarized into a

Literature Review and Data Analysis Report provided to the City of Allen for evaluation and feedback. Additionally, potential locations for installment of floatable filters were examined.

For the Laboratory Testing of Engineering Media for Biofiltration Swales project, also selected through the 2021 solicitation, an advanced literature review was completed, the experimental setup of the laboratory testing environment was designed, and materials and equipment required to complete the proposed bioswales examinations were ordered.

Regional Transportation Council Local funds were utilized for these efforts. Work will continue in FY2023.

Integrated Planning for Regional Transportation, Urban Development, and Stormwater Management

Other Funding Sources

Throughout FY2022 and FY2023, activities contained in this Work Program element concentrate on the integration of regional transportation planning, regional stormwater management, urban development planning, and environmental planning for the purposes of identifying impacts and alleviating risks from severe weather events such as flooding, as well as from other current and future disruptive environmental factors. This comprehensive planning initiative would include assessments of infrastructure and land-use vulnerabilities, analysis of potential lifecycle-based adaptability and durability measures, and determination of possible delivery and maintenance strategies aimed at improving operational capabilities and reducing risk from flooding. Established initially through a working group of partners and stakeholders located in Wise, and portions of Dallas, Denton, Ellis, Johnson, Parker, and Tarrant counties (specifically, the combined watersheds of the Clear Fork, Elm Fork, and West Fork Trinity River basins), this effort would account for future transportation infrastructure plans, future land-use plans, and the resultant stormwater runoff and/or other environmental effects expected to occur based on these plans. Information and outcomes produced from this preliminary study could ultimately be used to conduct similar, all-inclusive, and contiguous studies facilitating opportunities throughout North Central Texas that may reduce lifecycle costs and other burdens to infrastructure and urban development as regional growth continues. The funding source for this initiative is Surface Transportation Block Grant Program funds, Regional Transportation Council Local funds, and Transportation Development Credits. Funds from other federal and state agencies are anticipated as part of the overall program. Consultant and/or subrecipient assistance may be utilized. Anticipated products may include:

- Development, application, and technical analysis of dynamic numerical models for estimating the extent and severity of flooding and other environmental effects;
- Creation and maintenance of Geographic Information System (GIS) map layers, relational databases, web applications, and other technical tools supporting surveys/inventories, spatial analyses, permitting, and project implementation monitoring;
- Benefit-cost analyses and other economic outputs assessing potential multi-disciplinary alternative applications;
- Community engagement and analysis using the Community Health and Resource Management (CHARM) scenario planning tool in coordination with the Federal Emergency Management Agency (FEMA);
- Maps of current/future vulnerable areas and critical transportation facilities to target for enhanced protection and mitigation from flooding events;

- Identification or incorporation of performance measures and evaluation criteria to inform transportation project development and selection processes;
- Engineering products and tools aimed to calculate infrastructure/land-use design parameters, performance degradation, and lifecycle needs;
- Coordination with resource agencies, technical committees, stakeholders, and other partners highlighting outreach, education, training, and regulatory needs and actions; and
- Documentation of recommended policies, programs, and/or projects.

Work Performed and Status: During FY2022, most interagency agreements were finalized between the multiple project partners, along with administrative documentation, budgeting estimates, progress reporting, and deliverable worksheets. Biweekly leadership coordination meetings were scheduled/conducted, and small task-oriented group meetings and large multi-agency "whiteboard" discussions were scheduled/conducted monthly. Staff also participated in a Disadvantaged Business Enterprise open house networking event hosted by NCTCOG in June to collect input/feedback in anticipation of releasing a Subject Matter Expert (SME) Request for Proposals (RFP). The study was formally initiated with public/agency stakeholder meetings conducted in Denton, Burleson, Weatherford, and Springtown during August 2022. Multiple presentations were provided to the Texas Society of Professional Engineers (TSPE), American Society of Civil Engineers (ASCE), American Planning Association (APA), Society of American Military Engineers (SAME), and the Texas Metropolitan Planning Organization (TEMPO) Statewide Resiliency Technical Work Group.

Surface Transportation Block Grant Program funds (CSJ 0902-00-303), Regional Transportation Council Local funds, and Transportation Development Credits supported work activities, and work will continue in FY2023. Funds from other federal and state agencies are anticipated as part of the overall program.

Everman Integrated Stormwater/Flooding Management Study

Other Funding Sources

In FY2022, NCTCOG will conduct a citywide stormwater baseline assessment to identify areas at risk of flooding, integrate stormwater management practices, and identify transportation needs. This baseline is critical to establish the appropriate design elements for the widening of Forest Hill Drive in the cities of Everman, Fort Worth, and Forest Hill. Regional Transportation Council Local funds will be used to support work activities. Anticipated products include:

- Technical memorandum documenting transportation alternatives, flood risks, and recommended stormwater management practices.

Work Performed and Status: Staff collaborated with project partners to estimate the budget and begin development of the scope of work and schedule for a citywide stormwater baseline assessment.

Regional Transportation Council Local funds were used to support work activities and work will continue in FY2023.

Forest Hill Drive Planning Study

Other Funding Sources

In FY2023, NCTCOG will initiate a thoroughfare plan review facilitating the future reconstruction and widening of Forest Hill Drive between Lon Stephenson Road and Shelby Road within the cities of Everman, Forest Hill, and Fort Worth. This work will follow the baseline stormwater analysis conducted in the Everman Integrated Stormwater/Flooding Management Study noted above. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized, and consultant assistance may also be acquired to support these efforts. Anticipated deliverables include:

- Technical memoranda documenting analysis of corridor transportation constraints, needs, and comparisons of proposed operational and capacity improvement alternatives;
- Coordination with resource agencies, technical committees, stakeholders, and other partners highlighting outreach, education, training, and regulatory needs/actions based on sustainability and asset management principles; and
- Final transportation planning direction for the widening of Forest Hill Drive will be documented.

Work Performed and Status: Work on this project is anticipated to begin in FY2023.

4.03 Ensuring Equity, Nondiscrimination, and Environmental Justice in MPO Planning/Program Activities

Transportation Planning Funds

As a recipient of federal funds, NCTCOG is required to ensure nondiscrimination under Title VI of the 1964 Civil Rights Act. Under Title VI and related statutes, each federal agency is required to ensure that no person is excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving federal financial assistance on the basis of race, color, national origin, age, sex, disability, or religion. The Civil Rights Restoration Act of 1987 clarified the intent of Title VI to include all programs and activities of federal-aid recipients, subrecipients, and contractors whether those programs and activities are federally funded or not. Subsequent presidential executive orders call for environmental justice for minority populations and low-income populations; affirmative advancement of equity, civil rights, racial justice, and equal opportunity for people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality; and accountability regarding pollution that disproportionately harms communities of color and low-income communities. As an MPO, NCTCOG strives to ensure that nondiscrimination and the principles of equity and environmental justice are incorporated in its transportation plans, programs, policies, and activities.

This element is ongoing throughout FY2022 and FY2023. Staff will ensure compliance with federal- and state-mandated requirements using data-driven and community-driven methods to assess transportation needs, benefits, and burdens. Anticipated products include:

- Annual and triennial reports;
- Data updates to support decision making;

- Analyses of benefits and burdens of plans, programs, policies, and activities, including the Metropolitan Transportation Plan; and
- Technical and outreach support and training for staff and transportation partners.

Work Performed and Status: Data was updated for the Environmental Justice Index and Transit Accessibility Improvement Tool. Staff conducted the nondiscrimination analysis for the Mobility 2045 Update. Staff also updated additional demographic and equity-related content in the mobility plan and developed a new equity-related program and policies. A survey was designed to identify transportation partners' technical assistance needs that would assist them in incorporating nondiscrimination into their transportation work. Staff received training on the Americans with Disabilities Act and discussed steps to develop a transition plan. The Language Assistance Plan and Title VI Program were updated to remain in compliance with Title VI of the Civil Rights Act of 1964. Support was provided in developing questions for a transit on-board survey. The Title VI/environmental justice website was updated. Training was provided to staff about new equity and environmental justice executive orders, and staff developed methods to incorporate the Justice40 initiative into project scoring and evaluation. A tool was developed to streamline demographic analysis. Staff participated in discussions related to increasing internet equity for urban, low-income residents.

Transportation Planning Funds were used to support work activities and work will continue in FY2023.

Planning to Address Transit Needs in Fort Worth's 76104 Zip Code

Other Funding Sources

Anticipated to begin in FY2022, this study, Planning to Address Transit Needs in Fort Worth's 76104 Zip Code, will engage residents and stakeholders to identify innovative transit solutions that connect residents to healthy food, healthcare, affordable housing, jobs, and other needs. The study will also identify strategies to reduce greenhouse gas emissions in this community, which is divided by an interstate freeway and experiences the lowest life expectancy in Texas. By identifying solutions that improve transit access and reduce emissions, the project will address racial inequities and environmental injustices in a zip code with six census tracts identified as Areas of Persistent Poverty. This initiative will be supported through Federal Transit Administration grant funds, matched with Transportation Development Credits. Anticipated products include:

- Public Involvement Plan;
- Presentations and meeting and interview notes;
- List of performance criteria and targets;
- Documentation of community's potential transit needs and recommended solutions;
- List of strategies to reduce greenhouse gas emissions; and
- Final report.

Work Performed and Status: In June 2022, NCTCOG was awarded a grant from the Federal Transit Administration's Areas of Persistent Poverty Program for a planning study to identify innovative transit solutions and create strategies to reduce greenhouse gas emissions by engaging with nonprofit partners and individuals who live in areas of persistent poverty.

Work on this project is scheduled to begin in FY2023.

4.04 Performance-Based Planning and Coordination

Transportation Planning Funds

Federal and State regulations require performance-based planning to ensure the most beneficial transportation projects and programs are implemented. While data-driven decision making has been a cornerstone of the region's planning processes, this subtask provides for the coordination of this commitment and ensures the federal initiative is fully integrated into NCTCOG's planning process. Work efforts will support both short- and long-range transportation planning efforts. The focus of this subtask will be the continued coordination of data-driven planning activities between staff, regional transportation partners, elected officials, and the public. Activities will include review of evolving rules and regulations related to performance-based planning, as well as oversight of data collection, analysis, and processes to support performance-based planning efforts in the metropolitan transportation planning process. Anticipated FY2022 and FY2023 products include:

- Documentation and presentation materials for stakeholder meetings;
- Maps and databases;
- Documentation of analysis methodologies;
- Documentation of decision-making processes;
- Tracking and monitoring of transportation system performance documentation; and
- Web-based performance measure monitoring reports.

Work Performed and Status: NCTCOG continued to follow evolving federal guidance and rulemaking related to required performance measures. Staff worked with stakeholders, prepared materials, and compiled data in preparation for various target-setting activities, including Regional Transportation Council action on targets for the following rulemakings: System Performance, Freight, and CMAQ (PM3); Transit Asset Management (TAM); and Transit Safety (PTASP) as required by federal rules. Staff also worked with stakeholders, prepared materials, and analyzed data for anticipated Regional Transportation Council target-setting action in early FY2023 on Highway Safety (PM1) and Pavement and Bridge Condition (PM2) measures. In addition, preparation began for the required Full and Baseline Performance Reports.

NCTCOG continued to review and track progress towards meeting targets for these measures while also working towards a suite of its own performance measures beyond those required by federal rulemaking to relate data-driven performance metrics to the goals of its Metropolitan Transportation Plan (MTP). This yielded a data-driven performance measurement framework that was included in the Mobility 2045 Update.

In recognition of the lingering impact that COVID-19 continues to have on the transportation system, NCTCOG continued to track its suite of measures monitoring these multimodal impacts.

NCTCOG continued to coordinate through a series of working groups on performance-based planning topics, including methodology documentation, and continued to maintain a web presence for performance-based planning coordination with enhanced documentation.

Transportation Planning Funds were used to support work activities. Work on performance measurement will continue in FY2023.

4.05 Understanding Public Return on Investment for Transportation Funding

Transportation Planning Funds

Major transportation projects often multiply economic and other effects to a region and the local communities adjacent to the project. This project is a regional study to develop a process for calculating return on investment of public funds for various transportation modes. As a part of this effort, procedures will be developed to apply this process to major transportation projects/corridors within the region. Components include evaluations of direct and indirect effects of a major transportation project such as safety, economic, social, and mobility benefits. Work for this effort will commence in FY2022 and likely extend into FY2023. Anticipated products include:

- Technical report outlining process to determine return on investment, including assumptions, standards, and procedures for application.

Work Performed and Status: An inventory of guidebooks, best practices, and individual case studies was reviewed covering topics on qualifying and quantifying impacts of various transportation improvements. These sources cover mobility, safety, economic, environmental, social, and equity impacts. The review of these sources led to drafting a methodological framework for calculating return on investment. Current procedures on the collection and usage of existing data sources for benefit/cost analyses by the department were integrated as a foundational element for the development of a comprehensive return-on-investment process.

Transportation Planning Funds were used to support work activities and work will continue in FY2023.

4.06 Regional Passenger Rail Planning and Evaluation Process Development

Transportation Planning Funds

Throughout the Dallas-Fort Worth region, several opportunities exist to provide passenger rail service in existing freight rail corridors. During FY2022 and FY2023, North Central Texas Council of Governments (NCTCOG) staff will analyze opportunities within the region where potential passenger rail service may be feasible sometime in the future, and what local governments can do to preserve the corridor and develop compatible land use and economic development options. The activities will include collaboration with many project opportunity owners such as private industry, transportation partners, stakeholders, and local government entities; evaluation of corridor feasibility for rail service now and in the future; and how to prepare the corridor by evaluating land-use options that would facilitate future rail service. NCTCOG staff efforts will include analyzing the feasibility of combined or converted operations, including opportunities for unique synergy, cost efficiencies and savings, operations efficiencies, and transportation system effectiveness. The following products will be delivered as a result of work done on this project:

- Technical memorandums covering evaluation of various scenarios and corridor development alternatives;
- Ridership estimates;
- Technical memorandums identifying project feasibility; and
- Presentations and briefings notes.

Work Performed and Status: Work on this project included development activities and preliminary exploration of potential parameters for inclusion in the corridor evaluation process. Development activities included the production of a work plan and schedule and the identification of potential data resources. Stakeholder outreach was initiated and will continue in FY2023. This project is still in its initial phases.

Transportation Planning Funds were used to support work activities and work will continue in FY2023.

TASK 4.0 – FUNDING SUMMARY

Funding Source	Amount Programmed (2-year)	Authorized (2-year) ¹	Expended (FY2022)	Amount Expended (2-year)	Balance of Programmed (2-year)	% Expended of Programmed (2-year)	Balance of Authorized (2-year)	% Expended of Authorized (2-year)
4.01 - Metropolitan Transportation Planning								
TPF	\$2,490,000	\$1,118,700	\$1,210,918	\$1,210,918	\$1,279,082	48.6%	(\$92,218)	108.2%
Subtotal	\$2,490,000	\$1,118,700	\$1,210,918	\$1,210,918	\$1,279,082	48.6%	(\$92,218)	108.2%
4.02 - Coordination of Transportation and Environmental Planning Processes								
TPF	\$527,200	\$256,300	\$79,985	\$79,985	\$447,215	15.2%	\$176,315	31.2%
STBG	\$3,460,000	\$3,465,000	\$31,350	\$31,350	\$3,428,650	0.9%	\$3,433,650	0.9%
LOCAL	\$688,810	\$711,394	\$108,071	\$108,071	\$580,739	15.7%	\$603,323	15.2%
TWDB	\$0	\$3,000,000	\$0	\$0	\$0		\$3,000,000	0.0%
RTR	\$814,600	\$1,201,537	\$107,268	\$107,268	\$707,332	13.2%	\$1,094,269	8.9%
Subtotal	\$5,490,610	\$8,634,231	\$326,674	\$326,674	\$5,163,936	5.9%	\$8,307,557	3.8%
4.03 - Ensuring Equity, Nondiscrimination and Environmental Justice in MPO Planning/Program Activities								
TPF	\$413,900	\$213,900	\$161,450	\$161,450	\$252,450	39.0%	\$52,450	75.5%
FTA	\$270,000	\$0	\$0	\$0	\$270,000	0.0%	\$0	0.0%
Subtotal	\$683,900	\$213,900	\$161,450	\$161,450	\$522,450	23.6%	\$52,450	75.5%
4.04 - Performance Based Planning & Coordination								
TPF	\$336,800	\$167,900	\$64,003	\$64,003	\$272,797	19.0%	\$103,897	38.1%
Subtotal	\$336,800	\$167,900	\$64,003	\$64,003	\$272,797	19.0%	\$103,897	38.1%
4.05 - Understanding Public Return on Investment for Transportation Funding								
TPF	\$98,200	\$52,600	\$4,372	\$4,372	\$93,828	4.5%	\$48,228	8.3%
Subtotal	\$98,200	\$52,600	\$4,372	\$4,372	\$93,828	4.5%	\$48,228	8.3%
4.06 - Regional Passenger Rail Planning and Evaluation Process Development								
TPF	\$100,000	\$54,400	\$22,765	\$22,765	\$77,235	22.8%	\$31,635	41.8%
Subtotal	\$100,000	\$54,400	\$22,765	\$22,765	\$77,235	22.8%	\$31,635	41.8%
Total	\$9,199,510	\$10,241,731	\$1,790,181	\$1,790,181	\$7,409,329	19.5%	\$8,451,550	17.5%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Chapter VI. Funding Summaries – Transportation Planning Funds (Two-Year Total) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

TASK 4.0 – TPF FUNDING SUMMARY FY2022

	Amount Programmed	Amount Authorized ¹	Amount Expended	% Expended Programmed	Balance of Authorized	% Expended Authorized
4.01 - The Metropolitan Transportation Plan						
TPF	\$1,118,700.00	\$1,118,700.00	\$1,210,918.05	108.2%	(\$92,218.05)	108.2%
4.02 - Coordination of Transportation and Environmental Planning Processes						
TPF	\$256,300.00	\$256,300.00	\$79,984.99	31.2%	\$176,315.01	31.2%
4.03 - Ensuring Nondiscrimination and Environmental Justice in MPO Planning/Program Activities						
TPF	\$213,900.00	\$213,900.00	\$161,449.56	75.5%	\$52,450.44	75.5%
4.04 - Performance-Based Planning & Coordination						
TPF	\$167,900.00	\$167,900.00	\$64,002.91	38.1%	\$103,897.09	38.1%
4.05 - Understanding Public Return on Investment for Transportation Funding						
TPF	\$52,600.00	\$52,600.00	\$4,371.52	8.3%	\$48,228.48	8.3%
4.06 -Regional Passenger Rail Planning and Evaluation Process Development						
TPF	\$54,400.00	\$54,400.00	\$22,764.78	41.8%	\$31,635.22	41.8%
Total	\$1,863,800.00	\$1,863,800.00	\$1,543,491.81	82.8%	\$320,308.19	82.8%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Chapter VI. Funding Summaries – Transportation Planning Funds (Two-Year Total) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

This page intentionally left blank.

V. Task 5 – Special Studies

Providing support to transportation providers is critical in the planning, operation, and maintenance of a comprehensive regional transportation system. The North Central Texas Council of Governments provides support by conducting and participating in a wide range of travel forecasting, planning, and design projects. Emphasis in this task is placed on assisting local governments with subarea and thoroughfare planning studies, providing technical support for projects such as traffic impact analysis and thoroughfare planning, and participation with transportation providers in corridor or subarea studies where the regional transportation planning process has identified the need for additional transportation system capacity. Work in this area also addresses transportation and land-use planning issues, Intelligent Transportation System initiatives, congestion management activities, goods movement, transportation system security and safety, capital and operational asset management, and surface access to aviation. Efforts to streamline and coordinate the planning and environmental review processes to expedite project delivery, implementation projects or programs aimed at reducing congestion and improving air quality, and activities related to the arrival of autonomous vehicles and high-speed passenger technology in the region are also included.

5.01 Regional Transportation Studies

This subtask provides support in the development and refinement of major regional corridor studies. For corridors identified for improvement in the financially constrained Metropolitan Transportation Plan (MTP), as well as other potential facilities being considered for inclusion in future MTPs, a comprehensive, detailed, and environmentally focused study must be performed at the corridor level.

Corridor Studies/Environmental Studies Support

Transportation Planning Funds

This subtask is ongoing throughout both FY2022 and FY2023, providing support in the development of corridor studies. For corridors identified for improvement in the Metropolitan Transportation Plan (MTP), both in the financially constrained and the illustrative list of projects, as well as other potential facilities being considered for inclusion in future MTPs, a comprehensive, detailed, and environmentally and socially focused study must be performed at the corridor level. These corridor studies are funded by Transportation Planning Funds, unless otherwise noted, and may require environmental analysis, evaluation of existing and/or future infrastructure conditions, or other feasibility assistance. These studies are required by federal regulation and serve as a bridge between the regional planning process and the more detailed environmental analysis and corridor design, and engineering phases conducted with partner agencies, including Dallas Area Rapid Transit (DART), the Denton County Transportation Authority (DCTA), Trinity Metro, the North Texas Tollway Authority (NTTA), and the Texas Department of Transportation (TxDOT).

Where transportation investments are contemplated, reasonable alternative strategies for addressing the transportation demands and congestion at a corridor or subarea level of the Metropolitan Planning Area are identified and evaluated in these studies. The corridor study process provides information to elected officials, technical staff, the business community, nearby

property owners, and the general public on the costs, benefits, and impacts of these alternatives so that an informed decision can be made for a corridor improvement strategy. The study process also presents the opportunity to promote a balanced and multimodal transportation network to improve system interoperability and efficiency, and support the goals of the Metropolitan Transportation Plan, along with sustainability, livability, and community land-use objectives. Funding assistance may be requested from the participating agencies and potential private concessionaires involved in Comprehensive Development Agreement (CDA) efforts.

In addition, this Work Program subtask includes technical assistance enabling NCTCOG to respond to ad hoc requests for information and assistance from local governments, transportation authorities, public agencies, Transportation Management Associations, and private interest groups. TxDOT technical assistance requests, such as on- or off-system arterial corridor analysis projects that help determine design concept and scope, are similarly included in this element. Tasks performed as technical assistance usually involve special computer processing and rerunning portions of the travel forecast model to determine travel conditions and assumptions as specified in each individual request. This work is often done for local governments in conjunction with consultants retained by the local government to complete a study or project. Anticipated products of this subtask include:

- Travel demand modeling forecasts for study corridor alternatives and alignment analysis;
- Specialized model runs such as select-link analyses and alternative demographic modeling;
- Report of daily volumes, peak-hour volumes, level-of-service, vehicle miles traveled, ridership totals, boarding and alighting figures, and other travel model data for studies;
- Travel demand modeling forecasts and forecast results reports with supporting tabulations as required for New Starts applications;
- Travel model networks, Geographic Information System (GIS) shape files, and performance reports as model outputs;
- Coordination meetings that monitor and ensure the continued progress of environmental document completion;
- Collection and transmittal of travel model data for potential CDA proposals;
- Environmental study and project updates on the NCTCOG website;
- Feedback to sponsoring agencies on review of document recommendations and design schematics prior to federal action;
- Update to the regional tolling analysis that evaluates potential environmental justice impacts;
- Analysis that quantifies potential environmental justice impacts at the corridor level;
- Written statements of support at public meetings and hearings for corridors;
- Assistance to local toll project entities on feasibility studies for potential toll roads;
- Review of feasibility and corridor study components;
- Evaluation of institutional structures necessary to implement proposed toll roads;
- Public involvement activities;
- Coordination of planning activities with regional transportation partners, including TxDOT and NTTA;
- Corridor recommendations consistent with the Metropolitan Transportation Plan, the Transportation Improvement Program, and Regional Transportation Council policies; and
- Documentation to guide incorporation of asset management principles, performance measures, and pilot project recommendations in the preparatory, analysis, and decision-making efforts for updates to the Metropolitan Transportation Plan, Congestion Management Process, and the Transportation Improvement Program.

The following is a list of roadway and rail corridor studies in the Dallas-Fort Worth area that may require environmental analysis or other feasibility assistance and would be funded with Transportation Planning Funds. These studies will be conducted based on regional priorities, schedules of partner transportation agencies, and staff and funding availability. This list is not exhaustive of all potential corridor studies but is included as a guide for projects on which assistance is currently ongoing or is anticipated.

- IH 35/IH 35W – Denton County;
- IH 35W – Tarrant County/Johnson County;
- IH 30 – Tarrant County;
- SH 121 – Tarrant County;
- IH 820/IH 20/US 287 – Tarrant County (Southeast Connector);
- SH 170;
- SH 161/SH 360 Toll Connector;
- IH 20 – Tarrant County/Parker County;
- SH 114 – Tarrant County;
- SH 199;
- US 287 – Tarrant County/Johnson County/Wise County;
- SH 360;
- IH 820 West Loop;
- US 377; and
- SH 183 – Tarrant County.

Work Performed and Status: The North Central Texas Council of Governments (NCTCOG) participated in and contributed to Texas Department of Transportation (TxDOT)-led roadway corridor studies and environmental document completion by attending regular meetings, reviewing corridor study documents, and providing travel model related data. Additionally, staff coordinated with partner transportation agencies at the regional, State, and federal levels in the development of corridor studies and analyses and worked to ensure consistency between study recommendations and the Mobility 2045 Update.

Individual corridors involving significant staff time and resources during FY2022 included:

IH 35/IH 35W – Denton County: NCTCOG continued to work with TxDOT Dallas and Fort Worth on the development of the overall concept and scope and to determine consistency related to the Mobility 2045 Update. Staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Fort Worth. Work on this corridor will continue in FY2023 as plans continue to develop.

IH 35W – Tarrant County/Johnson County: NCTCOG staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Fort Worth. During these meetings, discussions were held to ensure the ultimate vision of the corridor was depicted correctly in the Mobility 2045 Update. Staff also provided TxDOT updated travel model data from the Mobility 2045 Update. Work on this corridor will continue in FY2023.

IH 30 – Tarrant County: During FY2022, TxDOT Fort Worth continued with the re-evaluation of the IH 30 corridor from Cooper Street to SH 161. NCTCOG staff provided additional travel model data to support corridor planning efforts as additional portions of IH 30 begin the environmental process. Staff also participated in stakeholder meetings. Work on this corridor will continue in FY2023 as this study will require ongoing coordination and technical support.

SH 121 – Tarrant County: NCTCOG staff continued to work with TxDOT Fort Worth on the ultimate vision and recommendations for the SH 121 corridor. Work is expected to continue in FY2023.

IH 820/IH 20/US 287 (Southeast Connector) – Tarrant County: Staff continued to attend bimonthly corridor status meetings. These meetings provided information such as corridor updates, Mobility 2045 Update coordination, and development schedules. Work will continue into FY2023 as this study will need continued coordination and technical support.

SH 170: NCTCOG continued to assist TxDOT Fort Worth to determine the ultimate scope for the SH 170 corridor and for consistency with the Mobility 2045 Update. Additional planning activities will be needed for this corridor in FY2023.

SH 161/SH 360 Toll Connector: NCTCOG staff continued to work with TxDOT Fort Worth and the North Texas Tollway Authority on the evaluation of potential corridor alternatives and recommendations. Staff provided technical modeling assistance to TxDOT for alternative analysis, as well as updated travel model data from the Mobility 2045 Update. Work on this corridor will continue in FY2023 as this study will require additional coordination and technical support.

IH 20 – Tarrant County/Parker County: NCTCOG staff attended TxDOT Fort Worth coordination meetings regarding proposed interim and ultimate improvements for IH 20 from Park Springs Boulevard to SH 161. Origin-destination analysis was completed and provided. Staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Fort Worth and corridor coordination meetings. Work on this corridor will continue in FY2023 as this study will require ongoing coordination and technical support.

SH 114 – Tarrant County: NCTCOG staff continued to work with TxDOT Fort Worth on the interim and ultimate recommendations for SH 114 in the Mobility 2045 Update. Staff also reviewed a preliminary traffic analysis for a breakout project in the corridor. Work will continue into FY2023.

SH 199: NCTCOG continued to provide support to the ongoing TxDOT Fort Worth Feasibility Study for SH 199 from IH 820 to downtown Fort Worth. Staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Fort Worth and corridor coordination meetings related to IH 820, SH 183, and Naval Air Station Joint Reserve Base Fort Worth. Staff also provided TxDOT updated travel model data from the Mobility 2045 Update. Work on this study will continue in FY2023.

US 287 – Tarrant County/Johnson County/Wise County: Staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Fort Worth and corridor coordination meetings. Work on this corridor will continue in FY2023 as plans continue to develop.

SH 360: NCTCOG staff continued to work with TxDOT Fort Worth and cities/counties on proposed interim and ultimate improvements for this corridor. Preliminary travel forecasting activities were also conducted for this corridor. Staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Fort Worth and corridor coordination meetings. Staff also provided TxDOT updated travel model data and demographics from the Mobility 2045 Update. Work on this study will continue in FY2023 as this study will require ongoing coordination and technical support.

IH 820 West Loop: Staff continues to coordinate with TxDOT on the ultimate vision for the corridor, and coordination meetings with the City of Lake Worth were also conducted. Staff also provided TxDOT updated travel model data and demographics from the Mobility 2045 Update. TxDOT plans to officially begin the feasibility study phase in FY2023.

US 377: NCTCOG staff continued to work with the TxDOT Dallas and Fort Worth districts on the development of the overall concept and scope and to determine consistency related to the Mobility 2045 Update. Work on this corridor will continue in FY2023 as plans continue to develop.

Transportation Planning Funds were utilized to support the above work activities.

Other Funding Sources

Texas Department of Transportation funds will also be utilized to carry out the work activities noted above, as well as corridor-level mobile source air toxics analyses, on projects that TxDOT requests assistance on. The following projects are anticipated to be performed using Texas Department of Transportation funds:

- US 75 – Dallas County/Collin County;
- US 80/IH 30 – Dallas County/Rockwall County/Kaufman County/Hunt County;
- US 380 – Collin County/Denton County;
- IH 635 East;
- City Map (Downtown Dallas Freeway Coordination Study);
- SH 190 East Branch; and
- IH 20 – Dallas County.

Work Performed and Status: No Texas Department of Transportation (TxDOT) funds were expended in FY2022 pending execution of an agreement with TxDOT. NCTCOG assistance is anticipated to occur in FY2023.

North Texas Tollway Authority Feasibility Studies

Other Funding Sources

During both FY2022 and FY2023, the North Central Texas Council of Governments (NCTCOG) will assist the North Texas Tollway Authority (NTTA) in providing travel demand modeling for current and future corridor feasibility studies, environmental documents, air quality impact analyses, and traffic and revenue forecasts. NTTA funds have been provided through an interlocal agreement between the two agencies to support this element for corridors listed in the Metropolitan Transportation Plan, as well as other potential NTTA corridors being considered for inclusion in future MTPs. NCTCOG will employ the Dallas-Fort Worth Regional Travel Model, as well as other planning activities, to provide technical data to NTTA in the analysis of new toll or managed facilities, operational enhancements, capacity improvements, or reconstruction of existing toll roads. Anticipated products of this subtask include:

- Technical data from the travel model, including daily volumes, peak-hour volumes, levels-of-service, and vehicle miles traveled for use in the refinement of corridor recommendations; and
- Corridor-level mobile source air toxics analyses.

The following is a list of ongoing and potential feasibility or traffic and revenue studies for NTTA:

- Dallas North Tollway Extension (US 380 to Grayson County);
- SH 190 East Branch (IH 30 to IH 20); and
- President George Bush Turnpike (multiple segments).

This list is not exhaustive of all potential toll facilities or toll-related roadway improvements. The list is also not presented in any sort of order of priority or importance. It is included as a guide for possible projects for which assistance may be requested. Project list revisions, as required, may be made by mutual agreement by NTTA and NCTCOG.

Work Performed and Status: During FY2022, staff was requested to provide model data such as Travel Demand Networks, Roadway Trip Tables, and Demographics from the Mobility 2045 Update to assist NTTA in performing a systemwide comprehensive traffic and revenue study for the NTTA system.

North Texas Tollway Authority funds were utilized to support work activities. NCTCOG staff expects to receive additional requests from NTTA in FY2023.

Strategic Corridor Initiatives

Other Funding Sources

Under this initiative, North Central Texas Council of Governments (NCTCOG) staff will continue to provide technical, planning, and environmental assistance to transportation agencies and the Regional Transportation Council to help advance critical regional projects through development, approval, and implementation as soon as possible. The goal of this program is to help improve life-cycle functionality and reduce cost escalation due to inflation, alleviate congestion faster, assist in meeting air quality goals, and ensure incorporation of asset management and congestion mitigation strategies/principles. As regional roadway and freight/passenger rail projects continue to increase in complexity, scope, and impacts, the NCTCOG Transportation Department has identified a need to expand its involvement beyond its current planning and programming functions to improve project implementation in the Dallas-Fort Worth region.

Throughout FY2022 and FY2023, the program activities will provide assistance to advance all surface modes of transportation, including passenger rail, freight rail, and roadway improvements, particularly on those projects that deal with multiple transportation modes and asset management initiatives. Surface Transportation Block Grant Program funds, Regional Toll Revenue funds, Regional Transportation Council Local funds, and Transportation Development Credits will support this effort. Work products will vary depending on the work performed and could include:

- Meeting summaries;
- Comment review; and
- Technical memorandums.

The following is a list of roadway corridors that may be studied in this element; additional corridors may also be identified:

- IH 820/SH 121;
- SH 183;
- IH 635 East;
- State Loop 9;
- SH 114;
- Outer Loop;
- IH 30 – Rockwall County/Hunt County;
- IH 20 – Dallas County/Tarrant County;
- IH 20/IH 30 – Parker County/Tarrant County;
- IH 35E – Dallas County (including the Dallas North Tollway/IH 35E interchange);
- IH 35E – Ellis County;
- IH 820 West – Tarrant County;
- SH 360 – Tarrant County;
- US 175 – Dallas County;
- US 380 – Collin County/Denton County; and
- US 75 – Collin County/Dallas County.

Work Performed and Status: NCTCOG continued to support the Texas Department of Transportation with strategic project advancement initiatives identified within each of the corridors listed above. In summary, work consisted of assistance with the preparation and review of environmental documents and associated technical memos; development, evaluation, and modification of conceptual designs and engineering schematics; production and analysis of travel demand model simulations; estimations of capital, maintenance, and lifecycle costs and benefits according to construction materials and activity types; assessments of current/future asset conditions and other safety, mobility, and resiliency performance indicators; Metropolitan Transportation Plan (MTP)/Transportation Improvement Program (TIP) consistency checks; and continuing coordination with various transportation, resource, and stakeholder agencies. These activities helped ensure projects met their accelerated delivery schedules, whether through feasibility, environmental clearance, or implementation efforts.

Additional technical activities, documentation, and coordination were conducted with projects along the IH 820/SH 121, SH 183, State Loop 9, IH 20/IH 30, IH 35E, and SH 114/SH 170 corridors in Dallas, Denton, Ellis, Parker, and Tarrant counties for the purposes of evaluating compatibility with Bipartisan Infrastructure Law (BIL) discretionary grant programs. During FY2022, planning, technical, and administrative assistance was contributed to applications prepared and submitted for the Build Back Better Regional Challenge (BBBRC) Program, Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Program, Multimodal Projects Discretionary Grant (MPDG) Program, Safe Streets and Roads for All (SS4A) Program, Bridge Investment Program (BIP), Railroad Crossing Elimination Program (RCEP), and Reconnecting Communities Pilot (RCP) Program. Evaluation and decision-making tools were created to enable proactive project slotting and scenario planning between both current and future BIL discretionary grant solicitations.

Surface Transportation Block Grant Program funds (CSJs 0902-00-262, 0902-00-265, and 0902-00-266), Regional Toll Revenue funds (CSJ 0902-00-161), Regional Transportation Council Local funds, and Transportation Development Credits were used to support work efforts. This project will continue into FY2023.

Collin County Strategic Transportation Initiative

Other Funding Sources

Carrying over into FY2022 and FY2023, work efforts on this initiative include developing a multimodal Collin County plan with emphasis on north-south capacity and east-west connections to Hunt County. Identification of additional modal needs, as well as integration of those modes into the countywide planning effort, will also be performed. Assistance through the University Partnership Program (UPP) will continue to be utilized to estimate the travel impacts of transportation projects under consideration, with a benefit/cost analysis and an economic impact analysis to evaluate the economic implications of potential transportation improvements in Collin County. Also carrying over from FY2021 are efforts focusing on identifying potential improvements to the IH 30, US 380, and SH 66 corridors, as well as identifying recommended changes to the Hunt County Transportation Plan regarding access to Collin County. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support these efforts. Anticipated deliverables include:

- Travel demand modeling;
- Report of daily volumes, peak-hour volumes, levels-of-service, vehicle miles traveled, and other Travel Demand Model data;
- Presentation of results to local government officials;
- Draft technical memorandum detailing methodology and results of analysis; and
- UPP report on the benefit/cost ratio and other economic analysis results to help decision makers evaluate the value of an investment and prioritize projects.

Work Performed and Status: As a component of the Collin County Strategic Transportation Initiative, NCTCOG staff continued to participate in stakeholder meetings and outreach efforts associated with the Collin County Future Mobility Study (CCFMS).

Assistance was utilized through the University Partnership Program in updating the economic benefit evaluation tool developed in FY2021. The tool was modified to integrate with the new regional travel forecasting model. Phase II of this project was completed in the summer 2022, with the updated economic toolkit and final report delivered in August 2022.

Surface Transportation Block Grant Program funds (CSJ 0918-24-237) and Transportation Development Credits supported work efforts. This contract has expired and any future work in FY2023 will be conducted under UPWP Subtask 5.02, Subarea Studies and Local Government Assistance, Comprehensive Transportation Planning Studies and Technical Support.

Harry Hines Boulevard Corridor Study from Loop 12 to Downtown Dallas

Other Funding Sources

In FY2022 and FY2023, NCTCOG will develop a transportation corridor plan for Harry Hines Boulevard from Loop 12 to downtown Dallas. The purpose of this study is to develop a context-sensitive design with modern engineering concepts to provide multimodal transportation options and to increase the sustainability/livability in the corridor. Work efforts will be supported through Surface Transportation Block Grant Program funds and Transportation Development Credits. Consultant services may be used to support this study. Anticipated products include:

- A master transportation corridor plan for Harry Hines emphasizing multimodal transportation and technology options to support sustainable development.

Work Performed and Status: For the Harry Hines study, staff continued working with consultants and City of Dallas staff in development of the Harry Hines Boulevard Master Transportation Plan. This included additional traffic modeling activities as well as the reviewing of technical memorandums that will be included in the final report. There was also extensive coordination with the Texas Trees Foundation and the Southwest Medical District, which included multiple coordination meetings and workshops, on plans they have for the Harry Hines corridor. Staff also facilitated a Harry Hines project workshop with the City of Dallas, Dallas Area Rapid Transit and Dallas County to gain input on corridor alternatives, concepts, and recommendations. A public meeting for the project was held in August 2022, and public meeting comments were catalogued in the final report. The final report included a series of technical memorandums on access management throughout the corridor, bicycle and pedestrian conditions, an existing conditions traffic analysis, crash data inventory, transit and share ride opportunities within the corridor, traffic projection methodology, cost estimates for recommended alternatives, master transportation plan urban design concepts and conceptual corridor configuration recommendations. The final report has been compiled, and the study is completed.

Surface Transportation Block Grant Program funds (CSJ 0918-47-284) and Transportation Development Credits were used to support work activities. This project is complete and will not continue in FY2023.

High-Speed Passenger Technology

Other Funding Sources

North Central Texas Council of Governments (NCTCOG) staff will provide leadership and/or support for work activities related to high- and higher-speed passenger technology within the Dallas-Fort Worth planning area boundary and those areas outside the planning area boundary that impact travel within the boundary. NCTCOG work activities will be supported with Regional Toll Revenue funds and Regional Transportation Council Local funds. Efforts may include all activities associated with planning and implementation of high- or higher-speed passenger technology (i.e., rail, next generation magnetic levitation) in the Dallas-Fort Worth region, as well as activities related to connecting the Dallas-Fort Worth region to other metropolitan areas. Consultant assistance may be used for this initiative. Regional Transportation Council Local funds will be used to support travel and associated costs for implementation of high- or higher-speed passenger technology.

The following products will be delivered during FY2022 and FY2023 as the result of work done on this project:

- Various maps identifying alternatives and Regional Transportation Council policies;
- Development of ridership modeling analyses for various high-speed passenger technology alignments and station locations; and
- Recommended station locations, alignments, and technology.

Work Performed and Status: Work under this element focused on administering the consultant contract for the Dallas to Fort Worth High-Speed Transportation Connections Study, along with hosting several public meetings/open houses toward the end of Phase 1 of this study. Staff

continued coordination efforts with the Federal Railroad and Federal Transit Administrations in transitioning the study from the Phase 1 Alternatives Analysis process, which identified general station locations and alignments, to the Phase 2 Environmental Analysis and Preliminary Engineering efforts. Staff also developed and refined methodology for Phase 2 ridership modeling. Additional efforts centered around monitoring the Dallas to Houston High-Speed Rail project and hyperloop technology advancements.

Regional Toll Revenue funds (CSJ 0902-00-194) were used to support work activities. This project is ongoing and will continue throughout FY2023.

High-Speed Passenger Technology: Dallas-Fort Worth High-Speed Transportation Connections Study

Other Funding Sources

The Regional Transportation Council has secured Surface Transportation Block Grant Program funding, matched with Transportation Development Credits, to support the development of high-speed passenger technology between Dallas and Fort Worth. These dollars and credits will be utilized by the North Central Texas Council of Governments to lead the initiative to complete any pre-National Environmental Policy Act (NEPA) planning efforts, as well as the required environmental documents (either an Environmental Assessment or an Environmental Impact Statement) in accordance with the National Environmental Policy Act on the Dallas-Fort Worth High-Speed Transportation Connections Study. Consultant assistance will be utilized. Anticipated products during FY2022 and FY2023 include:

- Pre-NEPA planning efforts, including preparation of a service development plan;
- Fifteen percent conceptual and 30 percent preliminary design plans of Preferred Alternative;
- Final environmental documents (either Environmental Assessment or Environmental Impact Statement); and
- Finding of No Significant Impact or Record of Decision.

Work Performed and Status: Phase 1 activities performed by the consultant for the Dallas to Fort Worth High-Speed Transportation Connections Study were substantially completed during FY2022. Phase 1 focused on an Alternatives Analysis of high-speed technologies and alignments between Dallas and Fort Worth. Activities during FY2022 included pre-NEPA planning efforts such as alternative refinement and urban connection alternative analysis; continuing public engagement through open house events, as well as stakeholder and community group meetings; and engaging transportation partners and public stakeholders on Phase 1. Documenting Phase 1 results and technical memorandums and hosting monthly coordination meetings with Federal Railroad Administration and Federal Transit Administration staff representatives will continue in FY2023. Phase 2 will be initiated in FY2023.

Surface Transportation Block Grant Program funds (CSJ 0902-00-074) and Transportation Development Credits were used to support work activities. This project is ongoing and will continue throughout FY2023.

Regional Automated Transportation System (ATS) Initiative

Other Funding Sources

Throughout the Dallas-Fort Worth region, many opportunities exist for an appropriate technology to serve as a “last mile” connection or distribution system within a mixed-use activity center area. During FY2022 and FY2023, North Central Texas Council of Governments staff, working in collaboration with the many project opportunity owners, stakeholders, and local government and transportation authority partners, will identify the merits of alternative automated transportation systems (sometimes referred to as people mover) technologies available and assess each regional project opportunity for unique needs, including similarities and synergies. This initiative also includes detailed feasibility studies and engineering design efforts for automated transportation systems (ATS) at particular locations and for particular use cases such as passenger and freight distribution. ATS pilot projects are expected to be pursued in both the eastern and western subregions, as well as potential retrofit applications. Consultant assistance will be utilized for this initiative. Surface Transportation Block Grant Program funds and Transportation Development Credits will be used. The following products will be delivered as the result of work done on this project:

- Technical memorandums covering evaluation of alternative ATS technologies and guideway system integration;
- Technical memorandums evaluating the needs and feasibility of the various regional ATS project opportunities; and
- Engineering designs of location-specific infrastructure for alternative ATS systems.

Work Performed and Status: During FY2022, staff worked with a consultant to develop the Automated Transportation System (ATS) guidelines and standards for future ATS development throughout the North Central Texas region. The ATS Guidelines Study focuses on four key areas: ATS vehicles, modular infrastructure for grade-separated guideways, wireless charging technology, and feasibility to retrofit existing people mover applications in the region. The study will produce an inventory of available and emerging vehicles, an analysis matrix of modular infrastructure materials best suited to these applications, and a retrofit analysis for two locations in the area. The study will be completed in early FY2023.

Additional work was performed by staff on site-specific proposals for ATS implementations in pilot project locations for both people and freight movement, utilizing insights from the ongoing ATS Guidelines Study, as well as providing new considerations for the study. This work included site visits, development of alignment alternatives and maps, and charting critical paths for planning and development at each site to support future engineering design.

Surface Transportation Block Grant Program funds (CSJs 0902-90-008 and 0902-00-269) and Transportation Development Credits supported this project. The project is ongoing and will continue in FY2023.

Regional Passenger Rail Innovative Finance Initiative

Other Funding Sources

During FY2022, North Central Texas Council of Governments (NCTCOG) staff will further investigate innovative funding and implementation opportunities for regional passenger rail systems. NCTCOG staff will coordinate efforts with Dallas Area Rapid Transit, the Denton County Transportation Authority, and Trinity Metro, as well as representatives from local government, State, and federal agencies; property owners; and developers to investigate the possible funding options. NCTCOG, working with stakeholders, will explore options under state and local laws for project implementation, and financial and governance structures, to advance all regional passenger rail projects. Efforts will also include travel demand forecasting. Consultant assistance may be utilized for this initiative, and Regional Toll Revenue funds will be used. The following products will be delivered as the result of work done on this project:

- Technical memorandums documenting analysis related to travel demand forecasting, project implementation, and financial and governance structure options; and
- Mapping of potential alignment alternatives.

Work Performed and Status: Work activities during FY2022 included travel demand forecasting with updated demographic forecasts combined with the recently released 2020 Census data on the major regional passenger rail corridor recommendations in Mobility 2045 and the Mobility 2045 Update. The Irving to Frisco/Celina passenger rail corridor was a significant focus of these efforts as staff, with consultant assistance, had recently completed a study reviewing station locations, funding opportunities, and implementation approaches for this corridor in FY2021. Related to this completed study, staff efforts included digitization of study results and findings to share in a publicly engaging fashion.

Regional Toll Revenue funds (CSJ 0918-47-211) were used to support work activities. This project is complete and will not continue beyond FY2022.

High-Speed Rail/Cedars Planning Study

Other Funding Sources

This study of potential improvements, anticipated to begin in FY2023, will include the review of transportation thoroughfare systems over IH 30. This project will include transportation planning in the Cedars neighborhood of Dallas, transportation connections to the southern sector on both sides of the Trinity River, review of potential structures in proximity of the IH 30 freeway, and preliminary engineering of recommended improvements.

This work will be performed by NCTCOG staff and engineering consultants. It is anticipated that 50 percent of the entire project will be performed by NCTCOG staff and will be conducted in the first 18 months. Consultants will be used for engineering activities in the second 18 months of the study. It is anticipated this effort will be conducted over three years. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work activities. The anticipated products will include:

- A proposed gridded thoroughfare system over IH 30;
- Transportation recommendations for the Cedars neighborhood;

- Transportation recommendations crossing the Trinity River, connecting Oak Farms to the Cedars neighborhood;
- An inventory of possible transportation and economic development structures in proximity to IH 30; and
- As stated previously, 50 percent of the effort will go primarily to engineering of critical projects.

Work Performed and Status: Work on this project is anticipated to begin in FY2024 following execution of an agreement with the Texas Department of Transportation in FY2023.

IH 30/Fair Park Street Grid Planning Study: Foundation for CBD/Fair Park Link

Other Funding Sources

In FY2022, NCTCOG will initiate a planning study of the street grid south and north of IH 30 in the area bound by IH 45 to the west, Carroll Avenue to the east, Main Street to the north, and Fitzhugh to the south to support system redundancy and the traffic incident management process, including travel forecasts and modeling. This project will include a study of the Central Business District (CBD)/Fair Park link. Surface Transportation Block Grant Program funds, Regional Transportation Council Local funds, and Transportation Development Credits will be utilized to support work activities. Anticipated products include:

- Coordination with City of Dallas, Texas Department of Transportation, Deep Ellum Foundation and Fair Park representatives on a common vision for thoroughfare street designs;
- Review of IH 30 thoroughfare and ramp designs to coordinate freeway access and thoroughfare street recommendations; and
- Development of plans to reconnect thoroughfare streets and advance the concept for the CBD/Fair Park Link.

Work Performed and Status: Minimal administrative activities were performed with regard to development of the agreement with the Texas Department of Transportation.

Regional Transportation Council Local funds were utilized to support work activities and work will continue in FY2023.

5.02 Subarea Studies and Local Government Assistance

This subtask provides assistance to local governments, including thoroughfare planning support, comprehensive studies, and technical assistance. This includes coordinating with local, regional, State, and federal agencies and assisting in the preparation of environmental and planning documents, as well as working with local governments in developing the transportation component of a city's comprehensive plan or countywide transportation plan.

Comprehensive Transportation Planning Studies and Technical Support

Transportation Planning Funds

This subtask is ongoing throughout FY2022 and FY2023, providing an evaluation of multimodal transportation needs within a specific geographic area or along an arterial or transit corridor. Subarea studies are designed to study a specific issue and allow for a comprehensive assessment of general transportation needs within an area prior to examining system alternatives. A portion of this subtask is dedicated to assisting local governments in developing the transportation component of a city's comprehensive plan or in the development of citywide transportation plans through the delivery of travel forecasts and technical support for these efforts. This subtask includes technical assistance enabling the North Central Texas Council of Governments (NCTCOG) to respond to ad hoc requests for information and assistance from local governments, transportation authorities, public agencies, Transportation Management Associations, and private interests. Due to the large number of similar requests, NCTCOG will prepare countywide subarea forecasts that can be used to assist local governments with thoroughfare planning needs and to answer many technical assistance questions. Additionally, this subtask allows for coordinated planning efforts that provide Travel Demand Model ridership data and technical analysis to local transit agencies.

Specific projects in this work subtask are listed below. The list is not all inclusive, as additional requests may be considered pending staff and resource availability. The timing in which local governments are ready to begin studies and the availability of NCTCOG staff and consultant assistance drive the scheduling of these efforts. Consultant assistance may be utilized to support these studies, and local governments may be responsible for consultant assistance funding. The policies set forth to guide the activity in this Work Program element are contained in Exhibit I-5. This Work Program subtask also provides traffic forecasting and technical support for subtasks conducted by other program areas within the department. Anticipated products include:

- Countywide subarea forecasts and identification of recommendations;
- Thoroughfare planning guidelines;
- Travel demand modeling for study corridor alternatives and alignment analyses;
- Report of daily volumes, peak-hour volumes, levels-of-service, vehicle miles traveled, ridership totals, boarding and alighting figures, and other travel model data for studies;
- Collection and transmittal of travel model networks, Geographic Information System shape files, and performance reports as model outputs;
- Project updates on the NCTCOG website; and
- Incorporation of recommendations into the next Metropolitan Transportation Plan.

Provided below is a list of ongoing and candidate projects in the Dallas-Fort Worth area which will be conducted or supported based on regional priorities, schedules of partner transportation agencies, and staff and funding availability. This list is divided into three categories that provide a scaled level of NCTCOG staff involvement: Category 1 – NCTCOG is conducting the study; Category 2 – NCTCOG is providing limited analysis and data to support an external study; and Category 3 – NCTCOG is providing existing data in response to small, ad hoc requests for technical assistance.

Roadway

Category 1

- Hood County Transportation Plan (including Chisholm Trail Parkway Extension)
A countywide plan will be developed that incorporates land-use planning, traffic count and accident data, demographic projections, travel demand modeling, local government committee assistance, and public involvement.
- North Tarrant County Transportation Subarea Study
This study will focus on an assessment of transportation needs in northwest Tarrant County. This effort will include a review of current and future traffic volumes, with attention given primarily to the regional arterial system in regard to connectivity and capacity needs.

Work Performed and Status: Evaluations of multimodal transportation needs at the subarea or corridor level to support local governments were performed. The pre-NEPA planning work performed and project status during the reporting period of FY2022 is as follows:

Hood County Transportation Plan (including Chisholm Trail Parkway Extension): Commencement of this planning study is pending collaboration between Hood County and NCTCOG regarding the timeline and scope of the project. Internal meetings and preliminary data collection continued in anticipation of the planning study's commencement. This project will carry over to FY2023.

North Tarrant County Transportation Subarea Study: Continued work on this project is pending additional collaboration between NCTCOG and Tarrant County. Tarrant County staff continues to refine criteria for identifying priority corridors for further study. NCTCOG will provide additional data and planning services when the County needs further assistance. This project will carry over to FY2023.

Category 2

- Dallas County Major Capital Improvement Program (MCIP)
- City of Dallas Comprehensive Thoroughfare Plan Update
- City of Dallas Area Planning Program
- City of Dallas Bike Plan Update
- City of Dallas Comprehensive Plan Update
- Hunt County Thoroughfare Plan
- East-West Connector for Dallas Fort Worth International Airport
- City of Lake Worth Thoroughfare Planning Assistance
- City of White Settlement Thoroughfare Planning Assistance
- City of Cedar Hill West Side Mobility Assistance
- City of Rockwall Thoroughfare Plan Update

Work Performed and Status: Evaluations of multimodal transportation needs at the subarea or corridor level to support local governments were performed. The pre-NEPA planning work performed and project status during the reporting period of FY2022 is as follows:

Dallas County Major Capital Improvement Program (MCIP): Continued work on this project is pending additional collaboration between NCTCOG and the County. NCTCOG will provide

additional data and planning services when the County or its consultants need further assistance. This project will carry over to FY2023.

City of Dallas Comprehensive Thoroughfare Plan Update: Commencement of this project is pending collaboration between the City of Dallas and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2023.

City of Dallas Area Planning Program: Commencement of this project is pending collaboration between the City of Dallas and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2023.

City of Dallas Bike Plan Update: Commencement of this project is pending collaboration between the City of Dallas and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2023.

City of Dallas Comprehensive Plan Update: NCTCOG staff coordinated with city officials and consultants during the spring and summer 2022 regarding modeling scenarios in the convention center area of Dallas. Roadway volumes, scenario maps, and performance report data were delivered upon completion. This project is ongoing and will carry over to FY2023.

Hunt County Thoroughfare Plan: Continued work on this project is pending additional collaboration between NCTCOG and the County. NCTCOG will provide additional data and planning services when the County or its consultants need further assistance. This project will carry over to FY2023.

East-West Connector for Dallas Fort Worth International Airport: NCTCOG continued to work with TxDOT Fort Worth and the Dallas Fort Worth International Airport (DFWIA) on coordination of this project through FY2022. NCTCOG will provide additional data and planning services when TxDOT Fort Worth or DFWIA staff indicate further need. This project will carry over to FY2023.

City of Lake Worth Thoroughfare Planning Assistance: Commencement of this project is pending collaboration between the City of Lake Worth and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2023.

City of White Settlement Thoroughfare Planning Assistance: Commencement of this project is pending collaboration between the City of White Settlement and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2023.

City of Cedar Hill West Side Mobility Assistance: Commencement of this project is pending collaboration between the City of Cedar Hill and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2023.

City of Rockwall Thoroughfare Plan: NCTCOG staff coordinated and met with City officials and consultants in the spring 2022. Alternative demographic and roadway modeling scenarios were run, with roadway volumes, maps, and performance report data provided to the consultants in the summer 2022. This project is ongoing and will carry over to FY2023.

Bachman Lake Area Planning Study: In support of this study, NCTCOG staff performed travel demand modeling and mapping and model data analysis, assisted in the preparation of presentation slides, attended public meetings and elected official briefings, and provided input

on the study final report and recommendations. This project is complete and will not carry over to FY2023.

Southwest Airlines/Love Field Accessibility Analysis: NCTCOG staff conducted travel demand modeling, a demographic analysis, a shortest path analysis, and mapping. Staff also prepared presentation slides and attended meetings with Love Field and Southwest Airlines. This project is complete and will not carry over to FY2023.

Kay Bailey Hutchison Convention Center Study: NCTCOG staff conducted travel demand and transit modeling, provided alternate demographics, and delivered model data and roadway/transit volumes. This project will carry over to FY2023.

Air Taxi/Network Circuity Analysis: NCTCOG staff efforts included a shortest path and travel demand model analysis, and mapping. This project will carry over to FY2023.

Balch Springs Traffic Impact Analysis: NCTCOG assistance included travel demand modeling, mapping, and performance report data analysis. This project will carry over to FY2023.

Transportation Planning Funds were utilized to support work activities.

Category 3

- Technical Assistance

Work Performed and Status: NCTCOG staff responded to multiple requests for information and assistance in FY2022. A table highlighting the larger technical assistance efforts is provided below. This list is not all inclusive of assistance provided during the year. Phone calls and emails with simple responses are not documented but make up a large part of NCTCOG staff's job duties.

Requesting Agency	Project Location	Technical Assistance Provided
City of Dallas	Prairie Creek Road, City of Dallas	Projected Volumes
City of Wylie	City of Wylie	Projected Volumes, Roadway Network
Private Consultant	8th Avenue, City of Fort Worth	Roadway Capacity Information
TxDOT Fort Worth District	US 380, Wise County	Projected Volumes, Roadway Networks
City of Dallas	City of Dallas	Travel Demand Modeling, Alternative Demographics, Roadway Network and Volume Delivery

Transportation Planning Funds were used to support work activities and work will continue in FY2023.

Transit

Category 1

- No projects at this time.

Work Performed and Status: No work was conducted in FY2022.

Category 2

- No projects at this time.

Work Performed and Status: No work was conducted in FY2022.

Category 3

- Technical Assistance

Work Performed and Status: No requests for assistance were received in FY2022.

Collin County Outer Loop

Other Funding Sources

Ongoing throughout FY2022 and FY2023, the North Central Texas Council of Governments will continue to assist Collin County with the development and implementation of the proposed Collin County Outer Loop. This includes coordinating with local, regional, State, and federal agencies and assisting in the preparation of environmental and planning documents. Regional Toll Revenue funds will be utilized to support this effort, and consultant assistance will be utilized. Anticipated products include:

- Local environmental documents working in collaboration with Collin County staff and consultants.

Work Performed and Status: Environmental investigations, analysis, and documentation for the Collin County Outer Loop Segment 3 from the Dallas North Tollway (DNT) Extension to US 75 were finalized for the Collin County Commissioners' Court's review and acceptance. Staff also coordinated regularly with the County regarding ongoing right-of-way acquisition and interim frontage road construction activities.

Regional Toll Revenue funds (CSJ 0918-24-174) were used to support work activities and work will continue in FY2023.

5.03 Land-Use/Transportation Initiatives

This subtask is ongoing throughout both FY2022 and FY2023. Work will include various elements, including Sustainable Development Initiatives, Transit-Oriented Development, and Bicycle/Pedestrian Planning, Safety, and Engineering Initiatives.

Sustainable Development Initiatives

Transportation Planning Funds

This subtask includes regional, subarea, corridor, and district-level planning, along with technical assistance focused on the interface between transportation and land use, including assistance with school siting. Staff will continue work on the development and implementation of tools related to land-use planning principles such as sustainable zoning practices and others and will host training sessions and develop educational information. Staff will continue to pursue funding opportunities to expand or enhance activities. Anticipated products during FY2022 and FY2023 include:

- Technical assistance to local governments on implementing Sustainable Development programs and projects such as the development of unified corridor plans, land-use analysis, data collection, parking technical assistance, education and training regarding transportation and land-use planning best practices, form-based code review, 3D visualization services, financing strategies and tools for economic development, zoning and special district analysis, and planning to promote infill and mixed-use developments;
- Online information, training, and education on topics related to Green Infrastructure, Sustainable Resource Efficiency, sustainable zoning, sustainable school siting, and other such topics to assist in growth management and land-use planning;
- Planning support for the development of the Blue-Green-Grey Program;
- Parking analysis of garage and transportation interfaces at various locations;
- Practical tools for curb lane management throughout the region;
- Meetings and materials for the Coordinated Land Use and Transportation Task Force;
- Analysis of the impacts of mixed-use developments to travel patterns and congestion compared to economic return on investments;
- Kennedale Parkway corridor multimodal access, streetscape, and land-use recommendations for the City of Kennedale;
- Technical assistance to the City of Dallas for the Hensley Field Redevelopment Master Plan, including monitoring of progress as it relates to military planning activities in North Texas; and
- Technical assistance to the City of Plano regarding context-sensitive thoroughfare design best practices.

Work Performed and Status: Efforts continued on the creation of a regional guide for development of public community gardens near transit stations. Four quarterly meetings of the Coordinated Land Use and Transportation Planning Task Force were held to share education among local governments related to best practices for development of walkable mixed-use communities. Staff completed support for the third Blue-Green-Grey Program call for projects with three projects awarded funding and worked to develop a contract and scope for the Bottom District Beautification Design Guidelines Blue-Green-Grey Funding Program award. Staff attended meetings and reviewed and submitted comments on the Hensley Field draft master plan and the Forward Dallas comprehensive plan. Reviews of regional housing and transportation best practices and programs were conducted.

Staff assisted local governments with reviews of transportation and land-use project submissions and infrastructure needs. Scope changes and project modifications occurred for downtown infrastructure projects within the city of Terrell, and the team assisted with the identification of funding eligibility for a project in the Stop Six neighborhood of southeast Fort Worth. Staff worked with local governments for Transportation Improvement Program (TIP) updates as needed. Staff

provided assistance in the development of the work scope for the Agency's Transportation Stormwater Infrastructure project. NCTCOG Sustainable Public Rights of Way meetings regarding activities and best practices were attended. Staff coordinated with the Dallas Trinity Park Conservancy on transportation elements related to the planning for a new regional park.

Transportation Planning Funds were utilized to support work activities. Projects are ongoing and work will continue in FY2023.

Other Funding Sources

The Regional Transportation Council selected a series of infrastructure/construction, planning, and landbanking projects during three Sustainable Development Calls for Projects (SDCFP) in 2001, 2005-2006, and 2009-2010. Efforts in overseeing passthrough construction dollars are conducted in conjunction with local governments to better coordinate transportation investments and land use. This program of projects was originally funded by Surface Transportation Program–Metropolitan Mobility funds (now known as Surface Transportation Block Grant Program [STBG] funds), and Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds and was established in 2001 when the RTC selected the first Land-Use/Transportation Joint Venture projects. Additional RTC Local funds were programmed to fund these projects through the 2005-2006 SDCFP. Regional Toll Revenue funds, Surface Transportation Block Grant Program funds, and local funds were allocated to the program with the 2009-2010 Sustainable Development Call for Projects, and Congestion Mitigation and Air Quality Improvement Program funds, Surface Transportation Block Grant Program funds, and local funds were allocated to the program with the Sustainable Development Phase IV: Turnback, Context-Sensitive, and Transit-Oriented Development funding initiative in FY2018.

Exhibit VI-1 contains the listing of the Sustainable Development infrastructure and landbanking projects still underway. The funds are used to provide:

- Road construction, sidewalks, pedestrian amenities, bike trails, etc.

EXHIBIT VI-1
Sustainable Development Projects

Project Name	Type	Funding Source
Dallas Zang Triangle	Infrastructure	RTR/STBG/TDCs
Dallas-Fiji/Compton	Infrastructure	RTC Local/Local
Dallas Lake Highlands TOD Multimodal Connectivity Project	Infrastructure	RTR/STBG/TDCs
Dallas Collective	Infrastructure	RTR/STBG/TDCs
Dallas-Lake Highlands Transit-Oriented Development Town Center	Infrastructure	RTC Local/Local
Irving Heritage District	Landbanking	RTC Local/Local
Crowley Main Street	Infrastructure	CMAQ/STBG/Local
Ennis UPRR Safety Zone	Infrastructure	CMAQ/STBG/Local
Irving SH 356/Irving Boulevard	Infrastructure	CMAQ/STBG/Local

Project Name	Type	Funding Source
Lewisville College Street	Infrastructure	CMAQ/STBG/Local/TDCs
DCTA Intermodal Transit Center	Infrastructure	CMAQ/STBG/TDCs
Weatherford US 180 (Northern Loop)	Infrastructure	CMAQ/STBG/Local

The 2001 and 2018 projects are coordinated directly between the implementing agencies and the Texas Department of Transportation with staff monitoring project progress. Utilizing Regional Transportation Council Local funds, NCTCOG staff will provide oversight for the implementation of the 2005-2006 infrastructure and landbanking projects. Utilizing Surface Transportation Block Grant Program funds and Transportation Development Credits (TDCs), staff will oversee the implementation of the 2009-2010 infrastructure projects that may be assigned that are project/corridor specific. Regional Transportation Council Local funds will also be used to identify and support the development of future funding opportunities for Sustainable Development initiatives. Anticipated products during FY2022 and FY2023 include:

- Implementation and tracking of infrastructure and landbanking projects which include invoice, progress report, and schedule review; and project sponsor meetings;
- Project tracking and technical assistance to local governments developing Sustainable Development projects;
- Work scopes for plan procurements and consultant selection;
- In-house studies on land use/transportation and sustainability/livability topics of regional benefit;
- Coordination on growth and demographics;
- Training opportunities on regional land use/transportation and sustainability/livability topics of benefit to stakeholders;
- Collection of data as needed, and development and tracking of regional performance measures for reporting to stakeholders and elected officials; and
- Development and assistance in identifying funding programs and grants for regional sustainability/livability initiatives.

Work Performed and Status: Staff continued to work with local governments to implement projects in the Sustainable Development Funding Program.

Two infrastructure projects (Lake Highlands TOD Multimodal Connectivity project and the Dallas Collective project) and one landbanking project (Irving Heritage District Landbanking project) are currently underway, and staff reviewed invoices and progress reports throughout the year. Three projects – Dallas-Fiji/Compton, Dallas-Lake Highlands Transit-Oriented Development Town Center, and Dallas-Zang Triangle – were completed. Staff continued development of metrics and data collection/analysis for an evaluation study of completed Sustainable Development Funding Program projects. Locally led initiatives and other Sustainable Development projects were tracked.

Regional Transportation Council Local funds and local funds were used to support the infrastructure and landbanking project activities. Surface Transportation Block Grant Program funds (CSJ 0918-00-347), Regional Transportation Council Local funds, and Transportation Development Credits were used to support staff activities. Regional Toll Revenue funds noted in Exhibit VI-1 above were paid directly to the implementing agencies by the Texas Department of Transportation. This project is ongoing, and work will continue in FY2023.

Community Schools and Transportation

Other Funding Sources

During FY2022 and FY2023, staff will coordinate with various local cities, counties, independent school districts, and the Texas Department of Transportation to assist in Safe Routes to School project development. The team will provide technical assistance related to needed safety improvements and best practices related to school location siting. Surface Transportation Block Grant Program funds and Transportation Development Credits will support work activities. Anticipated products include:

- Development of Safe Routes to School plans, training, and education information, as well as promotion of Safe Routes to School encouragement activities;
- Technical assistance and best practices related to school siting and transportation connections to schools, and assistance in reviewing roadway and active transportation projects impacting schools and analysis of potential school sites;
- Various maps and route analysis for specific safety or access projects;
- Training opportunities for technical staff and elected officials;
- Coordination meetings between independent school districts (ISDs) and other stakeholders to engage in regional issues related to school siting, safe routes to school, and policy and transportation issues;
- Practical tools for rapidly growing and greenfield cities and ISDs to plan proactively for school siting and safe bicycle/pedestrian access to schools; and
- Survey and/or data collection of site conditions as needed.

Work Performed and Status: Regional school siting and Safe Routes to School Program efforts advanced. Staff continued to develop a Safe Routes to School regional action plan. A workshop focused on street connectivity/subdivision design for Safe Routes to School was held. Staff also provided assistance to cities and Independent School Districts regarding planned or proposed school sites, Safe Routes to School projects, and school site planning coordination efforts. Safe Routes to School projects awarded funding as part of a Transportation Alternatives Call for Projects were monitored for progress in advancement and coordination provided when needed. Application materials and scoring criteria were developed for the 2022 Transportation Alternatives Call for Projects Safe Routes to School category, and eight applications were reviewed and scored. Staff implemented a Walk-to-School Day promotional effort that provided free supportive materials to 26 participating schools in the region.

Surface Transportation Block Grant Program funds (CSJ 0918-00-347) and Transportation Development Credits were utilized to support staff activities. This project is ongoing and work will continue in FY2023.

Bachman Lake Area Planning Study

Other Funding Sources

In FY2022, NCTCOG staff will provide planning assistance to the City of Dallas to advance multimodal transportation coordinated with land use at the convergence of major transportation plans and improvements, including modification of major arterial roads such as Northwest Highway and Harry Hines Boulevard, and the possible second entryway to Love Field Airport. Planning efforts will use stakeholder engagement to identify priorities, goals, and determine areas

of further study. Key emphasis of this multiyear study will be placed on addressing safe pedestrian access/facilities along major roadways to create connections to nearby trails, parks, and transit/DART stations; general connectivity of land uses; and coordination with ongoing studies. Consultant assistance may be utilized. Regional Transportation Council Local funds will be utilized to support work activities. In FY2022, anticipated products include:

- A completed report that will recommend the next phases of implementation.

Work Performed and Status: A final stakeholder meeting was held followed by completion of a next steps recommendations document. Material was posted on the project website and provided to key stakeholders. Follow-up meetings on implementation were held with City of Dallas, Love Field, and Dallas County staff.

Regional Transportation Council Local funds were used to complete project activities. This project is complete and will not carry over into FY2023.

Hickory Tree Road Planning Study

Other Funding Sources

In FY2022, NCTCOG staff will provide planning assistance to the City of Balch Springs for redesign of the Hickory Tree Road corridor to advance context-sensitive design, mitigate congestion, and facilitate future economic growth. Planning efforts will use stakeholder engagement to identify goals and a preferred vision for the corridor and identify any areas of further study. Key emphases of this study will include connectivity of and safe pedestrian access to amenities, conceptual street design that emphasizes both pedestrian safety and access management, and transportation planning integration with land use to facilitate economic growth. Regional Transportation Council Local funds will be utilized to support work activities. In FY2022, anticipated products include:

- Draft and final plans and recommendations.

Work Performed and Status: Staff completed a final plan, including review of existing conditions, development of roadway reconfiguration recommendations, and stakeholder meetings. Final recommendations were presented to the Balch Springs City Council, and a project briefing was held with project partners.

Regional Transportation Council Local funds were used to complete project activities. This project is complete and will not carry over into FY2023.

Regional Mixed-Use Development Study

Transportation Planning Funds

During FY2022 and FY2023, NCTCOG staff will undertake a study investigating the traffic impacts of mixed-use development in the region and its characteristically higher density as compared to standard single use-focused development. The study will 1) explore definitions of mixed use, 2) develop a mixed-use development typology using examples from the region that represent a range of contexts where mixed-use development occurs, 3) use case studies from a range of

contexts to investigate the traffic effects that may be associated with mixed-use development and/or other mitigating factors, and 4) explore tradeoffs associated with implementing mixed-use development. Anticipated products include:

- Development of project work scope; and
- Draft and final report and recommendations.

Work Performed and Status: Staff began compiling a preliminary mixed-use development inventory and developing a work scope, including review of literature and methodologies.

Transportation Planning Funds were utilized to support work activities. This project is ongoing and work will continue into FY2023.

Dallas Opportunity Zone 1: North Oak Cliff Planning and Conceptual Engineering Study

Other Funding Sources

Beginning in FY2022, this project contains three components within this Opportunity Zone. The first component involves the planning and concept engineering of the Jefferson Viaduct, the Houston Viaduct, the interface thoroughfare street entitled Greenbriar Lane, and the extension onto Jefferson Boulevard. This future system of thoroughfare streets is impacted by the age of the infrastructure, changes to the Dallas levee flood control system, economic development opportunities, and context-sensitive design. The second component involves Eads Avenue on the eastern side of IH 35E. The third component is a program that involves traffic calming and access management. All three of these emphasis areas involve planning and concept engineering. It is anticipated that a majority of this work will be conducted through a procurement process engaging the engineering community. The funding source is Surface Transportation Block Grant Program funds, matched with Transportation Development Credits. This item will provide planning assistance to the City of Dallas and is part of a larger system of transportation projects in and near the future high-speed rail station. Anticipated products include:

- Identification of project needs and goals;
- Preliminary work scope for the Viaducts/Greenbriar Lane/Jefferson Boulevard;
- Context-sensitive designs for Eads Avenue; and
- Identification of principles necessary for traffic calming and access management.

Work Performed and Status: Preliminary coordination and scope of work development activities with the City of Dallas occurred with respect to numerous other active/planned projects within and near North Oak Cliff and Downtown Dallas locations connected to the Houston and Jefferson Street viaducts, including the Trinity Park Conservancy/West Dallas Gateway, Kay Bailey Hutchison Convention Center Redevelopment, IH 30 Downtown Dallas "Canyon," Texas Central Railway (TCR) Dallas High-Speed Rail Station, Oak Farms Dairy Redevelopment, and Southern Gateway Deck Park areas. Staff participated in a Disadvantaged Business Enterprise Networking event hosted by NCTCOG in June 2022 in advance of a planned Request for Proposal (RFP) release to procure a Subject Matter Expert (SME) for the project.

Surface Transportation Block Grant Program funds (CSJ 0918-47-307) and Transportation Development Credits. This project is ongoing and work will continue in FY2023.

Transit-Oriented Development

Other Funding Sources

The Transit-Oriented Development (TOD) Program was established to provide education, planning, data collection, and technical assistance to TOD projects. Under this element in FY2022 and FY2023, staff will coordinate with public-sector sponsors to evaluate specific needs for the successful implementation of TOD. Additional work will also be conducted to promote TOD in the region and to develop funding strategies and programs. Staff will analyze local data and identify and develop best practices for development around various transit modes. A regional TOD overall strategy will also be developed with local government participation. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support these efforts. Anticipated products include:

- Data collection intended to document existing conditions, develop performance measures for long-term transportation and land-use planning for areas surrounding rail stations, and other transit-supportive modes;
- Analysis, education, and planning assistance on criteria-related issues such as the impact of the passenger light-rail system on property values in areas near existing rail stations and other transit modes, parking, job-housing balance, typologies, codes, performance measures, and analysis of options for density and design/form-based code zoning;
- Technical assistance to develop market assessments and station area plans to promote TOD in the region; and
- A regional TOD strategy.

Work Performed and Status: A regional TOD inventory database with design guidance was created, including over 238 existing TOD projects, and posted online through an interactive map. Staff drafted concepts for TOD Performance Measures. Staff began initial scoping and coordination for a DART Silver Line Corridor TOD Plan funded by an FTA TOD Planning Pilot grant award.

Surface Transportation Block Grant Program funds (CSJs 0902-00-186 and 0918-00-347) and Transportation Development Credits were utilized to support staff activities. This project is ongoing and work will continue in FY2023.

Bicycle and Pedestrian Planning

Other Funding Sources

The focus of this element during FY2022 and FY2023 is to assist in developing, educating on, and promoting bicycle and pedestrian mobility and safety throughout the region. Utilizing Surface Transportation Block Grant Program funds, local funds, and Transportation Development Credits, staff will plan facilities for active transportation modes; support and provide technical assistance to local governments and the Bicycle and Pedestrian Advisory Committee (BPAC); and advance general data collection, mapping, and a regional bicycle and pedestrian count program. Consultant assistance may be utilized. Staff will also develop and provide public education and information related to safety, accessibility, design, and economic impacts of bicycle and pedestrian facilities. Staff will also manage the updated Regional Safety Campaign: Look Out Texans. Anticipated products include:

- Update of the Active Transportation Planning element for Mobility 2050, including the Regional Veloweb, and performance measures and targets;
- Implementation of a bicycle and pedestrian monitoring and data collection program in the region and coordination with local governments on initiatives;
- Bicycle and pedestrian facility plans associated with transit-oriented development areas, bicycle and pedestrian transportation districts, and corridor-area plans;
- Design guidelines and best practices for on-street and off-street bicycle facilities and shared-use paths, including policies related to context-sensitive solutions for multimodal accommodations within street rights-of-way;
- Healthy initiatives and air quality coordination data;
- Regional pedestrian and bicycle plans;
- Active transportation funding programs;
- Bicycle and Pedestrian Advisory Committee meetings;
- Bicycle and pedestrian public education, research, and information programs;
- Purchase of automated bicycle and pedestrian count equipment, parts, and services;
- A-Train Trail Corridor Utilization Study with the Denton County Transportation Authority;
- Federal and State active transportation programs which may include transportation alternatives programs such as Transportation Enhancement, Safe Routes to Schools, and Urban Thoroughfares;
- Technical assistance to large, regionally significant projects like the Cottonbelt Trail;
- Grant proposals to secure additional program funds or to support regional applications; and
- Technical assistance to cities, towns, and counties, including policy guidance, planning studies, data, mapping, technical guidance, and Geographic Information System (GIS) support.

Work Performed and Status: NCTCOG staff continued ongoing coordination with local governments to integrate updates to the regional trails and bikeway network database and related maps that will be integrated as part of Mobility 2050.

Bicycle and pedestrian traffic count data was collected and reported on a monthly basis, including monthly monitoring of trail usage across the region since the beginning of the COVID-19 pandemic summarized for reporting to committees and NCTCOG's Changing Mobility dashboard. In addition, staff coordinated with TxDOT to provide trail and bikeway count data in the region to be made available through the Texas Bicycle and Pedestrian Count Exchange. Staff continued coordination to provide user count forecast data related to the benefits of Congestion Mitigation and Air Quality Improvement Program funded projects. Coordination also continued with local governments for a group multiagency approach to maintenance and service/equipment upgrades for installed automated bicycle and pedestrian count equipment expected to occur during FY2023.

Four quarterly meetings of the regional Bicycle and Pedestrian Advisory Committee were conducted, including sharing information related to design guidelines and best practices for on-street and off-street bicycle facilities and shared-use paths, and policies related to context-sensitive solutions for multimodal accommodations within street rights-of-way. Staff provided technical assistance and data, attended community stakeholder meetings, and provided support for various local governments developing pedestrian and bicycle master plans.

The team distributed various outreach and advertising materials to local governments and community outreach events throughout the year and coordinated with regional partners to promote safety tips through social media posts and advertisements.

A finalized analysis of pedestrian and bicycle facilities near rail stations served by the Denton County Transportation Authority A-train commuter rail was produced, and staff initiated a similar study of high-frequency bus routes served by Trinity Metro.

NCTCOG coordinated with the Federal Highway Administration to host a workshop for Improving Bicycle Safety at the Intersection and a Designing Pedestrian Facilities for Accessibility workshop for local government stakeholders.

Staff continued research and efforts to develop a regional Complete Street policy template and promote the adoption of Complete Street policies by local governments in the region.

Staff prepared a federal Rebuilding American Infrastructure with Sustainability and Equity grant application which awarded funding to support the construction of pedestrian facilities, trail improvements, bus stop improvements, and transit safety improvements around four Dallas Area Rapid Transit light rail stations in southern Dallas. In addition, staff prepared and submitted a federal Safe Streets and Roadways for All implementation grant application to construct various safety improvements in the Martin Luther King, Jr. Boulevard corridor in southern Dallas.

Surface Transportation Block Grant Program funds (CSJs 0902-00-185, 0902-00-186, and 0918-00-347) and Transportation Development Credits were utilized to support work activities. This project is ongoing and work will continue in FY2023.

Staff will also oversee the implementation of the Regional Bicycle/Pedestrian Sustainable Development Initiatives projects which utilize pass-through Congestion Mitigation and Air Quality Improvement Program funds and Transportation Development Credits available to local governments for the implementation of various bicycle and pedestrian projects. These projects may include, but are not limited to, spot improvements, safety countermeasures, innovative facilities, street reconstruction and rehabilitation as part of bicycle and pedestrian accommodation projects, multiuse trails, signage, pavement markings, traffic signals, and other supportive infrastructure. Staff oversight activities will be supported by Surface Transportation Block Grant Program funds and Transportation Development Credits. Anticipated products include:

- Identification of funding needs and project scopes; and
- General project coordination and project development.

Work Performed and Status: The funding and development of regional trails continued through use of Congestion Mitigation and Air Quality Improvement Program pass-through funds and Transportation Development Credits. Staff continued coordination with Dallas Area Rapid Transit and local governments for the engineering design and construction of critical sections of the Cotton Belt Trail that will be implemented by DART with the Silver Line Commuter Rail project.

NCTCOG staff oversight activities were supported with Surface Transportation Block Grant Program funds (CSJ 0918-00-347) and Transportation Development Credits. This project is ongoing and work will continue in FY2023.

Bicycle and Pedestrian Studies and Engineering

Other Funding Sources

Fort Worth-to-Dallas Regional Trail Branding Plan: During FY2022 and FY2023, staff will oversee the development of a plan for the Fort Worth to Dallas Regional Veloweb Trail, including elements such as tourism and major event infrastructure, wayfinding and directional signage, real-time display counters of trail users, economic development, branding and public education, and implementation. The planning effort will include the cities of Arlington, Dallas, Fort Worth, Grand Prairie, and Irving. Regional Transportation Council Local funds and local funds will be used to support consultant activities, and Surface Transportation Block Grant Program funds and Transportation Development Credits will be used for staff oversight activities. Anticipated products include:

- Plan for infrastructure, signage, development opportunities, branding and public education, and user count equipment; and
- Implementation plan and strategies.

Work Performed and Status: Staff coordinated with the project consultant to develop a new regional trail name and brand, and other project deliverables, including a branding and wayfinding guide. Stakeholder and public outreach processes were completed, including two stakeholder meetings, two online public engagement opportunities, a public survey, and stakeholder interviews. Staff coordinated on scheduling, invoicing, and other project management items.

Surface Transportation Block Grant Program funds (CSJ 0918-00-347) and Transportation Development Credits were used to support staff activities. Consultant work activities were supported through Regional Transportation Council Local funds and local funds from project partners. This project is ongoing and will continue in FY2023.

City of Irving Bicycle Plan: During FY2022 and FY2023, staff will oversee the development of a citywide Bicycle Plan for the City of Irving focused on a seamless network of on- and off-street bicycle facilities integrated with the public transportation and the thoroughfare network. The plan will include stakeholder involvement and analysis of the existing and planned bicycling/public transportation infrastructure network, including gaps in the network, crash data, and technology options. Consultant assistance may be utilized in Phase Two to support planning activities. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work activities. Anticipated products include:

- Citywide bicycle network plan; and
- Project prioritization, implementation plan, and funding strategies.

Work Performed and Status: The team initiated a citywide Bike Plan for Irving, including data collection and analysis; stakeholder, committee, and public meetings; community outreach and an opinion survey; and development of a draft on-street bike network plan.

Surface Transportation Block Grant Program funds (CSJ 0918-47-294) and Transportation Development Credits were used to support staff activities. Work on this project is ongoing and will continue in FY2023.

Regional Pedestrian and Bicycle Safety Campaign

Other Funding Sources

During FY2022 and FY2023 staff will continue to manage and promote the Look Out Texans safety and education campaign. The campaign is intended to inform, encourage, and educate people of various ages, races, and backgrounds about the benefits of multimodal transportation and promote a culture of safety around active transportation in the region. Surface Transportation Block Grant Program funds and local funds will be used to support campaign activities, and Surface Transportation Block Grant Program funds and Transportation Development Credits will be used for staff oversight activities. Deliverables will include:

- Various education and outreach products, which may include billboards, radio ads, print material, social media, bus wraps, etc.; and
- Updates to the Look Out Texans website.

Work Performed and Status: Staff continued the regional safety campaign, Look Out Texans Bike-Walk-Drive Safely, throughout the year via the campaign website, www.lookouttexans.org. Various education and outreach materials were provided for community events, and staff coordinated with regional partners to promote safety tips.

Surface Transportation Block Grant Program funds (CSJ 0918-00-347) and Transportation Development Credits were used to support staff activities. This project is ongoing and will continue in FY2023.

Regional Pedestrian Safety and Bicycle Safety Plans

Other Funding Sources

Carrying over from FY2021, efforts will continue in FY2022 and FY2023 on the implementation and refinement of a regional pedestrian and bicycle safety plan to improve safety for the region's pedestrian and bicycle transportation network. The plan will also serve as a template for the preparation and implementation of local agency pedestrian and bicycle safety plans. This initiative will be funded with Surface Transportation Block Grant Program funds and Transportation Development Credits. Anticipated products include:

- Roadway safety audits of the identified top crash corridors;
- Additional analysis of land-use impacts and various geographies to the crash data; and
- Final plans.

Work Performed and Status: Staff prepared and published a 2022 Annual Implementation Summary Report for the regional Pedestrian Safety Action Plan (PSAP). In addition, further analysis and related updates were completed for the PSAP, which were reviewed by a stakeholder committee and adopted by the Surface Transportation Technical Committee on July 22, 2022, and the Regional Transportation Council on August 18, 2022.

Surface Transportation Block Grant Program funds (CSJ 0902-00-185) and Transportation Development Credits were used to support staff activities. This project is complete and will not continue.

Regional Parking Management Tools and Strategies Program

Other Funding Sources

Parking management at the regional level is meant to improve the efficient use of parking spaces and coordinate the land-use elements of parking with its transportation impact. During FY2022 and FY2023, this program will develop data-driven tools and strategies to support public-sector management and programming of parking at various multimodal locations. Staff will lead planning activities and regional coordination with partner entities who set parking policy. Surface Transportation Block Grant Program funds and Transportation Development Credits will support work activities. Data collection and other consultant services may be required. Anticipated products include:

- Parking Management technology guidance;
- Development of parking management guidance, plans for strategic areas and pilot policy, and program implementation;
- Analysis of parking use and data collection within areas of interest;
- Coordination of integrated parking management studies with land-use planning; and
- Identification of strategies for transitioning parking with technology-driven transportation systems.

Work Performed and Status: Technical assistance to the City of Dallas was initiated for a Deep Ellum district parking study to provide data-based insights on existing conditions and best-practice recommendations on district-level parking management strategies. A Regional Parking Database project was launched with ongoing studies of site-level parking usage. Staff conducted data collection on parking management technology for local government guidance.

Surface Transportation Block Grant Program funds (CSJ 0918-00-308) and Transportation Development Credits were utilized to support staff activities. This project is ongoing and work will continue in FY2023.

Smart Transit Corridors and Walkable Places

Other Funding Sources

Expanding transportation choices requires coordinating land use and transportation policy together to most effectively develop or redevelop multimodal corridors and achieve improved transportation outcomes. Throughout FY2022 and FY2023, this program will focus on multimodal strategies to increase non-single-occupancy transportation options in the region through coordinated land-use and transportation planning in priority transit corridors and walkable neighborhoods.

Staff will identify the priority locations based on regional data and coordination with partner agency staff. Planning work for applicable corridors and locations may include existing conditions analysis and mapping, visioning, data collection, stakeholder engagement, investigations on best practices, pilot implementation, and development of regional, corridor, or area plans. Surface Transportation Block Grant Program funds and Transportation Development Credits will support work activities. Anticipated products include:

- Suggested improvements for bicyclists and pedestrians to access transit;
- Strategies to reduce multimodal transportation barriers in key corridors;
- Review of data and opportunities for job/housing balance;
- Tools and strategies to mitigate gentrification;
- Best practices to support mixed income and workforce housing that increase multimodal trips;
- Examination of economic potential and benefit of transit served and walkable places;
- Collaboration on public-private partnerships to support walkable development;
- Opportunities to leverage land banking in support of multimodal transportation infrastructure;
- Education and training events;
- Walkable area and corridor improvement plans;
- Transit corridor and station area plans; and
- Funding and development strategies for select corridors.

Work Performed and Status: Staff compiled and analyzed data/data sources for measuring trends and impacts of the jobs/housing balance in the region. Staff drafted and presented materials to the Transportation Department for internal feedback and coordinated with the NCTCOG modeling team for next steps. Staff created a map of walkable districts in North Texas based on transportation and land-use design factors and provided opportunity for local government feedback through an interactive map. Staff continued development of a Regional Value Capture Toolbox and Guide based on local case studies, data, and value capture funding best practices. To support increased walkable implementation, the procurement of a regional sidewalk data layer was coordinated with over 150 local governments to support mapping and pedestrian infrastructure needs recommendations.

Surface Transportation Block Grant Program funds (CSJ 0918-00-312) and Transportation Development Credits were utilized to support staff activities. This project is ongoing and work will continue in FY2023.

National Park Service Partnership (Phase 1)

Other Funding Sources

A multiyear effort beginning in FY2022 by NCTCOG Environment and Development Department staff will create and convene a regional stakeholder committee to coordinate various stakeholders seeking to facilitate tourism and recreation along the Trinity River National Water Trail. Regional Transportation Council Local funds will support work activities. Anticipated products include:

- Support to communities and the Trinity Coalition in the selection of new boat launch sites and strategizing on associated funding sources;
- Compliance with design requirements for new and existing boat launches;
- Publication of the national designation, as well as recreation and tourism opportunities with local media outlets; and
- Continuation of collaboration on regional connections between the river trail and the Fort Worth-to-Dallas Regional Veloweb Trail.

Work Performed and Status: Staff participated in stakeholder committee meetings and provided support for planning related to new boat launch locations and the nearby Fort Worth-to-Dallas Regional Veloweb Trail. Staff reviewed project pricing for eligibility and coordinated with

stakeholders on tie-ins to the Fort Worth-to-Dallas Regional Trail Branding and Wayfinding Project.

Regional Transportation Council Local funds were utilized to support work activities. This project is ongoing and work will continue in FY2023.

Regional Economic Development Initiatives

Transportation Planning Funds

This element continues throughout FY2022 and FY2023 and will provide planning assistance and transportation demographic technical information and data to support economic development initiatives throughout the metropolitan area. Benefactors of this support may include the office of the Governor; area chambers of commerce; economic development coalitions, authorities, and groups; and public-private sector partnerships when working to attract new business and large industries to the region. Transportation Planning Funds will be used to support these initiatives, as well as non-federal sources of funding as they become available. Anticipated products include:

- Maps;
- Travel times;
- Traffic counts and volumes; and
- Socio-economic information.

Work Performed and Status: Staff responded to regional economic development initiatives from local governments, transportation authorities, public agencies, and private businesses. The requests were generally simple data inquiries and not specific to a project, location, or facility. A few examples of these initiatives include providing traffic volumes based on the Mobility 2045 Update, demographic data, and traffic counts. Staff also supported NCTCOG's agencywide discussions related to the proposed Build Back Better Challenge grant program by providing possible transportation and defense related projects that might be pursued for grant funding under this program. NCTCOG did not submit a grant application to this program call due to time and staffing constraints.

Transportation Planning Funds were used to support work activities. Additional assistance may be requested in FY2023.

Silver Line Transit-Oriented Development Corridor Planning

Other Funding Sources

Through a grant award in FY2022 under the Federal Transit Administration's Pilot Program for Transit-Oriented Development (TOD) Planning, the Dallas Area Rapid Transit (DART) Silver Line TOD Plan will coordinate with the cities of Carrollton, Dallas, Grapevine, Plano, and Richardson; Town of Addison; Dallas Fort Worth International Airport; University of Texas at Dallas; DART; and private-sector partners along the corridor to advance equitable and connected TOD opportunities at nine regional rail stations. The plan will analyze pedestrian and bicycle access to stations, collect parking data, and evaluate opportunities for land-use policy to support increased access to workforce housing and jobs. Stakeholders will be engaged throughout the process. Varying tasks will be performed at different stations depending on community need. Consultant

assistance may be utilized. Federal Transit Administration funds and Regional Transportation Council Local funds will be used to support this effort. Anticipated projects include:

- Sidewalk and bike routes to rail stations mapping, inventory, analysis, and evaluation of needs with recommended improvements;
- Parking study of existing sites with recommendations on policy and practices appropriate to station area needs;
- Land-use development analysis of jobs and housing access across the transit corridor and recommendations on policies advancing increased opportunity; and
- Stakeholder engagement including presentations, meetings, digital content, and creation of documents with planning recommendations.

Work Performed and Status: Initial coordination on scope of work refinements and key stakeholder meeting scheduling was completed.

Federal Transit Administration funds were used for this planning work. This project is ongoing and work will continue in FY2023.

Dallas Opportunity Zone: South Boulevard – Park Row Historic District Planning Study

Other Funding Sources

In FY2023, NCTCOG anticipates initiating a comprehensive plan to identify transportation and rehabilitation improvements in the South Boulevard – Park Row Historic District of the City of Dallas. This area is bound by Park Row Avenue on the north, Oakland Avenue (aka Malcolm X Boulevard) on the east, South Boulevard on the south, and South Central Expressway on the west. This initiative is intended to help promote revitalization in Environmental Justice communities. This planning effort will inventory the quality of the pedestrian, bicycle, street surface, and traffic signal conditions. An inventory of the quality of residential structures will also be assessed. The planning effort will be conducted by NCTCOG staff as an initial assessment on how best to preserve the quality of neighborhood assets and make recommendations to the modernization of the transportation elements. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work activities. Anticipated products include:

- Inventory of transportation assets;
- Inventory of residential/housing assets; and
- Recommendations to advance additional transportation improvements that maximize the architecture, mobility, accessibility, and quality-of-life attributes of the Park Row historic district.

Work Performed and Status: Work on this project is anticipated to begin in FY2024 following execution of an agreement with the Texas Department of Transportation in FY2023.

Grand Avenue Study (3G: Garland/Gaston/Grand to IH 30)

Other Funding Sources

In FY2023, NCTCOG will initiate a planning and conceptual engineering study to identify needed improvements to Grand Avenue (SH 78) between Garland Road/Gaston Avenue (White Rock Lake spillway) and IH 30. This project will include travel forecasts, travel modeling, context sensitive design and system planning principles for this east Dallas neighborhood. This project will also include management of an update to the prior Garland Road Vision Study by NCTCOG in 2010 that extended from the Dallas/Garland City limits (IH 635) to Garland Road/Gaston Avenue. It is intended that NCTCOG staff will conduct this planning/engineering effort. NCTCOG will partner with TxDOT, the City of Dallas, and the impacted east Dallas neighborhood. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work activities. Anticipated products include:

- Review of the 2010 Garland Vision Study;
- Technical travel demand history and forecast of the impacted corridor from the 3G intersection to IH 30, including a simulation of the new IH 30 freeway design;
- Exploration of context sensitive design options for the corridor; and
- Recommendation on a typical cross section including roadway pedestrian and bicycle network connections.

Work Performed and Status: Work on this project is anticipated to begin in FY2024 following execution of an agreement with the Texas Department of Transportation in FY2023.

5.04 Transportation Asset Management

As defined in federal law, transportation asset management is a strategic and systematic process of operating, maintaining, and improving transportation assets to identify a structured sequence of maintenance, preservation, repair, rehabilitation, and replacement actions that will achieve and sustain a desired state of good repair (SOGR) over the lifecycle of these assets at minimum practicable cost. This subtask will involve work efforts to integrate transportation asset management principles within the metropolitan transportation planning process.

National Highway System (NHS) Infrastructure Performance Measures and Transportation Asset Management Plan (TAMP) Coordination and Reporting

Other Funding Sources

Existing federal regulations now require the Texas Department of Transportation (TxDOT) and the North Central Texas Council of Governments (NCTCOG) coordinate on the establishment and reporting of performance targets for pavement and bridge conditions on the National Highway System (NHS). The NHS includes all Interstate Highways and other roadways designated by the US Department of Transportation (USDOT) as important to the nation's economy, defense, and mobility. NCTCOG has the discretion to support TxDOT's NHS pavement and bridge targets (i.e., agree to plan and program projects so they contribute toward the accomplishment of TxDOT's established targets) or to establish its own quantifiable NHS pavement and bridge targets specific to its Metropolitan Planning Area. As part of NCTCOG's contribution toward achieving established

targets, data analysis, project review, and other technical assistance will be applied toward expediting condition improvements, particularly for bridges and NHS “off-system” pavements.

In addition to complying with NHS infrastructure performance measures, TxDOT is required to develop and implement a Transportation Asset Management Plan (TAMP) for the National Highway System (NHS) to preserve or improve asset condition and system performance as part of the National Highway Performance Program (NHPP). TxDOT has prepared a TAMP that not only focuses on pavement and bridge conditions on the NHS but also addresses the entire State Highway System. The scope of this TAMP includes asset management objectives and performance measures, life-cycle planning, risk management, financial planning, and performance gap analyses. To assist TxDOT with TAMP implementation, this element highlights the supporting role of NCTCOG in aiding TxDOT on data collection/analysis, as well as to disseminate TAMP findings to local jurisdictions with NHS roadways.

Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work activities. Work will be ongoing throughout FY2022 and FY2023, and the following products will be delivered as the result of work done on this element:

- Collection and analysis of NHS pavement and bridge data in coordination with TxDOT and local jurisdictions with NHS roadways;
- Establishment and reporting of NHS pavement and bridge performance targets in coordination with TxDOT and in accordance with federal deadlines;
- Distribution of presentations and reports to guide incorporation of NHS infrastructure performance measures and TAMP findings into updates to the MTP and TIP;
- Development and maintenance of a web page on NHS infrastructure conditions and TAMP compliance, including status updates, meeting materials, and resource information; and
- Development and management of a data and project management system to facilitate reviews of pavement scores and engineering applications directed toward improving NHS “off-system” roadways in poor condition.

Work Performed and Status: Staff participation in national resource agency committees continued to facilitate greater integration of asset condition parameters and asset management principles into considerations of project design, programming for capital and maintenance investments, and metropolitan transportation planning. Examples include the Federal Highway Administration's (FHWA) Transportation Asset Management Expert Task Group (TAM-ETG), Transportation Research Board's (TRB) Asset Management and Performance Management Committees (AJE20/AJE30), American Association of State Highway Transportation Officials' (AASHTO) Performance-Based Management Committee, the Association of Metropolitan Planning Organizations' (AMPO) Technical Committee, and the Texas Association of MPOs (TEMPO) Statewide Resiliency Technical Work Group. Participation in events/meetings and coordination among team members/partners enabled greater and more comprehensive access to data, tools, best practices, and lessons learned with respect to asset condition assessments; lifecycle cost estimation and planning strategy methodologies; cross-asset resource allocations; and the preparation/initiation of effective communication, organizational, and policy-building frameworks. Based on the types of events, work efforts included preparing/conducting meetings, developing and reviewing technical reports, generating presentation materials, crafting and distributing surveys, and completing numerous other technical activities and documentation.

Evaluation of Bipartisan Infrastructure Law (BIL) implications, linkages, and progress reporting for condition-based planning, and asset management and resiliency is ongoing, particularly with relation to various formula and discretionary grant programs. Particular focus has been/will be

the Bridge Investment Program (BIP); Carbon Reduction Program (CRP); Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Program, and the Healthy Streets Initiative. State of good repair and resiliency merit criteria were addressed across multiple BIL discretionary grant applications submitted this year by NCTCOG and partnering agencies. Work efforts continue in support of TxDOT statewide condition targets for National Highway System (NHS) pavement sections and bridges. As of the close of FY2022, all individual bridge projects in the North Texas Strategic NHS Bridge Program Infrastructure for Rebuilding America (INFRA) Grant have been environmentally cleared, and construction is either underway or scheduled to occur by early 2023. Interlocal agreements have been developed and executed to begin in-depth analysis of and improvements to off-system NHS arterial pavements rated in "poor" condition.

Surface Transportation Block Grant Program funds (CSJ 0902-00-262) and Transportation Development Credits supported project activities. Work will continue in FY2023.

Asset Condition-Based Roadway Planning

Transportation Planning Funds

Improved asset management requires acknowledgment and engagement of the various environmental and economic risks that can affect infrastructure vulnerability and longevity. A durable system not only reduces the probability of component failure, but also reduces the potential extent and severity of overall destruction, service interruption, and recovery time as the result of major disruptive events such as severe weather (e.g., flooding, drought, extreme heat, etc.). To that end, this element will incorporate data evaluating regional pavement/bridge conditions and performance targets, recommendations resulting from the FY2021 University Partnership Program's (UPP) Transportation Infrastructure Vulnerability Assessment Study, outcomes from the Integrated Planning Study for Regional Transportation, Urban Development, and Stormwater Management (as described within Subtask 4.02), and other initiatives to inform both project- and system-level asset planning studies. This work will form the basis for conducting systemwide multilevel criticality and vulnerability assessments, identifying customized durability enhancement tactics for various transportation facilities, and utilizing decision making and/or economic justification tools to aid in the development and prioritization of multimodal durability measures and strategic projects, as appropriate.

Work will be ongoing throughout FY2022 and FY2023, and the following products will be delivered as the result of work done on this element:

- Technical memoranda documenting vulnerable and critical transportation infrastructure itemized by defined asset stress types;
- Travel demand modeling forecasts for study corridor alternatives and alignment analyses;
- Quantification of potential asset management impacts and benefits at the corridor/project level;
- Feedback to sponsoring agencies of environmental document recommendations and design concepts prior to implementing agency approval and delivery;
- Project/corridor recommendations consistent with the Metropolitan Transportation Plan, the Transportation Improvement Program, and Regional Transportation Council policies; and
- Documentation guiding continued incorporation of asset management principles, lifecycle-based condition needs, and project recommendations for critical and vulnerable-area infrastructure as part of preparation, analysis, and decision-making efforts for updates to the

Metropolitan Transportation Plan, Transportation Improvement Program, Congestion Management Process, and other complementary plans/programs.

Work Performed and Status: Retrieval and integration of updated bridge/pavement asset data to fulfill Fixing America's Surface Transportation (FAST) Act and Infrastructure Investment and Jobs Act (IIJA) target tracking, project-based progress reporting and resilience vulnerability assessment compliance requirements for the 2023-2026 Transportation Improvement Program and the Mobility 2045 Update were performed during FY2022. Corridor asset information continues to be collected/updated and utilized in the evaluation of corridors as possible candidates for State/federal discretionary grant opportunities. Staff remains actively engaged in webinars, peer exchanges, and other interactions/correspondence for opportunities to learn/evaluate available asset management and resilience-based databases, examination tools, return-on-investment/benefit-cost ratio calculation methodologies, communication/visualization platforms, and public/agency involvement strategies aimed to influence project programming activities toward improved system lifecycle optimization.

Work is ongoing regarding data collection, methodologies, and the development of tools to aid initiating regular, comprehensive, and systemwide multimodal all-hazards criticality and vulnerability assessments of the transportation network. Execution of the Integrated Planning Study for Regional Transportation, Urban Development, and Stormwater Management (UPWP Subtask 4.02), and other initiatives will help inform project- and system-level asset planning studies soon, and initial general estimations/projections of condition were provided for the Mobility 2045 Update.

Transportation Planning Funds were used to support these work activities. This project is ongoing and will continue in FY2023.

Streamlining Potential Interventions to Enhance the Life Cycle Condition and Maintenance of Bridge Assets

Transportation Planning Funds

As part of the Regional Transportation Council's commitment to help the Texas Department of Transportation and other National Highway System (NHS) asset owners make progress in the accomplishment of federal condition targets (PM2) for bridges, this initiative, through the University Partnership Program, will develop a strategic software tool for users to determine feasible interventions to improve condition ratings or extend serviceability of bridges throughout the regional roadway network. Methodology for the tool will be based on the comprehensive review of National Bridge Inventory (NBI) ratings, evaluation of a wide sample set of bridge inspection reports, categorization of possible deficiencies between good/fair/poor ratings on various bridge components, and the identification of corresponding and viable interventions with potential to upgrade safety, functionality, and/or service life. The tool would address a critical knowledge and implementation gap on available or innovative cost-effective maintenance measures for most bridge types, with due respect to environmental factors, service/load demands, and material thresholds, which can be used to either increase or slow the decline of condition ratings throughout a bridge's typical lifecycle. Work will occur throughout FY2023, and the following products will be delivered as the result of work performed on this element:

- Creation of regional bridge condition maps and location-specific fact sheets highlighting critical bridge attributes such as component performance, structure age, load and vertical clearance limitations, and obsolete design characteristics;
- Technical memorandums highlighting observations/assessments of NBI ratings, inspection reports, deficiency categories, and intervention measures;
- Software tool with user-friendly manual describing inputs, potential outputs, assumptions, and benefit/cost information;
- Final report describing tool methodology, applications, and possible implications for bridge PM2 target setting and progress reporting; and
- Stakeholder dissemination and training workshops to gain/apply feedback from asset owners.

Work Performed and Status: This University Partnership Program project was initiated in FY2022. National Bridge Inventory (NBI) data and various ratings for all regional bridges (on-/off-system) were downloaded and organized for review/analysis by the project team.

Transportation Planning Funds were used to support these initial work activities. The project is ongoing and will continue in FY2023.

5.05 Congestion Management Planning and Operations

The Regional Transportation Council (RTC) has selected the following congestion management planning efforts and operational strategies through a series of funding initiatives. The strategies listed below are congestion management directives and special projects that NCTCOG is responsible for implementing and/or administering. Efforts in this subtask will be conducted in conjunction with local governments for better coordination of transportation operations and investments.

Congestion Management Process (CMP) Documentation and Compliance

Transportation Planning Funds

As defined in federal guidelines, the Congestion Management Process is a regionally coordinated approach that provides accurate, up-to-date information on measuring congestion levels and assessing strategies for addressing congestion that meets State and local needs. A CMP is required in urbanized areas with a population exceeding 200,000, known as Transportation Management Areas (TMAs). In TMAs designated as ozone or carbon monoxide nonattainment areas, federal regulations prohibit the programming of federal funds to projects that result in a significant increase in carrying capacity for single-occupancy vehicles (SOVs) unless such projects can be justified and incorporate any reasonable Travel Demand Management (TDM) and Transportation System Management and Operation (TSM&O) strategies identified in the CMP.

The updating and maintenance of the CMP documentation for the Dallas-Fort Worth Metropolitan Area is a major element of this Work Program subtask. While the wide range of higher-cost capacity expansion projects and other major infrastructure investments identified in the MTP are needed to meet long-term transportation demands, the CMP focuses on identifying a range of lower-cost, short-term strategies for addressing congestion on the most congested roadway corridors in the region. In addition to TDM and TSM&O strategies, the CMP identifies Asset

Optimization strategies where corridor deficiencies and performance gaps can be addressed within the existing right-of way, using lower-cost operational and capital improvement strategies that are more cost-effective and quicker to implement than higher-cost capacity expansion projects. Work will be ongoing throughout FY2022 and FY2023, and the following products will be delivered as the result of work done in this element:

- Updated and maintained CMP documentation;
- Presentations and maps utilizing CMP data and information;
- Completion of justification analysis and CMP commitment identification for non-exempt single-occupancy vehicle (SOV) capacity-increasing projects submitted for Transportation Improvement Program (TIP) funding;
- Coordination with TxDOT and other implementing agencies of significant SOV capacity-increasing projects to complete CMP forms;
- Integration of corridor-specific CMP strategies into updates to the Metropolitan Transportation Plan and the TIP, and within corridor and environmental studies initiated through Subtask 5.01; and
- Development and maintenance of a web page on the CMP and related strategies, including status updates, CMP forms, meeting materials, and resource information.

Work Performed and Status: Congestion and Asset Management team members continued project planning and stakeholder outreach to continue to review and update the 2021 Congestion Management Process effort. In coordination with the ongoing CMP update, both Single-Occupancy Vehicle (SOV) Analysis and CMP Implementation and Monitoring Procedures (together known as CMP Compliance) were updated, and a new CMP Implementation Form was completed. Staff continued to provide guidance for the CMP Compliance process to agencies adding capacity projects, including both TxDOT Dallas and Fort Worth District staff. The CMP web page was updated with the new CMP Implementation Form 2022 and other CMP-related items, including the CMP Compliance Form instructions.

Transportation Planning Funds were used to support these work activities. This project is ongoing and will continue in FY2023.

Asset Information Planning Tool Development

Transportation Planning Funds

This element will involve the development of asset information planning tool software with database and visualization features for storing and analyzing transportation asset data. Work efforts will involve the identification of asset data that is readily available from internal and external sources, prioritizing the asset data (asset types, attributes, etc.), and collecting and organizing the asset data. Additional activities will include evaluation of options for collecting additional data, implementing outreach to increase awareness of this tool, and integrating congestion mitigation strategies from the Congestion Management Process (CMP). Work will be ongoing throughout FY2022 and FY2023, and the following products will be delivered as the result of work done on this element:

- Integration of the data fields from the corridor fact sheets from the Congestion Management Process Update documentation into the planning tool;
- Ongoing coordination with program areas to maintain the planning tool to keep data current and reliable; and

- Documentation to guide incorporation of planning tool information and reports into updates to the Metropolitan Transportation Plan, Unified Transportation Program, and Transportation Improvement Program.

Work Performed and Status: The integration of performance and asset data items to update the Congestion Management Process, as well as data sources and evaluation methodologies continued in FY2022. The performance data items include crash data from the Texas Department of Transportation (TxDOT) Crash Record Information System, travel time index and level of travel time reliability from the Federal Highway Administration National Performance Management Research Data Set, and TxDOT Pavement Management Information System bridge and pavement conditions data. In addition to performance data, corridor asset information has also been collected and was utilized in the evaluation of the CMP corridors. The asset data items include parallel arterials, frontage roads, parallel freeways/tollways, park-and-ride facilities, light rail, commuter rail, bus routes, shoulder availability, Intelligent Transportation Systems, truck lane restrictions, and high-occupancy vehicles/managed lanes. Ongoing meetings and coordination efforts with program areas that maintain the performance and asset data outlined above continued. These meetings have prompted a process to continue to collect and maintain the most current year of these data items. The process and evaluation efforts have been coordinated and will be documented in future Metropolitan Transportation Plans, Unified Transportation Programs, and the Transportation Improvement Program.

Transportation Planning Funds were used to support these work activities. This project is ongoing and will continue in FY2023.

Other Funding Sources

This element will also utilize Surface Transportation Block Grant Program funds and Transportation Development Credits to assist with the development of the planning tool. Once the planning tool is in place, it would be maintained and upgraded by NCTCOG staff. Consultant assistance will be utilized. Anticipated products include:

- Development of a work program and request for proposals for the selection of a consultant to assist with the development of the planning tool software;
- Management and oversight of the consultant contract and invoices;
- Development of a planning tool software and website application that produces maps, tables, reports, and fact sheets which will highlight asset management data analyses and congestion mitigation strategy implementation and effectiveness; and
- Training classes, workshops, and instructional materials (user's guide) for internal and external users of the planning tool.

Work Performed and Status: Consultant assistance is not being pursued as part of this effort. The Congestion Management Process (CMP) performance and asset data integration and filtering have historically been completed using a manual process; this task is implementing software to automate the process moving forward, and work on the automation process is underway. Staff developed materials and performance measures to meet with agencies identified along the CMP Strategy Corridors. Staff began with 17 corridors. After further conversation with partner agencies, the corridors were reduced to 9. The corridors that were removed from this category were corridors that were under construction or are part of another project. Staff pulled additional data and performance measures on the remaining corridors from various tools to discuss with CMP Strategy Corridor Working Groups. Staff met with three CMP Strategy Corridor Working Groups to discuss corridors and identify possible CMP strategies for implementation

along the corridors. These tools will also be utilized to evaluate the effectiveness of strategies implemented as a continuous effort.

Surface Transportation Block Grant Program funds (CSJ 0918-00-304) and Transportation Development Credits were used to support these work activities. This project is ongoing and will continue in FY2023.

Transportation System Management and Operations

Transportation Planning Funds

This program is ongoing throughout FY2022 and FY2023, supporting development of regional Transportation Systems Management and Operations (TSM&O) strategies. It includes strategies such as intersection and signalization improvements, grade separation, freeway bottleneck removal, and Intelligent Transportation Systems (ITS) which will be developed to reduce travel time and enhance system reliability. Anticipated products include:

- Monitoring, updating, identification, and evaluation of regional TSM&O plans, policies, and projects outlined in the Metropolitan Transportation Plan and Congestion Management Process;
- Evaluation of TSM&O projects for inclusion in the Transportation Improvement Program, including project-level statements of architecture consistency;
- Support and assistance to regional partners to plan strategies and promote cooperation and participation in committee meetings;
- Evaluation of vehicle and infrastructure technology; and
- Monitoring and assessment of Metropolitan Transportation Plan Policy Bundles survey for TSM&O-related survey components.

Work Performed and Status: NCTCOG staff continued to develop, implement, and monitor regional Transportation Systems Management and Operations goals and strategies outlined in the Metropolitan Transportation Plan. Coordination efforts continued with cities and the Texas Department of Transportation (TxDOT) to identify, evaluate, and track deployment of TSM&O strategies/projects and technologies within the region, and staff participated in regional TSM&O plan updates. Staff updated the Safety and Operations section of the Mobility 2045 Update Policy Bundle survey to update criteria for future applications to be submitted by local governments, transit agencies, and Independent School Districts.

Staff continued to work with TxDOT to update an inventory of agencies that are connected to center-to-center (C2C) plug-ins and those agencies that require connection. Together, TxDOT and NCTCOG monitored existing and initiated new agreements needed for sharing TxDOT data and video and for implementing the regional communication system. Staff also oversaw the identification, prioritization, and development of C2C plug-ins for local agencies.

Two ITS Stakeholder Task Force meetings were held for regional partners, providing an overview and update to participants on regional ITS activities. Activities included updates on TSM&O-related projects from NCTCOG and local agency staff.

Transportation Planning Funds were utilized to support work activities. This project is ongoing and work will continue in FY2023.

Intelligent Transportation Systems (ITS) Architecture

Transportation Planning Funds

This program is ongoing throughout FY2022 and FY2023, supporting development of regional Intelligent Transportation Systems plans and Regional ITS Architecture. ITS improves transportation safety and mobility, reduces environmental impact, and enhances productivity through the integration of advanced communications-based information and electronic technologies into the transportation infrastructure and vehicles. The ITS Architecture guides the use of ITS and builds regional consensus for integrating the systems of multiple agencies in the Metropolitan Planning Area. Anticipated products include:

- Identification and documentation of standards for interagency communication of data and video through Center-to-Center-related software and requirements to facilitate information sharing between agencies;
- Update of the Regional ITS Architecture and development of associated plans and documents;
- Review and approval of project-level statements of ITS Architecture consistency; and
- Update of the Regional ITS Architecture Strategic Deployment Plan.

Work Performed and Status: Projects submitted through the Transportation Improvement Program were evaluated to ensure compliance with the Regional Intelligent Transportation Systems (ITS) Architecture. Review and approval continued for all project-level statements of ITS Architecture consistency for ITS projects to receive federal funds.

Work on executing a Memorandum of Understanding (MOU) by regional agencies to form a Regional Network Committee is ongoing. Agencies are encouraged to execute the MOU with the purpose of establishing a regional network. This regional network would facilitate sharing of communications infrastructure, transportation data, and transportation-related video.

The Regional ITS Architecture Strategic Deployment Plan Project Listing was updated, and discussion related to prioritization of projects was initiated with the ITS Stakeholder Task Force meeting participants. A Strategic Deployment Plan Project Listing Committee was organized and convened to provide input into the process.

Transportation Planning Funds were utilized to support work activities. This project is ongoing and work will continue in FY2023.

Regional Data Hub and 511DFW

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023, supporting development, testing, implementation, and operations of the regional data hub and 511DFW. There is a significant need for the transportation industry to roll out an enterprise solution that will provide standardized interfaces to reduce integration cost and ensure data interoperability and effective data sharing across the region. Utilizing the open-source data hub platform developed by the California Department of Transportation (CalTrans), NCTCOG plans to implement, test, and integrate data sources from the various regional partners and other sources into a cloud-based system to allow for scalability, latency, and security. The data hub will consume standard data inputs from

applications, enable sharing of data within the region, make it easy to deploy best-of-breed applications without complex procurement specifications, and allow each agency the freedom to procure systems that best meet their needs. The 511DFW system will feed information into and may consume data from the data hub. 511DFW comprises the public-facing regional Traveler Information System, and the agency-facing user interface for information and performance measures platform. The 511DFW system's public website (511dfw.org) provides personalized travel information and the Transit Trip Planner link. This program uses Surface Transportation Block Grant Program funds, Texas Department of Transportation funds, and Transportation Development Credits to support activities in this area. Consultant services may be utilized. Anticipated products include:

- Testing and implementation of existing regional data hub and interfaces within the Dallas-Fort Worth region developed by CalTrans;
- Evaluation and integration of new and existing data types/sources into and from regional data hub;
- Evaluation, improvement, implementation, and operations of the 511DFW system with outreach and communications planning and educational services to enhance public awareness and use of 511DFW;
- Collection and verification of data ensuring that devices and systems are operated and maintained at a level to detect and report accurate information (i.e., speeds, counts, and other data items);
- Agreements for regional communication, infrastructure, and information sharing, including the Memorandum of Understanding between the Dallas-Fort Worth regional ITS partner agencies; and
- Agreements for data and video sharing with individual partners or third-party sources.

Work Performed and Status: Staff continued to work towards the establishment of a regional data hub to collect and archive ITS data. ITS data archiving is an initiative to archive traffic information by gathering data from multiple agencies using C2C software and the regional ITS communication network. Staff continued to work with the TxDOT Dallas and Fort Worth districts to address data issues and concerns, and evaluate new methodologies for open-source data transmission and archiving. Efforts continued to encourage the multiagency use of direct data communication through C2C.

Management and operations of the 511DFW Traveler Information System continued, in addition to the identification of additional future enhancements. Recommendations for additional improvements continue to be solicited. An amendment to the consultant contract was implemented to provide maintenance and operations of the 511DFW system for an additional year. A Request for Proposals (RFP) was released to select a vendor for establishing a new contract for future 511DFW enhancements and to provide for continued maintenance and operation.

Work on the collection and verification of data to ensure that devices are operating at a level to detect and report accurate information was carried out under UPWP Subtask 2.02, Transportation Data Development, Enhancement of Quality of Data Collected by Radar Vehicle Detectors.

Surface Transportation Block Grant Program funds (CSJs 0902-00-259, 0902-00-260), Texas Department of Transportation funds, and Transportation Development Credits were utilized to support work activities. This project is ongoing and work will continue in FY2023.

Development of Regional and Corridor-Level TDM Strategies

Transportation Planning Funds

This element is ongoing throughout FY2022 and FY2023, providing for the planning and development of regional Travel Demand Management (TDM) strategies, including, but not limited to, employer trip reduction initiatives, carpools, vanpools, park-and-ride facilities, and transportation management associations. This element also supports the development of regional TDM strategies in the Metropolitan Transportation Plan. Regional Travel Demand Management strategies identified in the Congestion Management Process (CMP) will be applied on a regional level, and additional travel demand reduction strategies will then be evaluated for their application on the corridor and subarea levels. At the project implementation level, TDM projects are monitored so they can be added to the regional Transportation Improvement Program at the appropriate time with respect to the single-occupancy vehicle facility implementation. Anticipated products include:

- Monitoring of regional TDM goals and strategies outlined in the Metropolitan Transportation Plan and the Congestion Management Process;
- Assessment and monitoring of Metropolitan Transportation Plan Policy Bundle surveys for TDM-related survey components;
- Assessment and monitoring of public- and private-agency participation in the regional trip reduction target setting for single-occupancy vehicle trips;
- Maintenance of and updates to the Regional Park-and-Ride Inventory database and map;
- Coordination with regional partners for the collection of TDM-related performance measures and/or activity reports for inclusion in TDM reports; and
- Development and implementation assistance efforts to regional employers in developing or strengthening alternative commute programs within their agencies.

Work Performed and Status: Staff continued to manage and oversee the Regional TDM Program and monitor strategies in various plan documents and programs. Staff updated chapter content for the Mobility 2045 Update and developed new program scoring criteria for the MTP Policy Bundle survey. Staff continued to update and maintain the regional park-and-ride facility inventory listing and updated online map resources. Coordination activities continued with the Southern Dallas County Inland Port Transportation Management Association (TMA) in Dallas and the Legacy Connect TMA in Plano as it related to the Try Parking It platform. Staff initiated discussions regarding the implementation of the Regional Single-Occupancy Vehicle (SOV) Trip Reduction Target Resolution which established an annual target of a 20 percent reduction for SOV trips during peak periods. TDM-related performance measures were collected, tracked, and included in the 2021 TDM Annual Performance Report. Staff also continued outreach efforts to public and private employers to promote the implementation of applicable TDM strategies.

Transportation Planning funds were utilized to support these work activities. This project is ongoing and work will continue in FY2023.

Special Events

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023, providing planning and implementation activities for various transportation service needs for special events. NCTCOG continues coordination and technical support for local governments, transportation providers, and other key stakeholders in North Central Texas regarding the regional coordination of special event management plans and critical infrastructure needs to support these events. Surface Transportation Block Grant Program funds and Transportation Development Credits will support this initiative. NCTCOG staff will provide oversight of this program. Anticipated products include:

- An inventory of major special events in the region;
- Coordinated regional partner involvement;
- Implementation of coordinated congestion management strategies associated with special events;
- Identification of funding sources or shared resources, and funding agreements executed with regional partners to implement projects; and
- Committee meetings.

Work Performed and Status: Staff continued to coordinate activities, including the use of an inventory for regionally significant special events; monitor special event calendars; and work with regional partners to develop strategies and plans for special events. Dialogue was maintained with regional partners to plan for large special events within the region to understand critical infrastructure needs to support these events. Staff continued to work with TxDOT and the cities of Arlington and Grand Prairie to identify the hours of operation for the IH 30 reversible managed lanes and coordinated with TxDOT and the North Texas Tollway Authority to monitor the system and post messages on dynamic message boards during 154 events.

Surface Transportation Block Grant Program funds (CSJ 0902-90-049) and Transportation Development Credits were utilized to support work activities. This project is ongoing and work will continue in FY2023.

Auto Occupancy Detection Technology

Other Funding Sources

This element is ongoing throughout FY2022 and FY2023. To facilitate efficient operation, toll collection, and/or incentive credits on the use of the transportation system, the region has implemented a technology-based system to verify auto occupancy. The region plans to utilize advanced technology for vehicle occupancy detection and verification, as well as other equipment, to improve the safety and operations of the transportation system. As part of this task, NCTCOG staff will provide public outreach and education regarding auto occupancy detection and verification technology. Staff will also work with regional partners to implement occupancy-based technology, user-based incentives, and dynamic pricing. This element also supports NCTCOG's membership in, and support for, research under FHWA's High Occupancy Vehicle/Managed Use Lane Pooled Fund Study. Congestion Mitigation and Air Quality Improvement Program funds, Surface Transportation Block Grant Program funds, Federal Highway Administration funds, Regional Toll Revenue funds, Texas Department of Transportation

funds, Regional Transportation Council Local funds, and local funds will be used to support these activities. Anticipated products include:

- Coordination and meetings with partner agencies as needed;
- Public outreach and education on auto occupancy detection technologies and user-based incentives;
- Implementation and integration of technology to detect/verify auto occupancy on the transportation system;
- Monitoring of the effectiveness of technology to detect auto occupancy; and
- Support for and participation in FHWA High Occupancy Vehicle/Managed Use Lane Pooled Fund Study.

Work Performed and Status: Regular meetings continued to be held with partner agencies to discuss operational aspects and performance measures of the auto occupancy detection and verification technology on managed lanes within the region. Updates continued on the communication plan to refresh communications talking points, creative pieces, and messaging. Communication work continued, including social media and how-to-use videos. Staff continued to track usage, monitor and respond to customer service inquiries, and develop talking points and processes for violators. NCTCOG staff has been coordinating with the Texas Department of Transportation, Texas Transportation Institute, and Carma Technologies to execute the funding agreement and contracts for the Surface Transportation System Funding Alternatives (STSFA) Program. The corridor for the STSFA Program is still to be determined as meetings were held throughout the year to determine that US 75 would not be completed in time to implement this pilot along the corridor. In addition, staff continued to attend meetings and participate on the FHWA High-Occupancy Vehicle/Managed Lane Pooled Fund Study.

Surface Transportation Block Grant Program funds (CSJs 0902-00-275 and 0902-00-215), Congestion Mitigation and Air Quality Improvement Program funds (CSJ 0902-00-215), Texas Department of Transportation funds, and Regional Transportation Council Local funds were utilized to support work activities. This project is ongoing and work will continue in FY2023.

Traffic Incident Management Training

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023, providing training for agencies responsible for managing and clearing traffic incidents. This training has been demonstrated to improve responder and motorist safety, and to significantly reduce the length and size of roadway closures. The Dallas-Fort Worth area was the first area in the nation to formalize the training process to reach out to all responders and generate improvements in the management of traffic incidents. The goal of NCTCOG Traffic Incident Management (TIM) training is to initiate a common, coordinated response to traffic incidents that will build partnerships, enhance safety for emergency personnel, reduce upstream traffic accidents, improve the efficiency of the transportation system, and improve air quality in the Dallas-Fort Worth region. By implementing best practices techniques throughout the region, clearance times can be reduced by as much as 40 percent. Such an improvement will reduce the impact of congestion, improve regional air quality, and improve the safety and efficiency of travel for all residents and visitors in the area. Surface Transportation Block Grant Program funds, Congestion Mitigation and Air Quality Improvement Program funds, Texas Department of Transportation funds, Regional

Transportation Council Local funds, local funds, and Transportation Development Credits support this program. Consultant services may be utilized. Anticipated products include:

- Program management and oversight for the TIM Training Program;
- Implementation of TIM First Responder and Manager Courses and TIM Executive Level Courses;
- Quick Clearance Crash Reconstruction Training workshops;
- Annual TIM Self-Assessment, performance tracking, and coordination activities;
- Incident Management Equipment Purchase Call for Projects oversight activities;
- Commercial Vehicle Enforcement (CVE) Working Group, and CVE equipment and training initiative oversight;
- Support of general training, educational projects, and initiatives that promote the implementation of strategies that mitigate traffic and/or CVE incidents; and
- Staging of wreckers and other ancillary services for incident clearance and operational improvements.

Work Performed and Status: NCTCOG hosted six Traffic Incident Management (TIM) First Responder and Manager training classes and two TIM Executive Level classes, with a combined total of 251 students attending. Staff reviewed and processed per-class invoices and performance reports, and maintained and updated course material. Staff developed a Request for Qualifications (RFQ) process to streamline the onboarding process for bringing new TIM instructors to the program and issued the first RFQ in the spring 2022. TIM class registration information was collected, and website updates were made to accurately track agency attendance. Staff conducted the 2022 TIM Self-Assessment in partnership with the Federal Highway Administration to evaluate regional performance relating to traffic incident management. Accordingly, staff developed an online survey process to collect feedback from regional partners to get a full regional picture of Traffic Incident Management.

Staff continued oversight activities related to the 2020 Incident Management Equipment Purchase Call for Projects (CFP), including agreement development/amendment/execution activities, invoice review/approval activities, and project monitoring. Staff also continued oversight activities related to the 2021 Incident Management Freeway Blocking Equipment CFP. Staff coordinated and participated in quarterly Dallas TIM Coalition meetings with regional incident management partners (i.e., police, fire, wrecking services, Department of Public Safety, Texas Department of Transportation, Comprehensive Development Agreements private partners, and North Texas Tollway Authority) to discuss major incidents which occurred and to coordinate ways to address local incident management issues. Staff also continued to attend various regional TIM planning-related meetings and coordinate activities for the regional Abandoned Vehicle Working Group, to address the increased frequency and timely removal of abandoned vehicles along regional highways and tollways. Regional incident management performance measures, including incident response and clearance times, were requested and collected when available. Staff monitored the use of the portable scales distributed to 15 commercial vehicle enforcement (CVE) agencies across the region. Wrecker services were staged along the SH121 corridor as part of TxDOT's peak-period shoulder lane.

Congestion Mitigation and Air Quality Improvement Program funds (CSJ 0918-00-231 and 0918-00-258), Regional Transportation Council Local funds, local funds, and Transportation Development Credits were utilized to support these work activities. This project is ongoing and work will continue in FY2023.

Mobility Assistance Patrol Program (MAPP) Administration

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023, and aids stalled or stranded motorists by helping them to move disabled vehicles from the main lanes of regional limited access facilities and ultimately get the vehicles operating or off the facility completely. This support includes minor mechanical and crash assistance, protection to first responders, and the removal of debris. All assistance is provided free of charge to motorists. The MAPP is an essential element to the region's Traffic Incident Management operations and provides ancillary congestion relief, safety, and air quality benefits.

Mobility assistance patrols are operated by the Dallas County and Tarrant County Sheriffs' offices on congested roadway systems in Dallas and Tarrant counties, and portions of Collin, Denton, and Johnson counties. The North Texas Tollway Authority (NTTA) operates patrols on NTTA toll facilities throughout the region, and private-sector partners operate patrols on the LBJ and North Tarrant Express corridors. Surface Transportation Block Grant Program funds and Transportation Development Credits support this program. Consultant services may be utilized. Anticipated products include:

- Regional program oversight, including active coordination and support activities for Dallas and Tarrant County operations, and NTTA and private-sector partners on managed-lane facilities;
- Performance tracking, budget monitoring, and patrol route evaluation;
- Evaluation of supplemental funding opportunities and innovative technologies; and
- Comprehensive assessment of the current program to ensure that each program is operating equitably and efficiently.

Work Performed and Status: Staff continued to oversee the regional Mobility Assistance Patrol Program (MAPP). Quarterly performance measures and annual struck-by information was collected from the Dallas County and Tarrant County sheriffs' offices, the North Texas Tollway Authority, and the private operators patrolling the North Tarrant Express and LBJ Express managed corridors. Performance measures for each patrol were evaluated and reported in the annual safety performance report. Performance measures were also used in a continued coordination of route expansions for both the Dallas and Tarrant County patrols. A series of ongoing meetings with Dallas and Tarrant County officials, TxDOT staff, and others were held to discuss geographic expansions and shift extensions. Budget assistance was coordinated with the Dallas County and Tarrant County patrols as well. A request for on-board camera equipment for tracking and training was approved for the Tarrant County Patrol.

Surface Transportation Block Grant Program funds (CSJ 0902-90-049) and Transportation Development Credits were utilized to support work activities. This project is ongoing and work will continue in FY2023.

Regional Vanpool Program

Other Funding Sources

This program, designed to reduce single-occupancy commuter trips, is ongoing throughout FY2022 and FY2023 and is an important rideshare program for trip reduction, providing a “shared ride” for commuters traveling long distances or in areas with limited or no fixed-route transit service. The Regional Vanpool Program was operated by Dallas Area Rapid Transit (DART), the Denton County Transportation Authority (DCTA), and Trinity Metro between October 2021 and February 2022, and is currently being operated by DCTA and Trinity Metro for the remainder of FY2022 and FY2023. Activities will include streamlining the program across providers through regional coordination, providing technical assistance to transit partners, monitoring performance measures, reporting trip reduction data, and exploring future program enhancement. Other initiatives include promoting updated vanpool services to the public and conducting a vanpool utilization study to assist with future systems and facilities planning, and for building interagency partnerships with regional partners for the purpose of increasing participation in commuter vanpools. Surface Transportation Block Grant Program funds, Regional Transportation Council Local funds, local funds, and Transportation Development Credits will be utilized for this program. Consultant assistance will be utilized. Anticipated products include:

- Management and oversight of regional vanpool program including operational processes, program budget, invoice activities, agreement development activities, and program assessment activities;
- Coordination meetings with transit partners and stakeholders to maximize regional effectiveness;
- Educational outreach strategies with transit agencies to promote usage among potential riders; and
- Procurement and executed agreements for utilization study.

Work Performed and Status: Regional Vanpool Program activities included the development of an annual work plan; interlocal agreement development; coordination of program budgets; invoice review and payment activities for the Dallas Area Rapid Transit Vanpool Program; and regular communications with vanpool program staff from DART, DCTA, Trinity Metro, and regional private vanpool providers. Meetings with the transit agencies continued to focus on post COVID-19 strategies, clarifying service boundaries, and transitioning DART vanpool riders to other providers, as well as creating a more streamlined Regional Vanpool Program. In March 2022, DART discontinued the DART Vanpool Program when their contractor was unable to acquire the necessary vehicles to operate the program. At the end of FY2022, 240 total vanpools were in operation which contributed to vehicle miles of travel reductions, along with producing savings of volatile organic compound and nitrogen oxide emissions.

Surface Transportation Block Grant Program funds (CSJ 0918-00-343), Regional Transportation Council Local funds, and local funds were utilized to support work activities. Work will continue in FY2023.

Regional Trip Reduction Program

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023 and is designed to reduce single-occupancy vehicle commute trips. The Regional Trip Reduction Program (RTRP) is an educational commute options program aimed at educating large private- and public-sector employers in the region about available Travel Demand Management (TDM) programs and strategies that reduce single-occupancy vehicle trips for work purposes. The strategies promoted under the RTRP include rideshare (carpool and vanpool) programs, telecommuting and flexible work-hour programs, transit programs, walking, bicycling and similar strategies. The Try Parking It website, www.tryparkingit.com, the regional commute tracking, ride-matching, and commuter reward system application is a major component of the RTRP. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized for the Regional Trip Reduction Program. NCTCOG staff will provide management, oversight, and implementation of the program. Consultant assistance will be utilized. Anticipated products include:

- Direct outreach to educate commuters and employers on available TDM strategies and assist employers in establishing and/or strengthening alternate commute programs in the workplace;
- Maintenance and update of the Employer Trip Reduction Manual for Regional Employers;
- Maintenance of the RTRP performance database which includes updating, monitoring, and publication of ridership, VMT reduced, emission reductions performance measures, and a listing of new and existing vanpools in operation by regional transit agencies and private vanpool providers;
- Management and oversight of the Try Parking It Program website and commuter recognition activities;
- Promotion of NCTCOG's Try Parking It website to increase program recognition and usage;
- Collaboration with transit agencies in managing vanpool-related information included in the Try Parking It Program;
- Collaboration with private- and public-sector employers regarding their participation in the regional single-occupancy vehicle trip reduction target initiative;
- Management of the Regional Vanpool Managed Lane Toll Reimbursement Program; and
- Analysis of impacts of travel behavior changes experienced during COVID-19 related restrictions and an assessment of how continued use of alternative commute strategies can assist in reducing congestion and improving air quality.

Work Performed and Status: Staff continued to implement and manage the Employer Trip Reduction Program. Actions included oversight of the Try Parking It website; vendor oversight and coordination to enhance the website; involvement in employer and community outreach events; and promotion of TDM strategies provided to regional employers, commuters, and the public. Staff continued to monitor and track reward and service donations from G.R.E.E.N. (Give. Receive. Expand. Effect. North Texas.) Reward Partners, supported commuters with website-related inquiries, developed and executed event support agreements with Dallas Area Rapid Transit (DART), Denton County Transportation Authority (DCTA), and Trinity Metro. Staff initiated and finalized the development of the Regional Single-Occupancy Vehicle (SOV) Trip Reduction Target Resolution which established an annual target of a 20 percent reduction for SOV trips during peak periods, and initiated the development of the educational One Day A Week Campaign to support the new target. Staff developed, coordinated, and hosted a Bike Month Commuter Challenge and designed a specialized reward redemption campaign on the Try Parting It platform, along with participating in Bike Month events with DART and BikeDFW. Program updates were

drafted and submitted for Progress North Texas, and the 2021 TDM Annual Performance Report was completed. Staff also continued to oversee the regional Vanpool Managed Lanes Reimbursement Program and updated/maintained website content for various TDM-related webpages. The Regional Employer Trip Reduction Guide was redesigned and reprinted.

Surface Transportation Block Grant Program funds (CSJs 0902-00-232, 0902-00-233, 0902-00-234) and Transportation Development Credits supported work activities. This project is ongoing and work will continue in FY2023.

Impacts of COVID-19 on Travel Behavior - Telecommuting after COVID-19 or Is it Business as Usual?

Transportation Planning Funds

University Partnership Program assistance will be used to explore whether the positive impacts of commute pattern changes associated with increased teleworking and telelearning during the COVID-19 pandemic will continue in a post-pandemic work environment. The study will investigate whether employers and educational institutions will continue to utilize teleworking and/or telelearning at the same or increased level or if telework policies will return to their pre-COVID status in a post-pandemic work environment. The study will also investigate if public and/or private employers will adopt new policies regarding teleworking and will track best practices by companies that have implemented telework policies. Anticipated products include:

- Meeting and survey summaries;
- Comment review;
- Technical memorandums; and
- Final report on study findings.

Work Performed and Status: Under the University Partnership Program, this project was initiated to research the impacts of COVID-19 as it relates to telecommuting. The participating university researched various literature regarding the pros and cons of telecommuting and transportation-related impacts, retrieving data from several sources. A report of the found literature was drafted and will be finalized in FY2023. The university created a survey to distribute to businesses to view their participation and usage of teleworking. The survey was provided to local governments, chambers of commerce, and local businesses via QR code, email, and phone. The university will also conduct focus groups using video conferencing.

Transportation Planning Funds were used to support work activities and work will continue in FY2023.

Regional Traffic Signal and Minor Intersection Improvement Program

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023 and targets the improvement of the arterial transportation system, including frontage roads, in the Dallas-Fort Worth region. Efforts will be conducted in conjunction with the Texas Department of Transportation (TxDOT), local governments, independent school districts, and/or private-sector companies to identify corridors or intersections to be included. The corridors or intersections will be selected based on several

factors, including, but not limited to, previously recommended low-cost program improvements; performance measures criteria; high volumes; regional distribution; previously funded and unfunded projects; safety; environmental justice; and local agency needs such as traffic signal software, traffic signal cabinets, traffic signal controllers, battery backup, intersection cameras, detection devices, communications with Traffic Management Center or other intersections, and Global Positioning System clocks. These efforts will generate nitrogen oxide and volatile organic compound emissions reductions to aid in future transportation conformity determinations. Congestion Mitigation and Air Quality Improvement Program funds, Texas Department of Transportation funds, Regional Transportation Council Local funds, other local funds, and Transportation Development Credits support this project. NCTCOG staff will provide oversight of this project and consultant services may be utilized. Anticipated products include:

- Subrecipient agreements for pre-approval and execution;
- Recommendation and implementation of major and minor improvements;
- Traffic signal equipment and other procurements;
- Inventory and review of regional traffic signal system and operation by corridor and individual signal;
- Development of regional traffic signal minimum equipment standard;
- Evaluation of traffic signal performance platforms that are available to measure the performance of the traffic signals regionwide and subsequent procurement;
- Implementation of signal retiming plans, including analysis of baseline and improved conditions;
- Monthly progress meetings with consultants, TxDOT, and local agencies as appropriate;
- Review of corridor reports, project summary reports, consultant invoices, and progress reports; and
- Signal retiming, evaluation and/or reimbursement of tolls for closures during construction and other planned and unplanned events.

Work Performed and Status: Coordination and implementation of the Regional Traffic Signal Program (RTSP) continued, improving timing plans along arterial transportation systems and frontage roads. The program includes a regional inventory of traffic signal equipment, development of a minimum equipment standard, procurement of the platform, recommendation and implementation of low-cost capital improvements, implementation of signal retiming plans for arterials and frontage roads, and a subsequent improvement analysis to compare before and after conditions.

Staff provided oversight of consultant work, quantified air quality benefits, integrated collected data, and coordinated with local agencies. Consultants submitted final reports for 20 completed corridors. A regional inventory of traffic signal equipment was conducted, and a minimum equipment standard was developed. The existing conditions were compared to the minimum standards for a high-level cost estimate to achieve the minimum standard. The regional traffic signal inventory and the Request for Information (RFI) for a traffic signal data platform with a Performance Measures dashboard was completed. Efforts began to develop functional requirements for the Request for Proposals (RFP) procurement of the platform and dashboard that will be used to evaluate corridor and signal performance for identifying future improvements. Coordination meetings were held with TxDOT and consultants monthly.

Staff continued oversight for the Minor Intersection Improvements Program (MIIP), which targets low-cost improvements to corridors for enhanced mobility and improved air quality. Five partner agencies completed their projects, and two agencies are still implementing their projects.

Congestion Mitigation and Air Quality Improvement Program funds (CSJs 0918-00-252, 0902-00-217, 0902-90-054, 0902-00-172, and 0902-00-256), Texas Department of Transportation funds, local funds, and Transportation Development Credits were utilized to support work activities. This project is ongoing and work will continue in FY2023.

Incident Management Signage and Striping Project

Other Funding Sources

NCTCOG staff will continue to inventory regional signage for limited-access facilities within the 12-county Metropolitan Planning Area. Signage locations will be documented in which inaccurate, poorly located, or otherwise incorrect conditions exist that may contribute to congestion or unsafe traffic operations. These locations will be provided to TxDOT and recommended for replacement. Facilities under construction will be omitted from the inventory. This program uses Regional Toll Revenue funds. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Video footage of all limited-access facilities;
- Evaluation of video that will result in a documented inventory containing areas of incorrect or unclear signage;
- GIS-based maps identifying problem locations; and
- Coordination with local TxDOT districts to present project findings.

Work Performed and Status: Filming continued on the region's limited access roadways, with an emphasis on toll-related signage. Signage locations that were flagged as unclear or otherwise deficient were documented and mapped. Staff met with local TxDOT districts and other regional partners to present and discuss project findings.

Regional Toll Revenue funds were used to support work activities. This project is ongoing and work will continue in FY2023.

5.06 Regional Freight Planning

This Work Program subtask includes activities related to the movement of goods in the Dallas-Fort Worth region, both on the regional roadway network and rail system.

Regional Goods Movement

Other Funding Sources

This subtask is ongoing throughout FY2022 and FY2023, assessing the impact of truck traffic, rail freight, and other freight movement issues within and through the Dallas-Fort Worth region. Activities will be conducted based on truck, rail, and air cargo movements throughout the region in support of city, county, State, and federal agencies. Coordination between private-sector stakeholders and public-sector staff will be initiated through multiple initiatives and meetings. This element also includes the collection and analysis of data pertaining to freight mobility and safety. These activities will include continued coordination with private-sector partners in the trucking, rail, and freight-forwarding businesses. A study of Region-to-State Connectivity and Emergency

Logistics Planning includes developing and executing an analysis of several statewide freight issues that affect the Dallas-Fort Worth region, including freight flows in and out of the region and the State. In FY2020, NCTCOG was chosen for an award by the United States Department of Transportation (USDOT) under the Better Utilizing Investments to Leverage Development (BUILD) Discretionary Grant Program for the North Texas Multimodal Operations Velocity Efficiency and Safety (NT MOVES) Program. The NT MOVES Program seeks to improve freight and passenger mobility in the Dallas-Fort Worth region through strategic investment in rail capacity to improve multimodal transportation. It is anticipated that a portion of these funds will be used in FY2023 to support rail project improvements. NCTCOG staff will oversee project management of the NT MOVES/BUILD grant rail project improvements once initiated and will also oversee other freight rail initiatives. Consultant assistance may be utilized. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized for planning and management work activities. USDOT BUILD Grant funds may be utilized for project oversight and management once project implementation begins. Anticipated products include:

- Monitoring of truck-lane restriction corridor conditions;
- Various reports and studies regarding freight conditions in the Dallas-Fort Worth region, including a Truck Bottleneck Analysis, Region-to-State Connectivity and Emergency Logistics Planning Study, and a Regional Rail Pathing Study;
- Recommended follow-up studies identified in Freight North Texas: The North Central Texas Regional Freight System Inventory, including a Land-Use Compatibility Analysis and a Data Collection Program which could include traffic counts, classification counts, and surveys for the Regional Freight Model;
- Regional Freight Advisory Committee meetings;
- Regional Transportation Council Intermodal/Multimodal/High-Speed Rail/Freight Subcommittee meetings, as needed;
- Support to the US Department of Transportation, Federal Highway Administration, and Texas Department of Transportation for various projects as needed;
- Region-to-state connectivity and emergency logistics planning;
- Freight Mobility Plan;
- Corridor studies;
- Roadway/rail crossing assessments;
- Program management of the NT MOVES/BUILD grant projects;
- Public outreach and educational programs; and
- Technical assistance to the City of Dallas for its Freight Master Plan.

Work Performed and Status: Working in collaboration with freight industry professionals and public-sector representatives, NCTCOG staff conducted Regional Freight Advisory Committee (RFAC) meetings in November 2021 and May 2022. Staff participated in the Texas Freight Advisory Committee meetings held in November 2021, February 2022, April 2022, and September 2022 hosted by the Texas Department of Transportation (TxDOT). NCTCOG also hosted multiple regional rail stakeholder meetings to continue ongoing coordination with regional rail agencies. Monitoring of Truck Lane Restriction corridors was an ongoing initiative in FY2022. Construction status on highways with Truck Lane Restrictions was evaluated to identify if restrictions/signage could be put in place. Work continued on Freight North Texas (FNT) recommended follow-up studies with the land-use analysis. The analysis was completed, and the resulting policy tool kit will be incorporated into the Regional Freight Mobility Plan in the future. Work continued and a draft was completed of the new FNT, the new regional freight plan, including data collection, the region-to-state connectivity study, and development and writing of the plan. The FM 429 realignment project continued to move forward. Staff is currently working with the Union Pacific Railroad (UPRR) and the Texas Department of Transportation (TxDOT) on

the design for the realignment and funding. Various corridor studies were completed, including Cold Springs Road and the Lancaster Truck Route review. Staff began work on the truck routing study, including collecting information on all the current truck routes in the region. NCTCOG was awarded \$25 million for its BUILD grant submission in FY2020. Work on this included coordinating with FTA to execute both the project grant agreement and the Transit Award Management System (TrAMS) agreement, and working with the selected consultant to develop the project work scope and contract. In addition, work continued with regional rail partners, and working with TxDOT on highway projects that affect the double track projects. Other work included development of the freight section of the Mobility 2045 Update.

Surface Transportation Block Grant Program funds (CSJs 0902-00-271, 0902-00-272 and 0902-90-101) and Transportation Development Credits were utilized to support work activities. Work is ongoing and will continue in FY2023.

Regional Rail Information System

Other Funding Sources

Ongoing throughout FY2022 and FY2023, this element includes planning and implementation activities related to the development and implementation of Regional Rail Information System (RRIS) technology in the North Central Texas region to monitor and forecast train traffic conditions for both freight and passenger operations. With the development and implementation of RRIS technology, NCTCOG seeks to remediate railroad congestion and delay in the Dallas-Fort Worth region on the basis of current operation and projected rail traffic growth. In FY2020, NCTCOG was chosen for an award by the United States Department of Transportation (USDOT) under the Better Utilizing Investments to Leverage Development (BUILD) Discretionary Grant Program for the North Texas Multimodal Operations Velocity Efficiency and Safety (NT MOVES) Program. The NT MOVES Program seeks to improve freight and passenger mobility in the Dallas-Fort Worth region through strategic investment in rail capacity to improve multimodal transportation. A portion of these funds will be used to support initiation of the RRIS technology. USDOT BUILD grant funds, Surface Transportation Block Grant Program funds matched with Transportation Development Credits, Regional Transportation Council Local funds, and local funds will support work activities. Anticipated products include:

- Development and initiation of a Regional Railroad Information System in the Dallas-Fort Worth region.

Work Performed and Status: Work on this project will begin in FY2023.

Engineering for Passenger Rail/Roadway Interfaces

Other Funding Sources

This element is ongoing throughout FY2022 and FY2023 and includes the establishment of agreements with freight and passenger railroads for engineering of rail projects and rail/roadway projects, allowing for streamlined design and review of design plans for regionally significant transportation projects. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized for work activities. Anticipated products include:

- Agreements with participating railroads; and
- Review of various rail/roadway projects.

Work Performed and Status: Work on this project will begin in FY2023.

5.07 Transportation System Security and Emergency Preparedness

Transportation Planning Funds

This program is ongoing throughout FY2022 and FY2023, supporting ongoing local, State, and federal initiatives to address transportation system security and emergency preparedness planning. NCTCOG continues a dialogue among local governments and transportation providers in North Central Texas regarding the regional coordination of response plans, response capabilities, and emergency medical services in the event of a major incident. Staff also provides technical transportation data needed to support these planning efforts, as well as to facilitate the coordination of various transportation providers and planning agencies.

NCTCOG's Transportation Department will continue to support the Emergency Preparedness Department in developing/enhancing regional emergency preparedness capacity as it relates to utilization of Intelligent Transportation Systems or transportation management tools and infrastructure protection by developing a framework for response and contingency planning due to the unexpected loss or intentional removal of roadway capacity. Scenario modeling may identify the impact to parallel or complementary routes for strategic corridors in the region to help determine potential temporary or interim traffic management solutions. Anticipated products include:

- Support and assistance to agency and regional partners, including monitoring of activities, promotion of regional coordination, and committee meetings;
- Interaction and cooperation between emergency responders and transportation staff;
- Technical transportation data, performance analyses, and planning services related to transportation security;
- Infrastructure protection measures (identifying regional transportation assets, including recommending vulnerability analyses on regional facilities and services); and
- Transportation resource support for mass evacuation events.

Work Performed and Status: In collaboration with NCTCOG's Emergency Preparedness Department, staff continued to provide support to national, State, and local initiatives directed to support the region's transportation system security. Support and technical transportation data were provided upon request. Local and state agencies were encouraged to develop internal approaches to identify and protect transportation infrastructure through funding and cost-reduction opportunities.

Additionally, staff coordinated with the Emergency Preparedness Department and regional partner agencies regarding critical infrastructure and security precautions. Staff participated in public safety initiatives, including coordination for TxDOT video feed sharing with NCT911 and other local agencies. Staff participated in discussions among transportation, law enforcement and other agencies.

Transportation staff attended working group meetings associated with the Public Works Emergency Response Team (PWERT) to share transportation-related information and insight.

Participation included coordination of potential sharing of Portable Changeable Message Signs (PCMS) to optimize the use of publicly owned equipment for incident and event management. Fiber protection and copper theft prevention goals have been achieved; therefore, related transportation security elements were deleted from the Mobility 2045 Policy Bundles. Transportation resource support for mass evacuation events is outlined in the Mobility 2045 Update.

Transportation Planning Funds were utilized to support work activities. This project is ongoing and work will continue in FY2023.

5.08 Roadway and Railroad Safety

This subtask is ongoing throughout FY2022 and FY2023, supporting planning efforts to develop safety policies, programs, and projects.

Transportation Safety Planning

Transportation Planning Funds

Staff coordinates with the Regional Safety Advisory Committee, the Texas Department of Transportation (TxDOT), Texas Department of Public Safety, Federal Highway Administration, local governments, and other partners to develop strategies for regional safety planning efforts, data collection, and analysis. These partners also assist in developing policies, programs, and projects to improve safety related to the transportation system. Anticipated products include:

- Collection, processing, maintenance, and analysis of regional safety data, including crash data from TxDOT's Crash Records Information System, fatality data from the National Highway Traffic Safety Administration's Fatality Analysis Reporting System, and hazardous material spill data from the National Response Center;
- Regional Safety Information System implementation and assessment activities;
- Monitoring and promotion of the implementation of regional intersection improvements outlined in NCTCOG's Intersection Safety Implementation Plan (ISIP) and the Texas ISIP;
- Regional and federal safety performance measure tracking and reporting activities;
- Safety-related education and training courses for member agencies, which may include, but not be limited to, Vision Zero Plan Development, Highway Safety Manual, Employer Traffic Safety Program, National Highway Traffic Safety Administration courses, and National Safety Council training courses;
- Coordination of regional Wrong-Way Driving Mitigation Program and mitigation strategies; and
- Coordination efforts for the Regional Safety Advisory Committee.

Work Performed and Status: Crash data from TxDOT's Crash Records Information Systems (CRIS) database was collected and analyzed for the 12-county region for 2017-2021. Along with National Highway Traffic Safety Administration Fatality Analysis Reporting System (FARS) data, staff used CRIS data to establish federally mandated safety performance targets at the MPO level. Staff utilized CRIS crash data to complete data requests for internal staff projects and grant proposals, and to analyze crash trends and hotspots. Staff completed several analyses included in an annual safety performance report such as contributing factor analysis for serious injury and fatal crashes on limited access facilities, impaired driving crashes, wrong-way driving crashes,

and crashes involving motorcycles. Staff also calculated crash rates for the 12-county Metropolitan Planning Area along limited access facilities. Hazardous material incidents were tracked and reported using data available from the National Response Center. Low-cost systemic intersection improvements, including those concerning wrong-way driving countermeasures, were tracked in the TxDOT Dallas and Fort Worth districts.

Work on a before-and-after study of intersections included in the Intersection Safety Implementation Plan continued. Regional safety-related programs and projects were published in the annual Regional Safety Performance Report. Additional safety statistics were included in a supplemental Regional Crash Fact Sheet. Four Regional Safety Advisory Committee meetings were held, and staff also participated in emphasis area team meetings for the 2022-2027 Texas Strategic Highway Safety Plan. Staff updated content for the Mobility 2045 Update and the MTP Policy Bundle survey. Staff also participated in various local Vision Zero Plan development committees and meetings being initiated by partner agencies.

Transportation Planning Funds were used to support work activities. This project is ongoing and work will continue in FY2023.

Other Funding Sources

Surface Transportation Block Grant Program funds, local funds, Transportation Development Credits, and grants will also be utilized to support this program. Anticipated products include:

- Regional Safety Information System application tool;
- Development and implementation of driver safety public education, outreach, and information programs, including a contributing factor public education campaign and development of a Drive Aware North Texas website;
- Regional roadway safety strategic plan development activities; and
- Systemic safety improvement funding program activities.

Work Performed and Status: Staff initiated a Request for Proposals for a cloud-based predictive crash analysis tool in FY2021 that could identify crash risk along roadway segments and at intersections and suggest appropriate safety countermeasures; some consultant selection related activities continued in early FY2022. The procurement was ultimately canceled in early FY 2022 with plans to re-release the RFP in FY2023 and procure the tool in FY2024.

The Drive Aware North Texas website, a regional driver safety outreach website and outreach campaign to positively influence negative driver behaviors was launched. The website includes regional crash statistics on dangerous driving behaviors and includes helpful tips to prevent these behaviors and other resources. A Drive Aware North Texas outreach campaign primarily targeting young male drivers about the dangers of speeding ran for several months on multiple websites and social media. Staff completed a draft of the regional Roadway Safety Plan. Work on this plan included the analysis of fatal and serious injuries by time of day; location; demographics; national, state, and regional trends; crash types, and several other variables. The plan also considers environmental justice factors and identifies roadways with a particularly high history of fatal and serious injuries. The plan will be used to provide a framework to not only identify problems, but analyze solutions, and prioritize safety improvements within the NCTCOG region and will serve as a guide for the implementation of future systemic safety projects and programs to work towards a goal of zero fatalities on our regional roadways by 2050. Multiple peer reviews were held to solicit feedback about the Roadway Safety Plan, and staff regularly presented plan updates to

the RSAC. Wrong-way driving crashes were investigated based on crash location and time of day and preventative countermeasures have been completed at identified high-risk intersections by the Texas Department of Transportation.

Surface Transportation Block Grant Program funds (CSJs 0902-00-248 and 0902-00-250), local funds, and Transportation Development Credits, were used to support these work activities. This project is ongoing and work will continue in FY2023.

Railroad Crossing Coordination

Other Funding Sources

This element is ongoing throughout FY2022 and FY2023 and includes the identification, planning, and implementation of rail crossing projects throughout the Dallas-Fort Worth region. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support this project. Anticipated products include:

- Maintenance of the regional railroad banking program;
- Coordination with local, State, and federal agencies for review of potential rail crossing projects;
- Regional rail crossing assessments;
- Analysis of rail safety data to identify target areas for educational efforts;
- Public outreach and education efforts in the region; and
- Enhanced regional partnerships.

Work Performed and Status: Railroad crossing safety work plans were continued for specific study areas, including the Fort Worth, North Fort Worth, Prairie Creek, Joppa, Ennis, West Dallas Gateway, and Haslett crossings. Work efforts continued in FY2022 for the Fort Worth Crossing Analysis. This included site visits to each of the at-grade crossings in the city and developing a formula to evaluate the crossings. To increase regional crossing safety partnerships, staff collaborated with regional railroad agencies and the cities of Justin, Terrell, Haslett, Ennis, Dallas, Arlington, and Fort Worth. In addition, staff continued to work with Northwest ISD and local politicians on crossing issues in the North Fort Worth area. Staff submitted a competitive grant application for the Rail Crossing Elimination Grant. The submitted project was for the Prairie Creek Road at-grade crossing. Staff continued the maintenance of the regional railroad banking program, which included working with both cities and railroads on various at-grade crossing issues.

Surface Transportation Block Grant Program funds (CSJ 0902-90-101) and Transportation Development Credits were utilized to support work activities. Work will continue in FY2023.

5.09 Regional Aviation Planning and Education

This Work Program subtask includes planning for the regional aviation system and linkages to surface transportation assets within the region. The safe integration of Unmanned Aircraft Systems into the Dallas-Fort Worth region, in addition to public outreach, to help expand and enhance aviation and aerospace education and career skills are also included.

Surface Access to Aviation

Transportation Planning Funds

This element is ongoing throughout FY2022 and FY2023. Work includes data collection and planning efforts to access infrastructure to aviation facilities and associated improvement needs. This item includes a review of travel-time contours, air cargo trends and connectivity, and land-use implications surrounding aviation facilities. This project also includes reporting to the Regional Transportation Council and the Air Transportation Advisory Committee, and input into the Metropolitan Transportation Plan (MTP) and other transportation planning activities. Anticipated products include:

- Inventory and data collection of aviation needs;
- Analysis and recommendations for infrastructure improvements affecting aviation;
- Travel-time contours for aviation facilities;
- Inventory of surface transportation access to aviation facilities; and
- Monitoring and assessment of Metropolitan Transportation Plan Policy Bundles survey and other planning activities for aviation-related components.

Work Performed and Status: In FY2022, staff collected data and continued to maintain an inventory of surface access improvements to aviation facilities within the region. Staff collected air cargo and commercial aviation data to monitor demand trends that could affect surface access to aviation facilities. Staff also updated content for the Mobility 2045 Update and to MTP Policy Bundle survey questions.

Transportation Planning Funds were used to support work activities. Work will be ongoing in FY2023.

Urban Air Mobility and Advanced Air Mobility Integration

Transportation Planning Funds

This element includes the continued work in FY2022 and FY2023 around Urban Air Mobility (UAM) and Advanced Air Mobility (AAM) integration into the traditional transportation planning process. Urban Air Mobility envisions a safe and efficient aviation transportation system that will use highly automated aircraft that will operate and transport passengers or cargo at lower altitudes than traditional aircraft within urban and suburban areas to complement and relieve congestion on the existing surface transportation system. The main program for this effort is the North Texas Unmanned Aircraft System (UAS) Safety and Integration Initiative, including the UAS Safety and Integration Task Force and Working Groups. UAM will be comprised of an ecosystem that considers the evolution and safety of the aircraft, the framework for operation, access to airspace, infrastructure development, and community engagement. Advanced Air Mobility builds upon the UAM concept by incorporating use cases not specific to operations in urban environments such as commercial intercity (longer range/thin haul), cargo delivery, public services, private/recreational vehicles, emergency medical response, and infrastructure monitoring and inspection. Anticipated products include:

- Coordination of the North Texas UAS Safety and Integration Task Force and Working Groups;
- Establishment of Routine Beyond Visual Line of Sight (BVLOS) operations in the region;

- Scaling of the Arlington Entertainment District UAS Integration Pilot Program to other sites in the region;
- Planning for the integration between Advanced Air Mobility and intermodal transportation hubs within the region;
- Determination of synergies between Advanced Air Mobility integration and the Automated Vehicle integration initiatives around the region;
- Planning of air taxi and air cargo/package corridors or procedures between Dallas Fort Worth International Airport and partner cities;
- Planning for the integration of North Texas airports into the air taxi network for inter and intracity travel; and
- Development of a best practice document for public outreach, engagement, and education strategy.

Work Performed and Status: Staff collaborated and coordinated with numerous stakeholders to continue work on the safe integration of unmanned aircraft systems (UAS) into the region's airspace, including, but not limited to, the planning activities associated with the UAS Safety and Integration Task Force. Ten Unmanned Aircraft System Safety and Integration Task Force meetings were completed. Also, in FY2022, staff was successful in executing NCTCOG's obligation with NASA for planning assistance in accelerating the integration of Vertical Mobility into North Texas. Staff coordinated with the City of Arlington on the Entertainment District UAS Integration Pilot Program and is working to determine applicability of the Program to other sites within the region.

Transportation Planning Funds were used to support work activities. Work will be ongoing in FY2023.

Aviation Education Integration and Outreach

Other Funding Sources

This element is ongoing throughout FY2022 and FY2023 and describes implementation and outreach efforts associated with recommendations from the North Texas Aviation Education Initiative Study completed in 2010. Facilitation for development of regional aviation programs, as well as a variety of outreach strategies to local students, will be conducted. These efforts are funded through a combination of grants, Regional Transportation Council Local funds, and industry partnerships. Anticipated products include:

- Participation in aviation advisory committees, school career days, and other outreach opportunities;
- Continued development of a Speakers Bureau;
- Enhancement of the aviation careers-based mentorship program;
- Enhancements to NCTaviationcareers.com;
- Program curriculum development and facilitation;
- Regional workshops with educators, industry stakeholders, and policy officials; and
- Continued promotion of the aviation education gaming app, FLYBY.

Work Performed and Status: In FY2022, staff conducted 10 Know Before You Fly workshops with consultant assistance. Work continued with Career and Technology Education (CTE) programs within Independent School Districts to promote aviation education. Staff continued speaking engagements, presentations, and other outreach events, including the Tarrant County

Community College Advisory Committee, the Arise Planning Committee, Bell Aerial Robotics Advisory Committee, Fort Worth Drone Advisory Committee, the NCTX Aerial Robotics Leadership Committee, Fort Worth ISD UAS Workforce Steering Group, the Irving ISD Aviation Advisory Board, Crowley ISD CTE Advisory Board, and the Midlothian ISD Advisory Board. Staff also continued the annual presentation at the Urban Land Institute's Center for Leadership Transportation Technology Panel. The aviation careers website was updated with relevant events and content, and to ensure accuracy as needed. Staff also continued to promote the aviation education gaming app, FLYBY. Updates to the app will begin in FY2023 to make the app eligible for restoration on the App Store.

Regional Transportation Council Local funds were used to support work activities. Work will continue in FY2023.

Regional Aviation System Planning

Other Funding Sources

This element is ongoing throughout FY2022 and FY2023 and includes continuous system planning efforts and implementation of the Regional General Aviation and Heliport System Plan. Ongoing technical assistance to local governments and stakeholders for development recommendations and preservation of the North Central Texas regional aviation system is provided. Coordination with State and federal governments and aviation stakeholders will be completed to provide input to the National Plan of Integrated Airport Systems, the Texas Airport System Plan, and North Central Texas Council of Governments' documents (such as the Metropolitan Transportation Plan). Airport system evaluation may include demand forecasting and capacity assessments. Consultant services may be utilized. This project is funded through Regional Transportation Council Local funds. Anticipated products include:

- Air Transportation Advisory Committee meetings;
- Stakeholder meetings and associated outreach materials;
- Continued implementation of the Regional General Aviation and Heliport System Plan;
- Aviation system performance measures;
- Collection of geospatial data related to airport infrastructure;
- Geographical Information System (GIS) web interface;
- Monitoring of compatible development surrounding airports, including obstructions;
- Aviation environmental planning tools such as noise modeling and wildlife tracking; and
- Monitoring, coordination, and evaluation of the impacts of unmanned aircraft systems (UAS) on the regional aviation system.

Work Performed and Status: In FY2022, staff hosted four quarterly Air Transportation Advisory Committee (ATAC) meetings to include briefings for elected officials at the local, State, and federal levels. Regional aviation funding was monitored, tracked, and presented at each meeting. Presentations included airport updates on airport improvements, planning and programming updates from the Federal Aviation Administration and TxDOT Aviation, and other general aviation-related topics. Sharing among airports fostered more communication and collaboration among committee members. Staff also submitted a proposal to the Federal Aviation Administration for a new regional aviation system plan, but the application was not selected for funding. Staff will submit again in FY2023.

Regional Transportation Council Local funds were used to support work activities. Work will continue in FY2023.

5.10 Regional Military and Community Coordination

This Work Program subtask includes the planning and implementation of programs to support regional military and community coordination.

Naval Air Station Joint Reserve Base Fort Worth Land Use and Community Outreach Implementation

Other Funding Sources

Following a 2008 study funded through the Department of Defense Office of Local Defense Community Cooperation (DOD OLDCC) that focused on compatible development near military installations, the Naval Air Station Joint Reserve Base (NAS JRB), Fort Worth Regional Coordination Committee (RCC) was formed. Participating local governments include, but are not limited to, Tarrant County and the cities of Benbrook, Fort Worth, Lake Worth, River Oaks, Sansom Park, Westworth Village, and White Settlement. The interjurisdictional partnership is based on the identification of actions that can be taken jointly by the community and the installation to promote compatible development and address current and future encroachment as identified through the Joint Land Use Study. The RCC created a development review Web tool for communities to discuss proposed developments near NAS JRB Fort Worth. This element is ongoing throughout FY2022 and FY2023. Regional Transportation Council Local funds and other local funds will be utilized to support activities in this area. Anticipated products include:

- Community outreach meetings;
- Tracking of bills proposed in the State legislature;
- Regional Coordination Committee (RCC) development review web tool project inventory and comments;
- At least four RCC meetings and RCC Officer coordination; and
- Documentation and presentation material for forums, workshops, and meetings.

Work Performed and Status: Administration of the NAS JRB Fort Worth Regional Coordination Committee (also known as the Regional Coordination Committee or RCC) during FY2022 included conducting four quarterly committee meetings and four officer meetings. Committee efforts were supported by providing legislative updates related to compatible development and communication to residents affected by military operations and unmanned aircraft vehicles as detailed in the RCC Legislative Program for the 88th Texas Legislature. Other support included preparing presentations, providing updates on transportation projects near the base, drafting correspondence, maintaining the RCC Development Review Web Tool, revising bylaws, implementing the new bylaws related to new city/county resolutions of support and non-voting member review, and assisting the NAS JRB Fort Worth Commanding Officer.

Regional Transportation Council Local funds were used to support work activities. This project is ongoing and work will continue in FY2023.

Regional Military Compatible Use Implementation

Other Funding Sources

The Department of Defense Office of Local Defense Community Cooperation (DOD OLDCC) funds implementation of recommendations from planning studies to maintain military operations and support compatible development surrounding military installations. The North Central Texas Council of Governments (NCTCOG) recently completed a Regional Joint Land Use Study (JLUS), now known as a Compatible Use Study, that contained over 150 recommendations. The Regional Military Compatible Use Implementation will involve work with federal and State military installations, the Texas Military Department, local governments, and the business community to implement the study recommendations. This element is ongoing throughout FY2022 and FY2023. Department of Defense funds and Regional Transportation Council Local funds will be used for this project. Anticipated products include:

- Active parcel compatibility management tool and analysis of parcel data for changes in compatibility;
- Inventory of compatibility actions taken since initial 2008 JLUS;
- Homeowner relations program to inform new residents about quality-of-life issues near military installations and identify resources related to sound attenuation, including a regional noise reporting clearinghouse, homebuilder certifications, documentation of sound attenuation, and a sound attenuation incentive program;
- Updates to local government zoning ordinances, future land-use plans, building codes, and Statewide local government codes to increase compatibility near military installations, and participation in local government planning studies near military installations;
- Improved and formal communications channels for Texas Military Department installations;
- Economic development and transportation projects near Texas Military Department installations;
- Efforts to protect military installations from encroachment by unmanned aircraft systems (UAS);
- Information exchanges between both military installations and local governments within the region and between communities across Texas that participate in the Department of Defense Compatible Use Program; and
- Grant management requirements.

Work Performed and Status: Work continued on the active parcel management tool, including finalizing the set of data needs that will be pulled into a mapping platform, as well as a user interface for the mapping platform.

The contents and design for the Welcome Packet were refined following a presentation of the draft materials to a committee of city administrators. Through presentations made by the cities of Benbrook and Fort Worth to a committee of city administrators on enforcement of building codes, a determination was made that any development in those cities started following enactment of the building codes and is deemed to have met the building standards and be compatible for noise. A review was completed of the Federal Aviation Administration (FAA) Sound Insulation Program, which is expected to be similar to a Department of Defense (DOD) program that will provide funding for sound insulation work inside homes, schools, and religious institutions in the coming months. This information, including questions for local governments to consider when determining whether to apply for the DOD program, was presented to a committee of city administrators. A map was created that shows potentially eligible parcels broken out by the noise contours and by city to better understand the magnitude of the potential program in the region.

A review was completed of zoning ordinances in the cities surrounding NAS JRB Fort Worth to match allowed land uses with compatible land uses in noise contours and safety zones. The combined areas were mapped to show existing land use, zoning districts, and compatibility of parcels within each combined area. Recommendations were developed for each city to amend its zoning ordinance to increase compatibility. In addition, an update to the RCC Development Review Tool was completed. This work includes migrating to a new platform with better functionality to local governments.

Monthly meetings were held with Texas Military Department staff to discuss compatible development, transportation, and economic development improvements. Staff participated in meetings regarding the Hensley Field planning study, which would impact several installations in the region.

A transportation project status tracking tool was maintained as a clearinghouse for details on projects near NAS JRB Fort Worth.

A project contact list was established for each military installation and surrounding community, as well as for regionwide interested parties. Four meetings were held with other entities in Texas involved in compatible use planning.

Regional Transportation Council Local dollars were utilized to support acquisition of a commercial property located adjacent to the south end of the runway at NASJRB. This property had long been considered as incompatible with regard to noise and safety considerations given its location. The City of White Settlement acquired the property and agreed to take property management responsibilities.

US Department of Defense funds and Regional Transportation Council Local funds were used to support work activities. This project is ongoing and work will continue in FY2023

Aviation, Aerospace, and Defense Manufacturing Agile Curriculum Program

Other Funding Sources

The Department of Defense Office of Local Defense Community Cooperation (DOD OLDCC) funds work to provide resilience to the aviation, aerospace, and defense manufacturing industrial base. In coordination with partner stakeholders at the regional, industrial, and academic levels, NCTCOG will develop an agile curriculum program that will be guided by a governing body to identify training gaps and develop and deploy courses to students recruited to participate in the program. This element is ongoing throughout FY2022 and FY2023. Regional Transportation Council Local funds and Department of Defense funds will be used for this project. Anticipated products include:

- Framework agreement among the program stakeholders to determine roles and responsibilities;
- Inventory of current training programs related to aviation, aerospace, and defense manufacturing careers;
- Using a compression planning approach, inventory, and prioritization of initial training gaps;
- Evaluation criteria, including performance metrics and a framework for data to be collected and reported;

- Program contact road map maintained with current points of contact for each program stakeholder defining institutional touch points and responsibilities;
- Establishment, and ongoing staff support, of a governing body and technical advisory committees;
- Feedback loop process and tool developed to collect data, report on progress towards outcomes, and identify needed program improvements related to academic implementation, student completion/graduation, career placement, and student career performance, among others;
- Based on prioritized training gaps identified, development of agile curriculum at the appropriate level (enhancement to existing courses, new courses, degree programs, certificates, training for specific employer, etc.) that may be targeted to upskilling existing employees or attracting new applicants;
- Student recruitment strategic plan;
- Student recruitment materials developed and distributed to students at all levels (high school, community college, university, existing workforce) to promote each agile curriculum course, as well as to raise awareness in the community at large about career opportunities in aviation, aerospace, and defense manufacturing industries, including specific focus on underrepresented communities and individuals transitioning from military to civilian careers; and
- Grant management requirements.

Work Performed and Status: The Agile Curriculum Program Committee, a cross-industry advisory group comprised of workforce solutions, post-secondary educational institutions, and aerospace and defense companies, was established to serve as the institutional framework for the program, and this group meets regularly to guide initial project efforts.

A major cost savings to the project came about by working with the defense industry representatives, the workforce board, and academic institutions to utilize the existing Economic Modeling Specialist International (EMSI) proprietary job data sources and software tools already owned and employed by industry. These proprietary data sources and software tools were critical to identifying skill set gaps, career opportunities of greatest need, and priorities for curriculum development subject areas. Relying on the industry to provide the data and complete the analysis, however, required more time than anticipated. Coordinating findings from this initial data collection and analysis task with the Agile Curriculum Program Committee and the DFW Aerospace Consortium was another critical step in obtaining industry guidance and took several months to complete. The completed in-depth analysis is a significant update to the region's 2017 defense industry talent pipeline study and will serve as a strong foundation for the Agile Curriculum Program moving forward.

As a result, a consensus was established to develop curriculums for identified skill set gaps in the defense industry targeting Information Assurance Engineers, Cybersecurity Analysts, and Data Engineers. Staff has inventoried available cybersecurity and data analysts/engineer curriculums at the local colleges and universities that will be used to meet and identify specific training needs for individual defense companies. These curriculums will be the foundation for creating cybersecurity pipeline training courses and apprenticeship programs and will also be utilized in the development of micro-credential training programs to meet emerging and expanding cybersecurity training challenges. Staff is now focused on scheduling coordination meetings with higher educational institutions and defense industry partners to advance curriculum development efforts.

A no-cost one-year extension request to continue work and progress through the end of November 2023 has been submitted to the DOD Office of Local Defense Community Cooperation (OLDCC).

US Department of Defense funds and Regional Transportation Council Local funds were used to support work activities. This project is ongoing and work will continue in FY2023.

Surface Access to Critical Infrastructure

Transportation Planning Funds

This element supports planning activities to help ensure the accessibility of critical infrastructure in North Texas, including military installations and energy, water, and communications facilities. NCTCOG will provide support for community thoroughfare planning, support for feasibility studies by the Texas Department of Transportation and other implementing agencies, and technical assistance to military installations and other critical infrastructure facilities seeking transportation system performance data. This element is ongoing throughout FY2022 and FY2023. This work includes reporting to the Regional Transportation Council and NAS JRB Fort Worth Regional Coordination Committee, as well as input into the Metropolitan Transportation Plan (MTP) and other transportation planning activities. Anticipated products include:

- Inventory and data collection of surface transportation access to military installations and other critical infrastructure;
- Analysis and recommendations for infrastructure improvements affecting military installations and other critical infrastructure; and
- Planning efforts to improve access to military installations and other critical infrastructure.

Work Performed and Status: NCTCOG staff provided planning support to the State Highway (SH) 183 feasibility study, a major north-south corridor with industrial, residential, and commercial developments which serves as the primary roadway access to the NAS JRB Fort Worth. NCTCOG is working with the Texas Department of Transportation (TxDOT) Fort Worth District on its preliminary design for an approximate five-mile section of SH 183 between Interstate Highway (IH) 30 and SH 199, running through the cities of Fort Worth, River Oaks, Westworth Village, and White Settlement.

NCTCOG staff provided planning support to the Cities of Fort Worth and River Oaks on the Meandering Road and LTJG Barnett Road projects which together form a key transportation corridor that serves as a principal route for local commuters and provides critical access to the NAS JRB Fort Worth East Gate from SH 183 and several highways and transportation facilities. The proposed project includes the reconstruction of Meandering Road between Roberts Cut Off Road and LTJG Barnett Road that will result in a more context-sensitive roadway compatible with adjacent land uses and the community character. Both motorized and non-motorized transportation accessibility are critical to NAS JRB Fort Worth operations and sustainability of its regional economic impact.

NCTCOG staff provided planning support to TxDOT and the Cities of Fort Worth and White Settlement in the development of improvements to Las Vegas Trail Boulevard between IH 820 and Quebec Drive, a critical project serving NAS JRB Fort Worth and the Lockheed defense manufacturing complex. This project includes improvements to several highly dangerous intersections and expanding the roadway to four lanes.

NCTCOG staff provided planning support to the SH 199 corridor (from IH 820 to downtown Fort Worth). TxDOT is working with the cities of Lake Worth, Sansom Park, and Fort Worth; Tarrant County, and NCTCOG to improve mobility, operations, and safety, to provide transportation options and to develop safe transportation solutions along SH 199. A corridor master plan study for SH 199 is being developed to advance these visions into a design. The corridor master plan will use context-sensitive solution principles and modern engineering concepts to recommend phased improvements to increase the livability in the corridor, provide transportation options for different users and improve drainage. The plan will study many elements such as landscaping and streetscaping, intersection improvements, water runoff and drainage, economic market analysis, parking, bicycle and pedestrian improvements, public transportation and roadway widening.

Transportation Planning Funds were used to support work activities. This project is ongoing and work will continue in FY2023.

5.11 Transportation Technology and Innovation Program

Activities in Subtask 5.11 will plan for the arrival of automated vehicles, focusing on the implications that automated vehicles may have regarding travel demand, land use, congestion, and transportation data, as well as vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2X) communications. Planning tools, including travel forecasting models, will be forced to adapt in ways that account for the effect upon the roadway system brought about by these technological innovations and transformations. Automated vehicles are no longer discussed solely in the context of automobile passenger travel, but also in the context of freight, transit, and people-mover/shuttle systems. Planning efforts will include coverage of associated technologies such as connected vehicle technologies and emerging technologies, including digital and virtual reality technologies that allow people to engage in life activities without having to travel through physical space.

Automated Vehicles: Planning

Transportation Planning Funds

This program is ongoing throughout FY2022 and FY2023, providing planning for the arrival of automated vehicles and determining the impact of such vehicles on the transportation system. Strategies include analyzing the impact of automated vehicles and monitoring legal development relating to automated vehicles. Anticipated products include:

- Support for existing NCTCOG programs, including transportation planning and modeling;
- Monitoring of automated vehicle laws and policies;
- Maintenance of an information clearinghouse for the region on automated vehicle issues;
- Planning and coordination of pilot programs advancing the deployment of automated vehicles; and
- Liaison on automated vehicle issues with public and private parties.

Work Performed and Status: In FY2022 NCTCOG continued work with automated vehicle (AV) trucking firms to bring automated freight to the region and continued advising partner entities on possible automated vehicle solutions for non-freight mobility problems they have identified, including shared mobility, micro-mobility and automated sidewalk delivery robot use cases.

Transportation Technology and Innovation Program staff presented to 45 groups across the region, State, and country. Audiences varied from local municipalities to chambers of commerce to auto industry groups to national organizations. Topics ranged from local approaches to transportation innovation to understanding macro-level shifts across the entire transportation sector. Public outreach and education, as well as interagency coordination, continues to be an essential task for NCTCOG's Transportation Technology and Innovation Program.

Transportation Technology and Innovation Program staff also continued to provide leadership, guidance, and content to support work done by professional organizations at the regional, State, and national levels. These groups included the Governor's Connected and Automated Vehicles Task Force, Texas Innovation Alliance, Texas Technology Task Force, Association of Metropolitan Planning Organizations, Transportation Research Board, TexITE, ITS-Texas, plus working groups in other public agencies such as the Texas Department of Transportation and Federal Highway Administration.

Transportation Planning Funds were used to support work activities and work will continue in FY2023.

Automated Vehicles: Development and Deployment

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023, providing for the development and deployment of automated vehicles and related technologies. Strategies include building an open data infrastructure to support safe deployment of automated vehicles, encouraging shared mobility transportation models to deliver more mobility to more people in the region more cost-effectively, and exploring the benefit of using automated/driverless vehicles. Consultant assistance may be utilized to support work activities. This program uses Surface Transportation Block Grant Program funds, Texas Department of Transportation funds, and Transportation Development Credits to support activities in this area. Anticipated products include:

- An open data infrastructure for use by automated vehicles;
- Support for shared mobility service delivery models, especially those that increase average vehicle occupancy;
- Development and deployment of automated vehicle technologies in the region;
- Advancement of emerging cellular-V2X, DSRC, and other communications technologies; and
- Liaison to the Smart City/Smart State Program.

Work Performed and Status: Two projects focused on transportation data were launched during FY2022 – Situational Awareness App and Workzone Data Exchange (WZDx). The Situational Awareness App project involved approximately 60 local partners, who utilized a situational awareness app “sandbox” to test the current capabilities and assess the potential of applications that use connected vehicle data to improve roadway maintenance and operations. The WZDx project is an effort to improve the reporting of work zone information from the region in USDOT's WZDx format. Work included conducting a cooperative procurement of three categories of WZDx services under NCTCOG's North TXShare program. The procurement process is nearing completion. Once complete, the cooperative procurement will make these services easily accessible to local and State partners and public agencies from around the country. Already, TxDOT and the New York Department of Transportation have shown interest.

Work continued on the IH 30 portion of the Texas Connected Freight Corridor Program. NCTCOG staff supported TxDOT by coordinating work and communications among local stakeholders on the IH 30 segment between Dallas and Fort Worth. This project is focused on providing dual communications capabilities (Dedicated Short-Range Radio and Cellular 5G) along the IH 30 managed lanes, establishing data sharing between automated trucks and TxDOT, and integrating *WAZE for Cities*' data feed into 911 call centers along the corridor.

Surface Transportation Block Grant Program funds (CSJs 0902-00-214 and 0902-90-100), Texas Department of Transportation funds, and Transportation Development Credits were used to support work activities. Work will continue in FY2023.

Updated Regional Automated Vehicle Program (AV 2.0)

Other Funding Sources

Automated Vehicles 2.0 (AV2.0) consists of three elements: 1) "Planning for Local Partners" (or, AV2.1): Provide planning assistance for public entities that are planning ahead for the deployment of AVs in their communities; 2) "Cost Coverage for Local Partners" (AV2.2): Funding to help public entities cover infrastructure, equipment, safety, public education, and other costs incurred when an AV deployment comes to a community; and 3) "Regional Strategic Investments" (AV2.3): Comprehensive support for AV deployment projects supporting use cases/communities that have not attracted AV developer interest but offer an important opportunity to solve a transportation "pinch-point."

In 2020, NCTCOG procured a consultant to lead the effort in developing a regional planning framework for connected and automated vehicles as part of AV2.1: Planning for Local Partners. This framework may include, but is not limited to, traffic modeling, identifying use cases, policy development, public outreach and education, scenario planning, and land-use planning. The grants linked to AV2.2: Cost Coverage for Local Partners will be accessible by public entities with active or in-development deployments of connected and automated vehicle technology. Eligible costs for reimbursement could include, but are not limited to, local government staff and consultant time, infrastructure upgrades, legal services, public education, safety, and software and technical expertise. AV2.3: Regional Strategic Investments will be selected from proposals on a competitive basis according to selection criteria determined by the Regional Transportation Council. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized. Consultant assistance may be utilized. Anticipated products during FY2022 and FY2023 include:

- Automated transportation planning resources for local partners;
- Reimbursement opportunities for local partners that deploy automated transportation solutions;
- Comprehensive projects that address transportation "pinch-points" in the region that require public intervention; and
- Financial and operational support for local partners hosting an automated vehicle implementation.

Work Performed and Status: Planning efforts related to emerging mobility technologies were conducted during FY2022. These efforts included finalization of a major planning study to help the region plan for automated vehicles and related technologies (to see the project reports, visit: [Home - Connect North Texas Futures \(connectntxfutures.org\)](https://connectntxfutures.org)). This consultant-led work on AV2.1

was completed in 2022; staff-led work will continue throughout 2023 and will focus on regional workshops aimed at familiarizing local partners on the findings and tools that emerged from the project.

Work continued in FY2022 on AV2.2-2.3 projects and will continue throughout 2023. This work includes extensive consultation and staff planning support for local partners working on AV projects and work on AV projects that are being directed by NCTCOG.

These planning efforts are expanding into ways to more effectively utilize transportation assets to provide broadband infrastructure and improved broadband access as a transportation demand management tool and to facilitate improved access to transportation resources.

Surface Transportation Block Grant Program funds (CSJs 0902-00-280, 0902-00-281, 0902-00-282, and 0902-00-283) and Transportation Development Credits were used to support work activities. Work will continue in FY2023 on AV2.2-2.3.

Dallas-Fort Worth Freight Optimization Corridors

Other Funding Sources

During FY2022 and FY2023, this project will use connected vehicle and related technologies to optimize the flow of trucks between freight hubs and expressways in the region. The freight industry has identified this initiative as a top priority. The Value of Time for goods movement approaches \$75 per hour. There are safety, operational, and environmental benefits from reducing the number of truck stops/starts at intersections. This project will focus on intersections with high volumes and proportions of freight traffic. It will use the optimal mix of technologies and data sharing to reduce the number of stops trucks make at signalized intersections. Deployment locations will be selected based on an assessment of potential benefits and costs, and after consultation with the responsible local jurisdictions and freight companies. The project will include continual performance monitoring and adjustment to deliver the maximum net benefits. Consultant assistance will be utilized. Surface Transportation Block Grant Program funds, Regional Transportation Council Local funds, and Transportation Development Credits will be utilized to support project activities. Anticipated products include:

- Completion of before and after studies of focus intersections;
- Coordination meetings with the Texas Department of Transportation, freight industry, and other public agencies responsible for roadways in the focus areas;
- Evaluation, procurement, and implementation of connected vehicle and other technologies; and
- Development of data sharing tools that bridge platforms between public- and private-sector stakeholders.

Work Performed and Status: Work began on the Freight Optimization Corridors project during FY2022 and will continue throughout 2023. The software framework was established and both public agency and private industry project partners are being recruited and oriented as part of the project. The project will become operational in FY2023 at up to 500 intersections and support up to 5,000 freight vehicles simultaneously.

Surface Transportation Block Grant Program funds (CSJ 0902-00-301), Regional Transportation Council Local funds, and Transportation Development Credits were used to support work activities. Work will continue in FY2023.

IH 30 – Dallas/Tarrant County Line to IH 635

Other Funding Sources

In FY2023, NCTCOG will initiate a planning study to review roadway corridor design elements to accommodate automated and electric vehicles, including, but not limited to, dynamic inductive charging technology usable by all vehicles, geometric design for autonomous vehicles and retrofit of new facilities using existing technologies to advance next generation autonomous vehicle implementation. The new section of IH 30 from the Dallas/Tarrant County line to Downtown Dallas will be the candidate location for retrofit technologies. The older section of IH 30 from Downtown Dallas to IH 635 will be the location for new geometric design for autonomous vehicles. It is anticipated that consultant assistance may be utilized to perform a significant portion of the work. Surface Transportation Block Grant Program funds and Texas Department of Transportation funds will be used to support work activities. Anticipated products include:

- Plans, reports, studies, drawings, visualizations, simulations, and other types of planning products.

Work Performed and Status: Work on this project is anticipated to begin in FY2024 following execution of an agreement with the Texas Department of Transportation in FY2023.

IH 30 – IH 35W to Dallas/Tarrant County Line

Other Funding Sources

In FY2023, NCTCOG will initiate a planning study to review roadway corridor design elements to accommodate automated and electric vehicles, including, but not limited to, dynamic inductive charging technology usable by all vehicles, geometric design for autonomous vehicles, and retrofit of new facilities using existing technologies to advance next generation autonomous vehicle implementation. The new section of IH 30 from Cooper Street to the Dallas/Tarrant County line will be the candidate location for retrofit technologies. The older section of IH 30 from Downtown Fort Worth to Cooper Street will be the location for new geometric design for autonomous vehicles. It is anticipated that consultant assistance may be utilized to perform a significant portion of the work. Surface Transportation Block Grant Program funds and Texas Department of Transportation funds will be used to support work activities. Anticipated products include:

- Plans, reports, studies, drawings, visualizations, simulations, and other types of planning products.

Work Performed and Status: Work on this project is anticipated to begin in FY2024 following execution of an agreement with the Texas Department of Transportation in FY2023.

5.12 Red River Navigation System Feasibility Study

Other Funding Sources

During the 86th Texas Legislative Session, Texas legislators approved the conducting of a feasibility study by the Red River Authority of Texas on increasing navigation on the Red River between approximately Texarkana and Denison, Texas. This is a partnership effort between the states of Arkansas, Louisiana, Oklahoma, and Texas. During FY2022 and FY2023, NCTCOG will continue this partnership and participate in the planning process. The extension of the navigable waters could provide the Dallas-Fort Worth region with access to the sea and result in logistics changes for goods movement in the region. The use of the Red River could potentially provide additional freight transport options, divert freight traffic, provide an inexpensive transportation option for bulk freight, provide potential electric power generation, result in possible air quality benefits, and provide an opportunity to partner with the federally recognized tribal nations. Regional Transportation Council Local funds will be utilized to support this initiative. Anticipated products include:

- Financial feasibility study of increasing navigation on the Red River; and
- Presentation to the Regional Transportation Council.

Work Performed and Status: The contract with the US Corps of Engineers was extended to support continuing efforts by the Corps to study Red River navigation costs. NCTCOG staff continued participation in the Project Review Committee. A contact list was developed to promote a survey related to the study.

Regional Transportation Council Local funds were used to support work activities and work will continue in FY2023.

5.13 North Texas Center for Mobility Technologies

Other Funding Sources

The North Central Texas Council of Governments has partnered with the Texas Research Alliance to develop a mobility research center, the North Texas Center for Mobility Technologies (NTCMT), that will bring together North Texas' top mobility research talent to work on sponsored research projects. Regional Transportation Council Local funds will be utilized to launch this initiative, with contributions from university partners as the initiative progresses. The primary functions and anticipated products of the NTCMT during FY2022 and FY2023 include:

- Readymade research and development network of and for mobility-related companies, municipalities, and other public agencies;
- Attraction of industry and academic talent to North Texas;
- Mobility-related research capabilities within North Texas universities;
- Facilitation of communication and collaboration among the universities with respect to research and development projects and the pursuit/execution of grants;
- Facilitation of university-public sector partnerships on mobility-related projects;
- Facilitation of mobility-related internships for workforce enhancement;
- Acting as a catalyst for building similar North Texas area university networks in other industry sectors;

- Research and industry reports, regional assessments, white papers, and scholarly articles focused on mobility innovation topics; and
- Applications for grants and other prospective funding sources.

Work Performed and Status: Several industry-sponsored research projects on mobility technologies at the universities that make up the North Texas Center for Mobility Technologies (NTCMT) were evaluated and approved for funding. More such projects are anticipated in FY2023. There are preliminary discussions underway to add a fifth research university to the NTCMT, which should increase the volume of proposed sponsored research projects.

Regional Transportation Council Local funds were used to support work activities and work will continue in FY2023.

TASK 5.0 – FUNDING SUMMARY

Funding Source	Amount Programmed (2-year)	Authorized (2-year) ¹	Expended (FY2022)	Amount Expended (2-year)	Balance of Programmed (2-year)	% Expended of Programmed (2-year)	Balance of Authorized (2-year)	% Expended of Authorized (2-year)
5.01 - Regional Transportation Studies								
TPF	\$1,376,400	\$616,700	\$669,666	\$669,666	\$706,734	48.7%	(\$52,966)	108.6%
STBG ³	\$15,575,400	\$12,829,455	\$3,434,047	\$3,434,047	\$12,141,353	22.0%	\$9,395,409	26.8%
TXDOT	\$73,600	\$0	\$0	\$0	\$73,600	0.0%	\$0	0.0%
LOCAL	\$178,400	\$189,033	\$73,360	\$73,360	\$105,040	41.1%	\$115,673	38.8%
NTTA	\$50,000	\$75,000	\$800	\$800	\$49,200	1.6%	\$74,199	1.1%
RTR	\$3,455,000	\$3,383,015	\$340,512	\$340,512	\$3,114,488	9.9%	\$3,042,503	10.1%
Subtotal	\$20,708,800	\$17,093,203	\$4,518,385	\$4,518,385	\$16,190,415	21.8%	\$12,574,818	26.4%
5.02 - Subarea Studies and Local Government Assistance								
TPF	\$1,319,600	\$583,400	\$550,497	\$550,497	\$769,103	41.7%	\$32,903	94.4%
RTR	\$149,000	\$285,990	\$4,295	\$4,295	\$144,705	2.9%	\$281,695	1.5%
Subtotal	\$1,468,600	\$869,390	\$554,792	\$554,792	\$913,808	37.8%	\$314,598	63.8%
5.03 - Land-Use/Transportation Initiatives								
TPF	\$973,700	\$444,400	\$448,677	\$448,677	\$525,023	46.1%	(\$4,277)	101.0%
FTA	\$400,000	\$800,000	\$512	\$512	\$399,488	0.1%	\$799,488	0.1%
STBG	\$7,626,200	\$6,288,682	\$1,661,120	\$1,661,120	\$5,965,080	21.8%	\$4,627,563	26.4%
LOCAL	\$693,300	\$1,986,512	\$331,409	\$331,409	\$361,891	47.8%	\$1,655,103	16.7%
Subtotal	\$9,693,200	\$9,519,595	\$2,441,718	\$2,441,718	\$7,251,482	25.2%	\$7,077,877	25.6%
5.04 - Transportation Asset Management								
TPF	\$194,700	\$93,000	\$55,213	\$55,213	\$139,487	28.4%	\$37,787	59.4%
STBG	\$151,200	\$22,174	\$21,890	\$21,890	\$129,310	14.5%	\$284	98.7%
Subtotal	\$345,900	\$115,174	\$77,102	\$77,102	\$268,798	22.3%	\$38,072	66.9%
5.05 - Congestion Management Planning and Operations								
TPF	\$1,296,200	\$666,200	\$558,311	\$558,311	\$737,889	43.1%	\$107,889	83.8%
CMAQ	\$7,093,400	\$6,650,490	\$3,319,789	\$3,319,789	\$3,773,611	46.8%	\$3,330,702	49.9%
FHWA	\$2,000,000	\$0	\$0	\$0	\$2,000,000	0.0%	\$0	0.0%
STBG	\$8,549,400	\$7,942,789	\$2,558,997	\$2,558,997	\$5,990,403	29.9%	\$5,383,791	32.2%
TXDOT	\$1,676,700	\$1,253,124	\$640,046	\$640,046	\$1,036,654	38.2%	\$613,078	51.1%
LOCAL ⁵	\$5,404,180	\$1,575,022	\$405,324	\$405,324	\$4,998,856	7.5%	\$1,169,698	25.7%
NCTCOG LOCAL ²	\$0.00	\$0.48	\$0.48	\$0.48	(\$0.48)	0.0%	\$0	100.0%
RTR	\$603,000	\$529,931	\$14,189	\$14,189	\$588,811	2.4%	\$515,742	2.7%
Subtotal	\$26,622,880	\$18,617,557	\$7,496,657	\$7,496,657	\$19,126,223	28.2%	\$11,120,900	40.3%
5.06 - Regional Freight Planning								
FTA	\$0	\$25,000,000	\$0	\$0	\$0	0.0%	\$25,000,000	0.0%
STBG	\$8,049,900	\$9,122,092	\$787,812	\$787,812	\$7,262,088	9.8%	\$8,334,280	8.6%
USDOT ⁴	\$1,297,000	\$0	\$0	\$0	\$1,297,000	0.0%	\$0	0.0%
LOCAL	\$2,008,000	\$2,400,000	\$0	\$0	\$2,008,000	0.0%	\$2,400,000	0.0%
Subtotal	\$11,354,900	\$36,522,092	\$787,812	\$787,812	\$10,567,088	6.9%	\$35,734,280	2.2%

Funding Source	Amount Programmed (2-year)	Authorized (2-year) ¹	Expended (FY2022)	Amount Expended (2-year)	Balance of Programmed (2-year)	% Expended of Programmed (2-year)	Balance of Authorized (2-year)	% Expended of Authorized (2-year)
5.07 - Transportation System Security and Emergency Preparedness								
TPF	\$63,500	\$31,600	\$12,129	\$12,129	\$51,371	19.1%	\$19,471	38.4%
Subtotal	\$63,500	\$31,600	\$12,129	\$12,129	\$51,371	19.1%	\$19,471	38.4%
5.08 - Roadway and Railroad Safety								
TPF	\$633,900	\$316,400	\$266,470	\$266,470	\$367,430	42.0%	\$49,930	84.2%
STBG	\$952,300	\$913,588	\$331,210	\$331,210	\$621,090	34.8%	\$582,378	36.3%
LOCAL	\$15,800	\$15,809	\$3,988	\$3,988	\$11,812	25.2%	\$11,821	25.2%
Subtotal	\$1,602,000	\$1,245,798	\$601,668	\$601,668	\$1,000,332	37.6%	\$644,129	48.3%
5.09 - Regional Aviation Planning and Education								
TPF	\$125,900	\$62,600	\$28,904	\$28,904	\$96,996	23.0%	\$33,696	46.2%
LOCAL	\$819,400	\$584,406	\$391,665	\$391,665	\$427,735	47.8%	\$192,741	67.0%
Subtotal	\$945,300	\$647,006	\$420,569	\$420,569	\$524,731	44.5%	\$226,436	65.0%
5.10 - Regional Military and Community Coordination								
TPF	\$193,000	\$88,000	\$15,800	\$15,800	\$177,200	8.2%	\$72,200	18.0%
DOD	\$1,171,100	\$1,170,732	\$228,867	\$228,867	\$942,233	19.5%	\$941,865	19.5%
LOCAL ⁶	\$496,500	\$3,211,451	\$2,432,221	\$2,432,221	(\$1,935,721)	489.9%	\$779,230	75.7%
Subtotal	\$1,860,600	\$4,470,183	\$2,676,888	\$2,676,888	(\$816,288)	143.9%	\$1,793,294	59.9%
5.11 - Transportation Technology and Innovation Program								
TPF	\$688,400	\$327,400	\$336,570	\$336,570	\$351,830	48.9%	(\$9,170)	102.8%
STBG	\$15,799,800	\$10,882,671	\$2,130,755	\$2,130,755	\$13,669,045	13.5%	\$8,751,916	19.6%
TXDOT	\$1,036,600	\$41,192	\$6,927	\$6,927	\$1,029,673	0.7%	\$34,265	16.8%
LOCAL	\$186,600	\$162,622	\$6,203	\$6,203	\$180,397	3.3%	\$156,419	3.8%
Subtotal	\$17,711,400	\$11,413,885	\$2,480,455	\$2,480,455	\$15,230,945	14.0%	\$8,933,431	21.7%
5.12 - Red River Navigation System Feasibility Study								
LOCAL	\$281,800	\$492,084	\$1,977	\$1,977	\$279,823	0.7%	\$490,107	0.4%
Subtotal	\$281,800	\$492,084	\$1,977	\$1,977	\$279,823	0.7%	\$490,107	0.4%
5.13 - North Texas Center for Mobility Technologies								
LOCAL	\$2,496,000	\$2,494,187	\$88,368	\$88,368	\$2,407,632	3.5%	\$2,405,819	3.5%
Subtotal	\$2,496,000	\$2,494,187	\$88,368	\$88,368	\$2,407,632	3.5%	\$2,405,819	3.5%
Total	\$95,154,880	\$103,531,751	\$22,158,520	\$22,158,520	\$72,996,360	23.3%	\$81,373,231	21.4%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Chapter VI. Funding Summaries – Transportation Planning Funds (Two-Year Total) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

² NCTCOG Local funding was used to cover small cost overruns.

³ A portion of the programmed and authorized funding includes funding that was transferred from TxDOT to FTA.

⁴ Funding was programmed as USDOT funding as part of the initial UPWP but changed to FTA as part of UPWP Modification #4.

⁵ A portion of the expenditures includes Regional Transportation Local revenue that was not programmed in the UPWP but used to cover ineligible expenses.

⁶ Local expenditures include expenditure of Regional Transportation Local revenue that was not programmed in the UPWP used to support the landbanking activities.

TASK 5.0 – TPF FUNDING SUMMARY FY 2022

	Amount Programmed	Amount Authorized ¹	Amount Expended	% Expended Programmed	Balance of Authorized	% Expended Authorized
5.01 - Regional Transportation Corridor Studies						
TPF	\$616,700.00	\$616,700.00	\$669,665.79	108.6%	(\$52,965.79)	108.6%
5.02 - Subarea Studies and Local Government Assistance						
TPF	\$583,400.00	\$583,400.00	\$550,497.35	94.4%	\$32,902.65	94.4%
5.03 - Land-Use/Transportation Initiatives						
TPF	\$444,400.00	\$444,400.00	\$448,677.34	101.0%	(\$4,277.34)	101.0%
5.04 - Capital and Operational Asset Management System						
TPF	\$93,000.00	\$93,000.00	\$55,212.57	59.4%	\$37,787.43	59.4%
5.05 - Congestion Management Planning and Operations						
TPF	\$666,200.00	\$666,200.00	\$558,311.42	83.8%	\$107,888.58	83.8%
5.07 - Transportation System Security and Emergency Preparedness						
TPF	\$31,600.00	\$31,600.00	\$12,129.46	38.4%	\$19,470.54	38.4%
5.08 -Roadway and Railroad Safety						
TPF	\$316,400.00	\$316,400.00	\$266,469.71	84.2%	\$49,930.29	84.2%
5.09 -Regional Aviation Planning and Education						
TPF	\$62,600.00	\$62,600.00	\$28,904.15	46.2%	\$33,695.85	46.2%
5.10 - Regional Military and Community Coordination						
TPF	\$88,000.00	\$88,000.00	\$15,799.74	18.0%	\$72,200.26	18.0%
5.11 - Automated Vehicle Technology						
TPF	\$327,400.00	\$327,400.00	\$336,569.88	102.8%	(\$9,169.88)	102.8%
Total	\$3,229,700.00	\$3,229,700.00	\$2,942,237.41	91.1%	\$287,462.59	91.1%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Chapter VI. Funding Summaries – Transportation Planning Funds (Two-Year Total) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

This page intentionally left blank.

VI. Funding Summaries

This page intentionally left blank.

Transportation Planning Funds (FY2022)

UPWP Task	Amount Programmed	Amount Expended	Balance of Programmed	% Expended of Programmed
1.0	\$3,048,350.00	\$2,778,345.22	\$270,004.78	91.1%
2.0	\$1,871,700.00	\$1,979,832.91	(\$108,132.91)	105.8%
3.0	\$2,801,200.00	\$2,701,501.68	\$99,698.32	96.4%
4.0	\$1,863,800.00	\$1,543,491.81	\$320,308.19	82.8%
5.0	\$3,229,700.00	\$2,942,237.41	\$287,462.59	91.1%
Total	\$12,814,750.00	\$11,945,409.03	\$869,340.97	93.2%

Transportation Planning Funds (FY2023)

UPWP Task	Amount Programmed	Amount Expended	Balance of Programmed	% Expended of Programmed
1.0	\$2,908,850.00	\$0.00	\$2,908,850.00	0.0%
2.0	\$1,759,400.00	\$0.00	\$1,759,400.00	0.0%
3.0	\$2,882,600.00	\$0.00	\$2,882,600.00	0.0%
4.0	\$2,102,300.00	\$0.00	\$2,102,300.00	0.0%
5.0	\$3,635,600.00	\$0.00	\$3,635,600.00	0.0%
Total	\$13,288,750.00	\$0.00	\$13,288,750.00	0.0%

**Transportation Planning Funds
(Two-Year Total)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended Programmed	Balance of Authorized	% Expended Authorized
1.0	\$5,957,200.00	\$5,957,200.00	\$2,778,345.22	\$3,178,854.78	46.6%	\$3,178,854.78	46.6%
2.0	\$3,631,100.00	\$3,631,100.00	\$1,979,832.91	\$1,651,267.09	54.5%	\$1,651,267.09	54.5%
3.0	\$5,683,800.00	\$5,683,800.00	\$2,701,501.68	\$2,982,298.32	47.5%	\$2,982,298.32	47.5%
4.0	\$3,966,100.00	\$3,966,100.00	\$1,543,491.81	\$2,422,608.19	38.9%	\$2,422,608.19	38.9%
5.0	\$6,865,300.00	\$6,865,300.00	\$2,942,237.41	\$3,923,062.59	42.9%	\$3,923,062.59	42.9%
Total	\$26,103,500.00	\$26,103,500.00	\$11,945,409.03	\$14,158,090.97	45.8%	\$14,158,090.97	45.8%

	FY2022	FY2023
Carryover	\$4,719,096.67	\$ -
FHWA PL-112	\$9,818,194.72	\$ -
FTA 5303	\$2,943,304.53	\$ -
Total Revenue¹	\$17,480,595.92	\$ -
Total Expended	\$11,945,409.03	\$ -
Carryover	\$5,535,186.89	\$ -

¹ Total revenue is based on workorders received from TxDOT addressed to NCTCOG and does not include the \$157,500 from workorder #2 for TEMPO dues.

**Transportation Planning Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$5,957,200	\$3,048,350	\$2,778,345	\$3,178,855	46.6%	\$270,005	91.1%
2.00	\$3,631,100	\$1,871,700	\$1,979,833	\$1,651,267	54.5%	(\$108,133)	105.8%
3.00	\$5,683,800	\$2,801,200	\$2,701,502	\$2,982,298	47.5%	\$99,698	96.4%
4.00	\$3,966,100	\$1,863,800	\$1,543,492	\$2,422,608	38.9%	\$320,308	82.8%
5.00	\$6,865,300	\$3,229,700	\$2,942,237	\$3,923,063	42.9%	\$287,463	91.1%
Total	\$26,103,500	\$12,814,750	\$11,945,409	\$14,158,091	45.8%	\$869,340.97	93.2%

**Congestion Mitigation and Air Quality Improvement Program Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$2,913,900	\$3,270,850	\$1,056,765	\$1,857,135	36.3%	\$2,214,085	32.3%
2.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3.00	\$1,530,600	\$1,390,419	\$326,589	\$1,204,011	21.3%	\$1,063,830	23.5%
4.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5.00	\$7,093,400	\$6,650,490	\$3,319,789	\$3,773,611	46.8%	\$3,330,702	49.9%
Total	\$11,537,900	\$11,311,760	\$4,703,143	\$6,834,757	40.8%	\$6,608,617	41.6%

**Department of Defense Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
4.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5.00	\$1,171,100	\$1,170,732	\$228,867	\$942,233	19.5%	\$941,865	19.5%
Total	\$1,171,100	\$1,170,732	\$228,867	\$942,233	19.5%	\$941,865	19.5%

**Department of Energy Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3.00	\$137,500	\$217,386	\$132,793	\$4,707	96.6%	\$84,593	61.1%
4.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
Total	\$137,500	\$217,386	\$132,793	\$4,707	96.6%	\$84,593	61.1%

**Environmental Protection Agency Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3.00	\$7,402,250	\$8,013,479	\$2,012,179	\$5,390,071	27.2%	\$6,001,300	25.1%
4.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
Total	\$7,402,250	\$8,013,479	\$2,012,179	\$5,390,071	27.2%	\$6,001,300	25.1%

**Federal Highway Administration Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3.00	\$12,300	\$11,169	\$11,169	\$1,131	90.8%	\$0	100.0%
4.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5.00	\$2,000,000	\$0	\$0	\$2,000,000	0.0%	\$0	0.0%
Total	\$2,012,300	\$11,169	\$11,169	\$2,001,131	0.6%	\$0	100.0%

**Federal Transit Administration Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3.00	\$26,232,650	\$32,059,611	\$6,464,586	\$19,768,064	24.6%	\$25,595,025	20.2%
4.00	\$270,000	\$0	\$0	\$270,000	0.0%	\$0	0.0%
5.00	\$400,000	\$25,800,000	\$512	\$399,488	0.1%	\$25,799,488	0.0%
Total	\$26,902,650	\$57,859,612	\$6,465,098	\$20,437,552	24.0%	\$51,394,514	11.2%

**Local Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$510,200	\$768,374	\$194,656	\$315,544	38.2%	\$573,719	25.3%
2.00	\$373,000	\$372,925	\$0	\$373,000	0.0%	\$372,925	0.0%
3.00	\$17,739,679	\$18,425,752	\$4,972,059	\$12,767,620	28.0%	\$13,453,693	27.0%
4.00	\$688,810	\$711,394	\$108,071	\$580,739	15.7%	\$603,323	15.2%
5.00	\$12,579,980	\$13,111,125	\$3,734,516	\$8,845,464	29.7%	\$9,376,610	28.5%
Total	\$31,891,669	\$33,389,571	\$9,009,302	\$22,882,367	28.2%	\$24,380,269	27.0%

**North Central Texas Council of Governments Local Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$143,800	\$69,198	\$53,112	\$90,688	36.9%	\$16,086	76.8%
2.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3.00	\$0	\$2,702	\$2,702	(\$2,702)	0.0%	\$0	100.0%
4.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5.00	\$0.00	\$0.48	\$0.48	(\$0.48)		\$0	100.0%
Total	\$143,800	\$71,900	\$55,814	\$87,986	38.8%	\$16,086	77.6%

**North Texas Tollway Authority Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
4.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5.00	\$50,000	\$75,000	\$800	\$49,200	1.6%	\$74,199	1.1%
Total	\$50,000	\$75,000	\$800	\$49,200	1.6%	\$74,199	1.1%

**Regional Toll Revenue Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$345,300	\$345,297	\$90,021	\$255,279	26.1%	\$255,277	26.1%
2.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3.00	\$3,319,300	\$3,559,230	\$1,281,925	\$2,037,375	38.6%	\$2,277,305	36.0%
4.00	\$814,600	\$1,201,537	\$107,268	\$707,332	13.2%	\$1,094,269	8.9%
5.00	\$4,207,000	\$4,198,936	\$358,995	\$3,848,005	8.5%	\$3,839,941	8.5%
Total	\$8,686,200	\$9,305,000	\$1,838,208	\$6,847,992	21.2%	\$7,466,792	19.8%

**Surface Transportation Block Grant Program Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$1,187,500	\$942,508	\$485,074	\$702,426	40.8%	\$457,434	51.5%
2.00	\$3,742,500	\$2,288,660	\$842,861	\$2,899,639	22.5%	\$1,445,799	36.8%
3.00	\$9,297,000	\$5,979,165	\$2,643,865	\$6,653,135	28.4%	\$3,335,300	44.2%
4.00	\$3,460,000	\$3,465,000	\$31,350	\$3,428,650	0.9%	\$3,433,650	0.9%
5.00	\$56,704,200	\$48,001,452	\$10,925,830	\$45,778,370	19.3%	\$37,075,621	22.8%
Total	\$74,391,200	\$60,676,785	\$14,928,980	\$59,462,220	20.1%	\$45,747,805	24.6%

**Texas Commission on Environmental Quality Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3.00	\$545,000	\$570,983	\$109,821	\$435,179	20.2%	\$461,162	19.2%
4.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
Total	\$545,000	\$570,983	\$109,821	\$435,179	20.2%	\$461,162	19.2%

**Texas Department of Transportation Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$168,750	\$168,750	\$108,738	\$60,012	64.4%	\$60,012	64.4%
2.00	\$79,800	\$64,431	\$28,653	\$51,147	35.9%	\$35,778	44.5%
3.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
4.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5.00	\$2,786,900	\$1,294,316	\$646,973	\$2,139,927	23.2%	\$647,343	50.0%
Total	\$3,035,450	\$1,527,497	\$784,364	\$2,251,086	25.8%	\$743,133	51.3%

**United States Department of Transportation Funds
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
4.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5.00	\$1,297,000	\$0	\$0	\$1,297,000	0.0%	\$0	0.0%
Total	\$1,297,000	\$0	\$0	\$1,297,000	0.0%	\$0	0.0%

**Tarrant Water Development Board
(Year One – FY2022)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
4.00	\$0	\$3,000,000	\$0	\$0	0.0%	\$3,000,000	0.0%
5.00	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
Total	\$0	\$3,000,000	\$0	\$0	0.0%	\$3,000,000	0.0%

**Summary of Funds and Expenditures
FY2022 and FY2023**

UPWP Task	Amount Programmed (2-year)	Amount Authorized (2-year)	Expended (FY2022)	Expended (FY2023)	2 Year Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1.0	\$11,226,650	\$8,613,328	\$4,766,711	\$0	\$4,766,711	\$6,459,939	42.5%	\$3,846,618	55.3%
2.0	\$7,826,400	\$4,597,716	\$2,851,347	\$0	\$2,851,347	\$4,975,053	36.4%	\$1,746,369	62.0%
3.0	\$71,900,079	\$73,031,096	\$20,659,189	\$0	\$20,659,189	\$51,240,890	28.7%	\$52,371,907	28.3%
4.0	\$9,199,510	\$10,241,731	\$1,790,181	\$0	\$1,790,181	\$7,409,329	19.5%	\$8,451,550	17.5%
5.0	\$95,154,880	\$103,531,751	\$22,158,520	\$0	\$22,158,520	\$72,996,360	23.3%	\$81,373,231	21.4%
Total	\$195,307,519	\$200,015,623	\$52,225,948	\$0	\$52,225,948	\$143,081,571	26.7%	\$147,789,675	26.1%