MOBILITY 2045 UPDATE
DRAFT RECOMMENDATIONS

NCTCOG Public Meeting
May 2022
AGENDA

1. What is the Metropolitan Transportation Plan?
2. Regional Perspective
3. Draft Recommendations
4. Nondiscrimination Analysis
5. Input Opportunity
6. Transportation Conformity Results
WHAT IS THE METROPOLITAN TRANSPORTATION PLAN?

- Represents a Blueprint for the Region’s Multimodal Transportation System
- Covers at Least a 20-year Timeframe
- Responds to Goals
- Identifies Policies, Programs, and Projects for Continued Development
- Guides the Expenditure of Federal and State Funds
WHY UPDATE THE PLAN?

4-Year Federal Requirement

June 2018

November 2018

May/June 2022

November 2022

Mobility 2045 Adopted

Air Quality Conformity Determination

ADOPTION Mobility 2045 Update

DEADLINE Air Quality Conformity
MAJOR MOBILITY PLAN COMPONENTS

PLAN CONTENT
- PROGRAMS
- POLICIES
- PROJECTS

FINANCIAL PLAN
- FINANCIAL CONSTRAINT

NONDISCRIMINATION ANALYSIS
- NO DISPARATE IMPACTS

AIR QUALITY CONFORMITY
- CONSISTENCY WITH FEDERAL/STATE AIR QUALITY GOALS
MOBILITY PLAN DEVELOPMENT

- Vision
- Goals
- Objectives
- Performance Measures
- Project Selection
- Prioritization
- Adoption

→ Policies
   - Programs
   - Projects
MOBILITY PLAN GOALS

Four goal themes

Nine goals

Mobility
- Improve Transportation Options
- Support Travel Efficiency Strategies
- Ensure Community Access to System and Process

Quality of Life
- Enhance Environment and Lifestyles
- Encourage Sustainable Development

System Sustainability
- Ensure Adequate Maintenance, Safety, and Reliability
- Pursue Long Term, Sustainable Financial Resources

Implementation
- Provide Timely Planning and Implementation
- Develop Cost Effective Projects and Programs
REGIONAL PERSPECTIVE

Population Forecast by County

WISE
68K
1.72%
104K

DENTON
897K
1.5M
1.58%

COLLIN
1.1M
1.8M
2.12%

HUNT
97K
144K
1.58%

PARKER
146K
235K
1.89%

TARRANT
2.1M
3.1M
1.53%

DALLAS
2.6M
3.5M
1.26%

KAUFMAN
144K
209K
1.52%

ELLIS
191K
318K
2.07%

JOHNSON
177K
258K
1.53%

HOOD
61K
95K
1.81%

ROCKWALL
107K
162K
1.66%

LEGEND

2020 Census Population
2045 Population Forecast
Annual Growth Rate

4th Largest metro area in US
30% of Texas’ GDP
40% Increase in population forecasted
45% Increase in employment forecasted
REGIONAL GROWTH

Annual Cost of Congestion

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Cost (Billion)</th>
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</thead>
<tbody>
<tr>
<td>CURRENT conditions</td>
<td>$12.3</td>
</tr>
<tr>
<td>2045 BUILD conditions</td>
<td>$32.1</td>
</tr>
<tr>
<td>2045 NO-BUILD conditions</td>
<td>$60.8</td>
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</tbody>
</table>
# Planning Approach and Financial Plan

## Maximize Existing System

<table>
<thead>
<tr>
<th>Infrastructure Maintenance</th>
<th>$39.5 B</th>
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</thead>
<tbody>
<tr>
<td>Maintain and operate existing transit and roadway facilities</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Management and Operations</th>
<th>$9.5 B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve efficiency and remove trips from system</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Growth, Development, and Land Use Strategies</th>
<th>$1.5 B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve transportation and land use balance</td>
<td></td>
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## Strategic Infrastructure Investment

<table>
<thead>
<tr>
<th>Rail and Bus</th>
<th>$44.9 B</th>
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<tbody>
<tr>
<td>Encourage switch to transit</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>HOV/Managed Lanes</th>
<th>$52.8 B</th>
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<tbody>
<tr>
<td>Increase auto occupancy</td>
<td></td>
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</tbody>
</table>

| Freeways/Tollways and Arterials | Add vehicle capacity |

## Total

| Total | $148.3 B |

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### Financial Requirements

- Financial Constraint
- Reasonably expected sources of revenue
- Year-of-expenditure dollars
- Balance priorities with available revenues
HIGHLIGHTED POLICY AND PROGRAM UPDATES

Safety
References new Pedestrian Safety Action Plan endorsed by the Regional Transportation Council on June 10, 2021

Health Accessibility Program
Identify and support transportation solutions to address health disparities in underserved communities, including solutions that improve access to healthy food and medical care

Environmental Considerations
Build on air quality, resiliency, and environmental programs and incorporate new strategies

TDM Strategies
RTC Resolution R21-04 supports the establishment of a regional SOV trip reduction target of 20% annually
HIGHLIGHTED TECHNOLOGY
PROGRAM UPDATES

**Advance High-Speed Transportation recommendations**
Consider high-speed rail between Dallas-Arlington-Fort Worth, as well as connectivity with the proposed Houston-Dallas high-speed rail and Fort Worth-Laredo high-speed rail/hyperloop.

**Safe Integration of Vertical Mobility Technology in the NCTCOG region**
New policy to safely and efficiently integrate Vertical Mobility Technology, Advanced Air Mobility, Urban Air Mobility, Unmanned Traffic Management, and Unmanned Aircraft Systems into the NCTCOG region.

**Advance Automated Transportation Systems (ATS)**
Apply ATS technology in passenger and freight applications for local circulation and first/last mile access to regional rail.

**Automated Vehicles**
Incorporate the new Automated Vehicle 2.0 initiative launched since the adoption of the last Mobility Plan.

**Internet and Broadband**
Incorporates a new topic of broadband internet through discussion of access, infrastructure, the intersection of communications and transportation, and potential uses.
DRAFT MATERIALS AVAILABLE ONLINE
www.nctcog.org/PlanInProgress
### PLAN SCHEDULE

<table>
<thead>
<tr>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
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<tbody>
<tr>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
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#### Agency and Public Coordination

- **Plan Development**: Draft Forecast, Final Forecast, Draft Recommendations for Review, Demographic Forecast Development

#### Draft Plan Published
As of February 2022

**Official Public Comment Period**
April 1, 2022 – May 31, 2022

#### Air Quality Conformity

**Notes:**
- Public meetings held during highlighted months.
- Regional Transportation Council action on Mobility 2045 Update scheduled for June 9, 2022.
Comments on the draft plan accepted online, by mail, phone, or email during the 60-day public comment period. Visit the website for full details.

Comments also accepted as part of this NCTCOG public input opportunity.
<table>
<thead>
<tr>
<th>CONTACTS</th>
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<tbody>
<tr>
<td><strong>Mobility Plan</strong></td>
</tr>
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<td><strong>Amy Johnson</strong></td>
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<td>Senior Transportation Planner</td>
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<td>817-704-5608</td>
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<tr>
<td><strong>Brendon Wheeler, PE</strong></td>
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<td>Program Manager</td>
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<tr>
<td>682-433-0478</td>
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<tr>
<td>**Environmental Coordination</td>
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<tr>
<td><strong>Kate Zielke</strong></td>
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<tr>
<td>Principal Transportation Planner</td>
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<td><a href="mailto:kzielke@nctcog.org">kzielke@nctcog.org</a></td>
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<td>817-608-2395</td>
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<tr>
<td><strong>Vivek Thimmavajjhala</strong></td>
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<tr>
<td>Transportation System Modeler II</td>
</tr>
<tr>
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</tr>
<tr>
<td>817-704-2504</td>
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TRANSPORTATION CONFORMITY
2022 TRANSPORTATION AIR QUALITY CONFORMITY ANALYSIS

PURPOSE

*Required* by Federal Legislation

*Demonstrates* that projected emissions from transportation projects are within emission limits (Motor Vehicle Emissions Budgets) established by the State Implementation Plan (SIP)

*Ensures* federal funding and approval is applied to transportation projects that are consistent with air quality planning goals
Nonattainment Areas Under the 8-Hour Ozone Standards
Reason and Highlights
Mobility 2045 (previous plan)
  Adopted by RTC on June 14, 2018
  Achieved USDOT Transportation Conformity Determination on November 21, 2018
Updated plan, with conformity determination, required within four years

Scenarios
  Conformity Demonstration Against Current Motor Vehicle Emissions Budgets
  (Analysis year 2017, Meteorological Data 2012), OR
  Conformity Demonstration Against Anticipated Motor Vehicle Emissions Budgets
  (Analysis year 2020, Meteorological Data 2011)

Analysis Years
  2023, 2026, 2036, and 2045
2023 TRANSPORTATION CONFORMITY RESULTS (SCENARIO 1) DRAFT

NITROGEN OXIDES (NO\textsubscript{x})
(TONS/DAY)

<table>
<thead>
<tr>
<th>Year</th>
<th>Emissions (tons/day)</th>
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<tbody>
<tr>
<td>2023</td>
<td>72.97</td>
</tr>
<tr>
<td>2026</td>
<td>64.39</td>
</tr>
<tr>
<td>2036</td>
<td>0.91</td>
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<tr>
<td>2045</td>
<td>51.24</td>
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Includes Reductions from RTC Initiatives of 0.24 tons/day

VOLATILE ORGANIC COMPOUNDS (VOC)
(TONS/DAY)

<table>
<thead>
<tr>
<th>Year</th>
<th>Emissions (tons/day)</th>
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<tbody>
<tr>
<td>2023</td>
<td>39.15</td>
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<tr>
<td>2026</td>
<td>34.85</td>
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<tr>
<td>2036</td>
<td>0.56</td>
</tr>
<tr>
<td>2045</td>
<td>0.51</td>
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</table>

Includes Reductions from RTC Initiatives of 1.19 tons/day

1 Adequacy Status of the Dallas-Fort Worth, Texas Attainment Demonstration 8-Hour Ozone Motor Vehicle Emission Budgets for Transportation Conformity Purposes, 81 FR 78591
2023 TRANSPORTATION CONFORMITY RESULTS
(SCENARIO 2) DRAFT

NITROGEN OXIDES (NOₓ)
(TONS/DAY)

VOLATILE ORGANIC COMPOUNDS (VOC)
(TONS/DAY)

2020 MVEB¹
107.25 tons/day

Includes Reductions from RTC Initiatives of 1.19 tons/day

2020 MVEB¹
62.41 tons/day

Includes Reductions from RTC Initiatives of 0.24 tons/day

¹Anticipated Dallas-Fort Worth, Texas Reasonable Further Progress 8-Hour Ozone Motor Vehicle Emission Budgets for Transportation Conformity Purposes, 85 FR