

**EMISSION SOURCES
FOR STUDY IN THE
OZONE PLANNING
PROCESS**

**NFRMPO TAC Meeting
September 18, 2024**

RABC
REGIONAL AIR QUALITY COUNCIL

AQ PLANNING

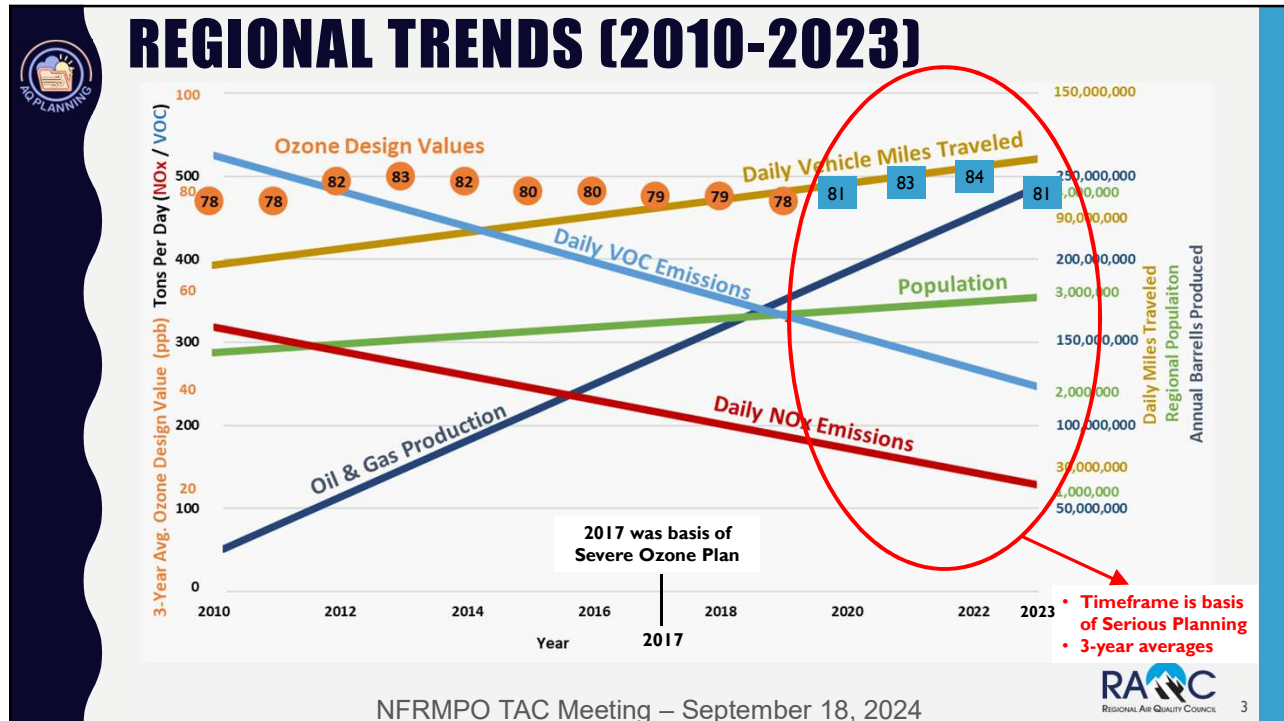
1

**CONTEXT FOR
OZONE
ATTAINMENT
PLANNING**

RABC
REGIONAL AIR QUALITY COUNCIL

AQ PLANNING

2



3

Reducing ozone for the Serious Plan attainment demonstration

- Anthropogenic NAA emissions show **15 - 20 ppb contribution at highest ozone sites**
 - [2023 Local Source Apportionment Analysis](#) – April 2021
- Highest modeled ozone site in **2023 Severe Plan analysis shows 74.6 ppb by 2026**
 - 3 other sites model >71 ppb ([2026 Attainment Demo_DM-NFR_2023 Severe-O3-Plan.pdf](#) - Sept. 2023)
- For Serious Ozone plan modeling analysis, need to **reduce max of 74.6 by ~ 4 ppb**
 - All sites must model 70.9 ppb or less to demonstrate attainment in 2026
 - Modeled 2026 ozone for Serious Plan needs to be >6% less than was modeled in 2023 Severe Plan
- **4 ppb / 20 ppb = 20% reduction needed in modeled 2026 ozone caused by local emissions**
- Setting the emission reduction goal for the Serious Plan:
 - To reduce modeled ozone by 20%, **total NAA anthro NOx and VOC 2026 emission projections must be >20% lower** than estimates used in Severe Plan approved in 2023 for 2008 75 ppb NAAQS

NFRMPO TAC Meeting – September 18, 2024

4




selected data: 2026 EMISSION PROJECTIONS FROM SEVERE OZONE ATTAINMENT PLAN

(approved by RAQC Board
and AQCC in 2023)

5

SOURCE CATEGORY 2026 EMISSION PROJECTIONS

These total NOx and VOC emissions must be reduced with variable controls by ~20% to model 70 ppb NAAQS attainment




Table 1-3: Attainment Year Inventory

Description	2026 Emissions Inventory (TPD)	
	2026 VOC	2026 NOx
Area	66.3	0.3
Agriculture	3.0	0.0
Architectural and Industrial Maintenance	24.0	--
Consumer Products	29.5	--
Cooking and Grilling	0.7	0.1
Other	6.3	0.2
Portable Fuel Containers	2.9	--
Non-Road	47.4	34.6
Agriculture	0.1	1.0
Aviation	2.6	9.0
Commercial Equipment	6.6	10.9
Lawn & Garden	36.0	7.5
Railroad	0.3	5.7
Recreation	1.9	0.5
Oil and Gas	90.4	68.4
Area	61.8	52.9
Condensate/Oil Tanks	15.4	0.2
Point	13.3	15.3
On-Road	27.0	21.7
Light-Duty Vehicles	26.3	14.6
Medium/Heavy-Duty Vehicles	0.7	7.1
Point (Non Oil and Gas)	21.5	19.6
EGU	0.3	4.7
Non-EGU	21.2	14.9
TOTAL	252.7	144.5

NFRMPO TAC Meeting – September 18, 2024

6

SEVERE ATTAINMENT PLAN: CURRENT ONROAD MOBILE SOURCE 2026 EMISSION BUDGETS (caps)

Table 2-5: Attainment Year Motor Vehicle Emissions Budgets

Motor Vehicle Emissions Budgets	2026	
	VOC (tpd)	NOx (tpd)
Northern Subarea Budget <i>(NFRMPO & UFR TPR Subarea)</i>	4.0	3.4
Southern Subarea Budget <i>(DRCOG & UFR TPR Subarea)</i>	23.0	18.3
Total Nonattainment Area Budget <i>(Entire Nonattainment Area)</i>	27.0	21.7

New caps will be established for 2026 as part of the Serious Ozone Attainment Plan



NFRMPO TAC Meeting – September 18, 2024

7




PLANS FOR INDIRECT SOURCES TECHNICAL WORK GROUP

8

INDIRECT SOURCE EMISSION REDUCTION WORK GROUP FIRST MEETING

Meeting goals:

- Indirect sources presentations:
Understanding where we are, what work has been done so far, and options to explore going forward
- Introductions of interested stakeholders, sharing of perspectives, and discussion

<https://raqc.org/subcommittee/control-strategy-committee-indirect-sources-work-group/>

Agenda:

- Background information
- Existing Indirect Source Program presentations
- Stakeholder perspectives roundtable
- Discussion
 - Group goals
 - Possible topics at future meetings
 - Engaging relevant stakeholders
 - Q&A



NFRMPO TAC Meeting – September 18, 2024

9

INDIRECT SOURCES EMISSION REDUCTIONS WORK GROUP FIRST MEETING

- Tuesday, September 24th, 10:00 am – 12:00 pm
- Please email kreumannmoore@raqc.org to confirm if you plan to attend in person. Snacks will be provided.
 - Denver Metro Chamber of Commerce - Video Conference Room, 4th Floor
 - 1445 Market Street, Denver, CO 80202
- Register to attend on Zoom using the link below:
<https://us02web.zoom.us/meeting/register/tZclce2prD0rE9bd7Z6EOL9csTruz11--DnZ>



NFRMPO TAC Meeting – September 18, 2024



10

2025 Active Transportation Plan (ATP) Update

NFRMPO TAC

North Front Range
Metropolitan
Planning
Organization

September 18, 2024

1

Timeline

Anticipated adoption: Early 2025


Phase	2023	2024				2025
	Q4	Q1	Q2	Q3	Q4	Q1
Goals and Problem Statement						
Existing Condition/Active Transportation Facilities Data Update						
RATC Visioning						
Closing the Feedback Loop/Adoption						

2025 [Active Transportation Plan](#)

2

2

Outreach Strategy



Four Phases:


1. Goals and Problem Statement
 - Set specific active transportation related goals ✓
 - Identify the priorities of communities, elected officials, and stakeholders ✓
 - Explain the purpose of the 2025 ATP and the planning process ✓
2. Existing Condition/ Active Transportation Facilities Update
 - Identify the infrastructural problems related to Active Transportation in the Region ✓
 - Update the NFRMPO's Active Transportation facilities data
3. Regional Active Transportation Corridor (RATC) Visioning
 - Discuss and identify potential projects along or impacting RATCs
 - Create vision plans for RATC corridors based on potential projects and existing plans
4. Closing the Feedback Loop
 - Follow up with participants with the Draft 2025 ATP
 - Evaluate the final plans to expectations at beginning

[2025 Active Transportation Plan](#)

3

3

2025 ATP Survey

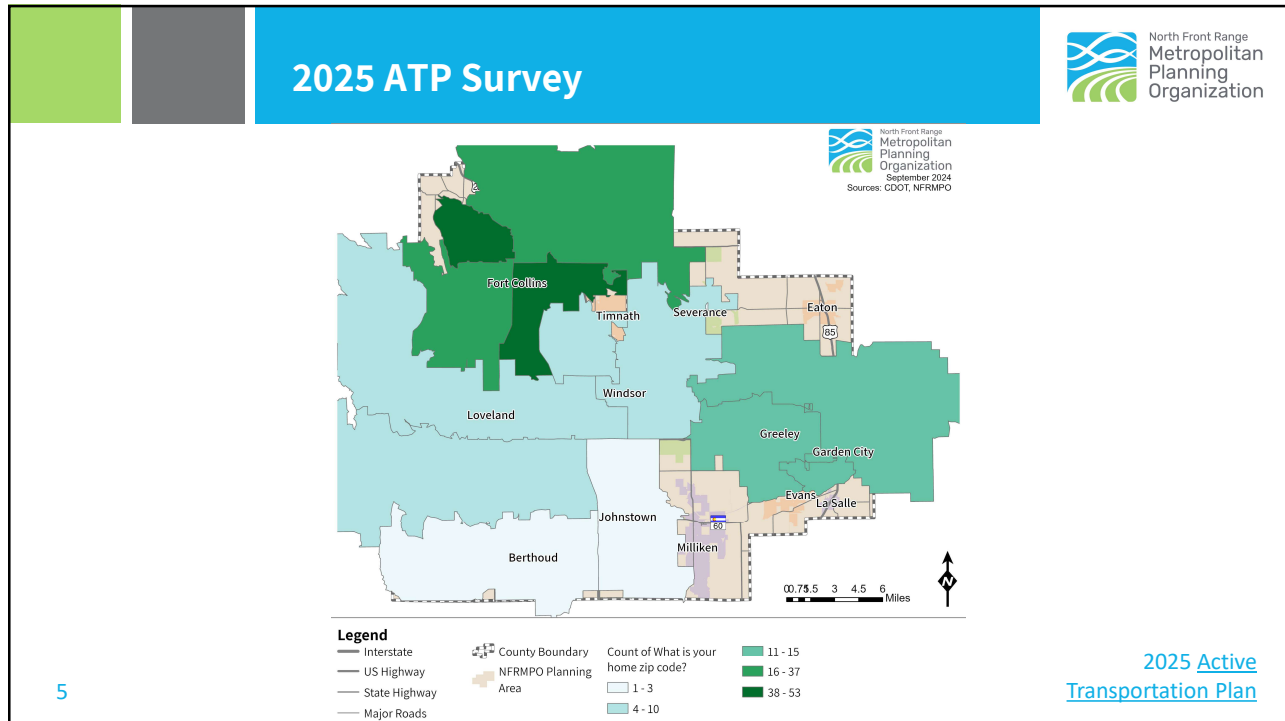


- 262 Responses
 - 3 in Spanish
- 19 zip codes
- Open until September 27th

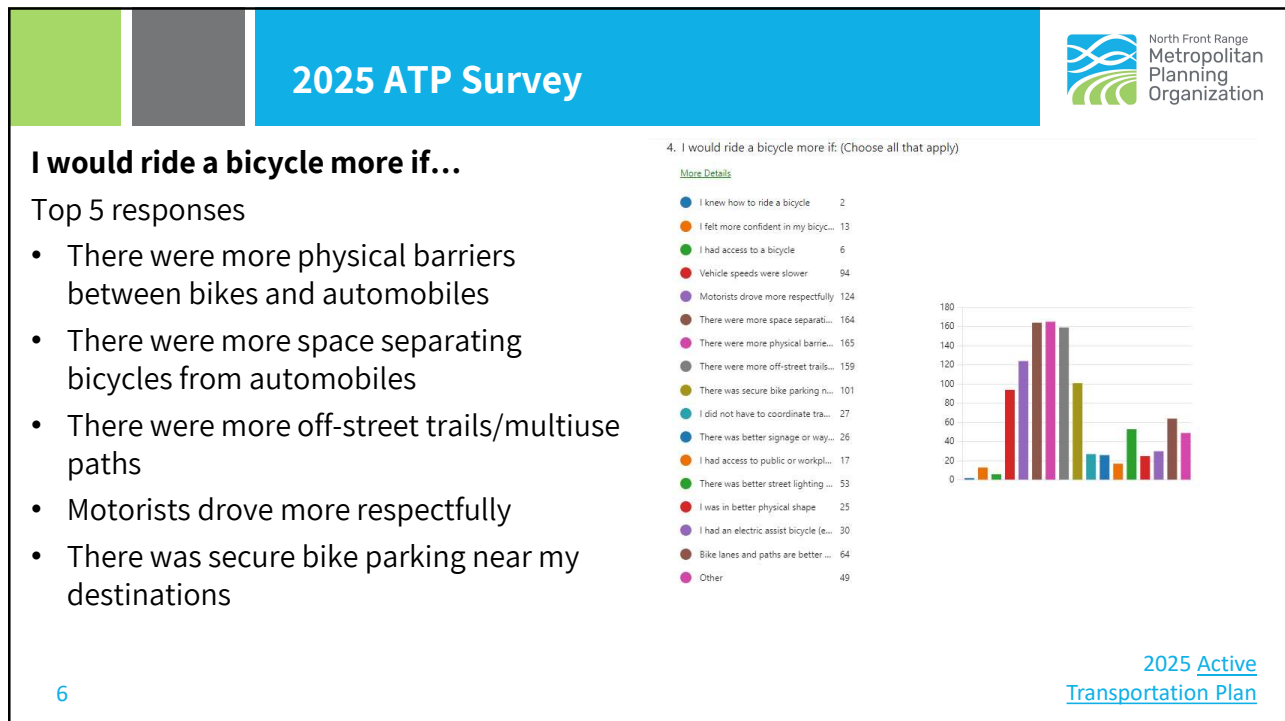
[2025 Active Transportation Plan](#)

4

4




5



6

2025 ATP Survey



North Front Range
Metropolitan
Planning
Organization

I would walk or roll more if..

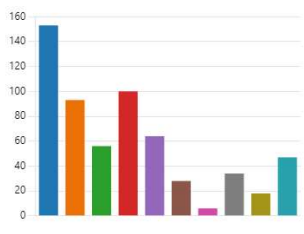
Top 5 responses

- It didn't take so long to walk/roll to my destinations
- There were safer crosswalks
- There were more off-street sidewalks or off-street walking paths
- The sidewalks and paths were in better condition
- There was more street lighting after dark

9. I would walk or roll more if: (Choose all that apply)

[More Details](#)


● It didn't take so long to walk/rol...	153
● There were more off-street side...	93
● There was more street lighting a...	56
● There were safer crosswalks	100
● The sidewalks and paths were in...	64
● I did not have to coordinate tra...	28
● There was better signage or way...	6
● I felt safer from crime while walk...	34
● Sidewalks/paths are more acces...	18
● Other	47



[2025 Active Transportation Plan](#)

7

2025 ATP Survey



North Front Range
Metropolitan
Planning
Organization

I would take transit more if..

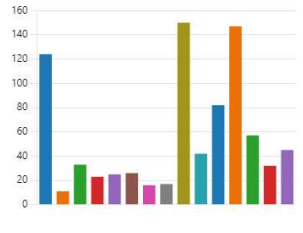
Top 5 responses

- There was more frequent service
- There were more routes to more destinations
- It did not take so long to get to my destination
- There was later evening service
- There were safe, reliable bike parking

15. I would take transit more if: (Choose all that apply)

[More Details](#)

● It did not take so long to get to ...	124
● There was more street lighting a...	11
● I felt safer on transit or at transit...	33
● Transit stops were in better con...	23
● Sidewalks or paths to stops wer...	25
● There were better resources or ...	26
● The bus was cleaner	16
● If my employer or school paid al...	17
● There was more frequent service	150
● There was earlier morning service	42
● There was later evening service	82
● There were more routes to mor...	147
● There were safe, reliable bike pa...	57
● Transit was cheaper or free	32
● Other	45




[2025 Active Transportation Plan](#)

8

8

2025 ATP Survey



Do you have any additional comments pertaining to Active Transportation?


Overall themes:

- More traffic calming elements on bike routes
- More dedicated bike/ped infrastructure
- Include bike/ped elements in all future projects
- Reckless drivers
- Better bicycle facilities at transit stops and on buses

9
2025 Active Transportation Plan

9

Bicycle Level of Traffic Stress (LOTS)



- Output from the Regional Travel Demand Model (RTDM)
 - Considers:
 - Bicycle Facility Type
 - Number of lanes
 - Traffic speed
 - Traffic volumes

Table 2.13 Bicycle Facility Type Definitions

Bicycle Facility Type	Description
1	Bike trails / mixed use paths / Protected bike lanes
2	Bike lanes
3	Bike routes / Sharrows
4	No specific treatment, but bikes allowed
-1	Bikes prohibited

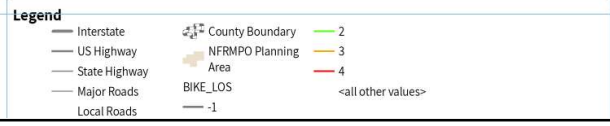
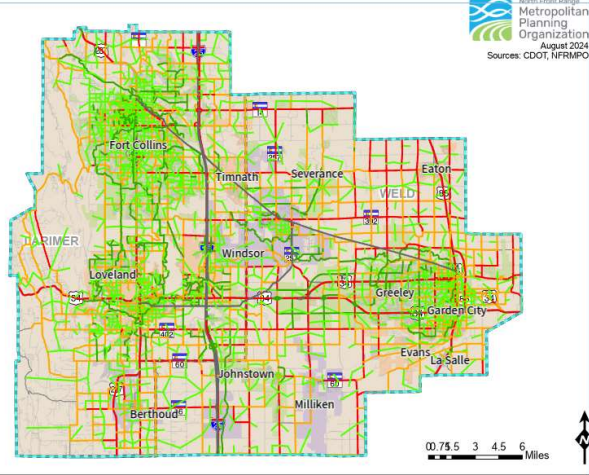
Table 10.6 Bicycle Level of Traffic Stress Definitions

Bicycle LOS	Description
-1	Bicycles not allowed
1	Comfortable for anyone
2	Comfortable for regular bike commuter
3	Comfortable for confident road cyclist
4	Not comfortable for anyone
5	Not suitable for cycling

10
2025 Active Transportation Plan

10

2019 Bicycle LOTS Map

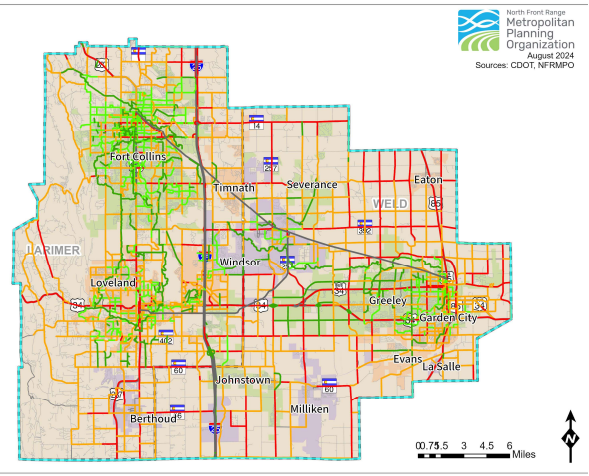


11

2025 Active Transportation Plan

11

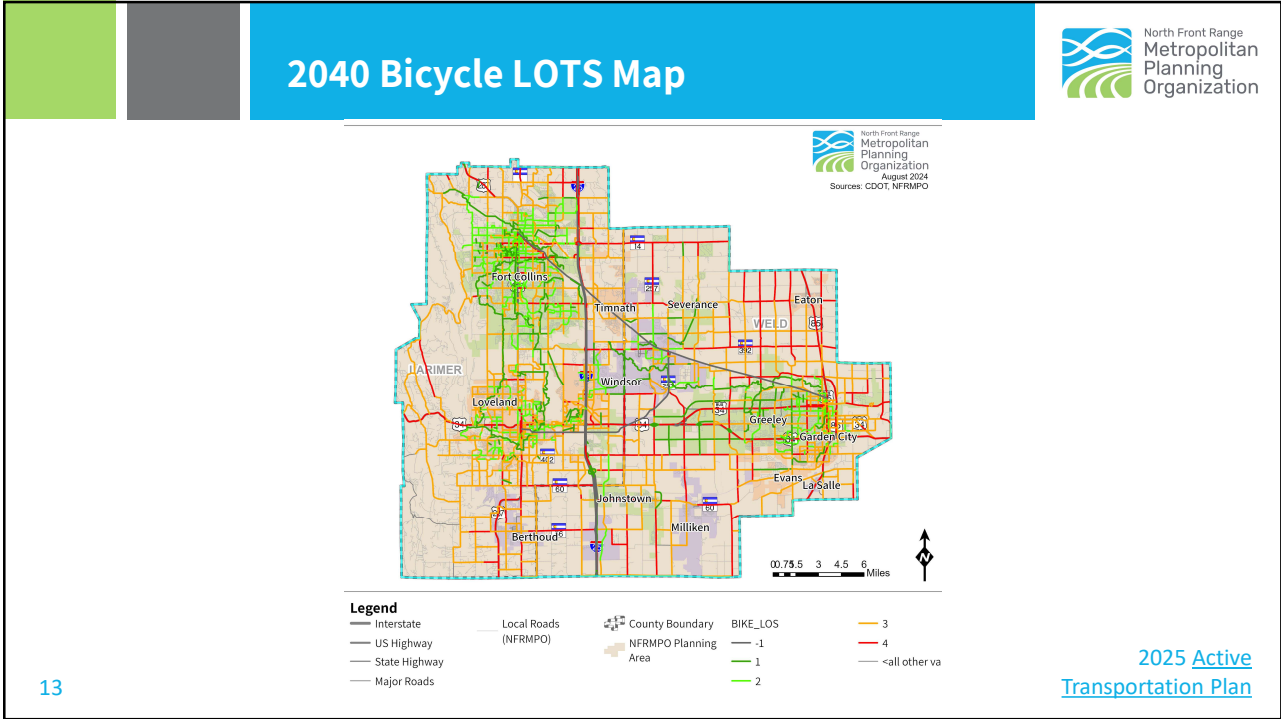
2030 Bicycle LOTS Map



12

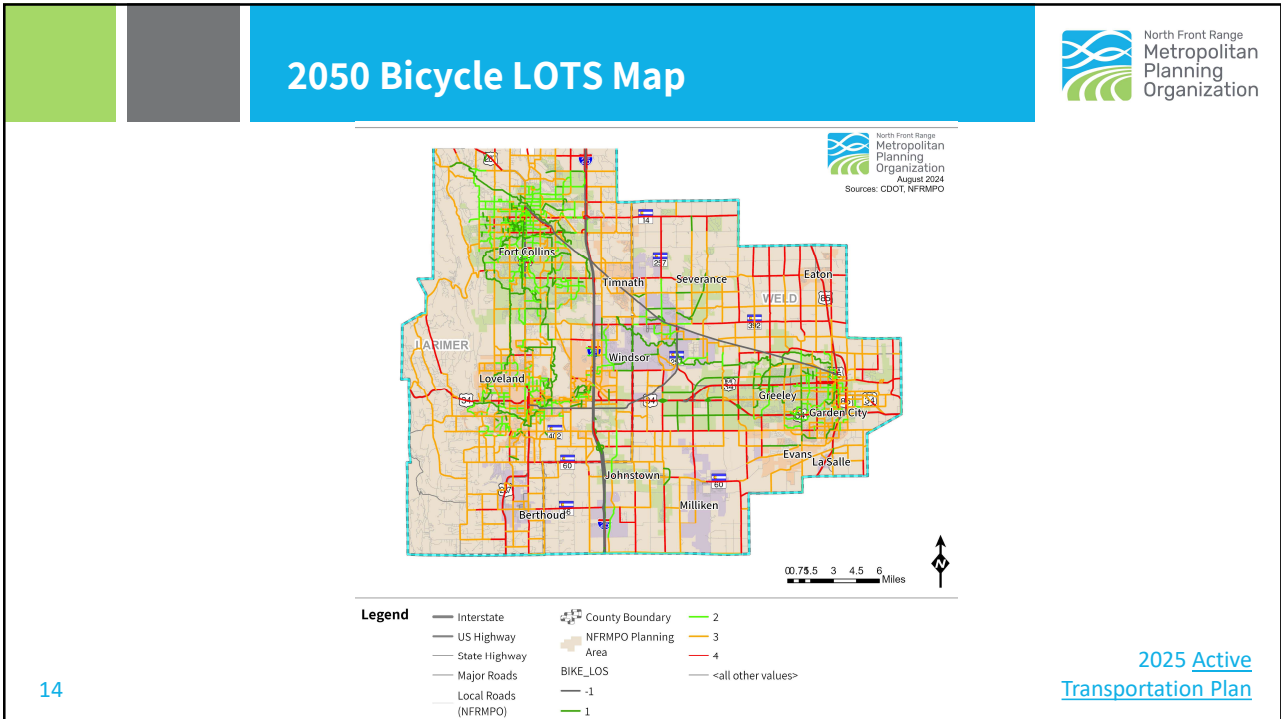
2025 Active Transportation Plan

12



13


13



14

14

RATC Visioning



- RATC Corridor Profiles and Visioning will include:
 - Trail crossing needs
 - Strategic local connections
 - Proposed alignments
 - Corridor narratives and conditions

RATC #6: Corridor-Level Information

Corridor Description		Planning References	
The Poudre River Trail Corridor is a nationally recognized bicycle and pedestrian corridor. Within the NFRMPO region, the vision for this corridor is a 52-mile continuous trail between Watson Lake State Wildlife Area (SWA) in Redgum and the confluence of Poudre River's confluence with the South Platte River east of Greeley. By 2023, 44 contiguous miles will exist between Greeley and Watson Lake SWA. The interagency collaboration required to complete this corridor has built the model for all other Northern Colorado corridors. Consistent local investment has brought in millions of dollars in state and federal grants. Only three gaps remain between Fort Collins and Windsor. These remaining gaps will be completed partially using funding sources such as State Get Outdoors Colorado (GOOC) and Multimodal Options Funds (MOF). The corridor traverses the Cache la Poudre National Heritage Area and is recognized as the backbone of the Colorado State Park's Front Range Trail through Northern Colorado. There is an extensive network of formal and informal soft-surface trails serving various purposes along this corridor. There is opportunity to expand and improve this network and to prove the viability of various concepts along other RATCs; proposals have included amenities such as mountain bike skills parks, formalized racing courses, and more.		Larimer County - Larimer County Open Lands Master Plan (2015)* Fort Collins - Fort Collins Parks and Recreation Master Plan (2012)* Timnath - Timnath Comprehensive Plan (2020), Timnath Transportation Plan (2015)* Windsor - Windsor Trail System Master Plan (2020)* Weld County - 2045 Weld County Transportation Plan (2020) Greeley - Greeley Bicycle Master Plan (2016)*	
*In this plan or related plan to be updated within two years			

Total Length (Miles)	On-Street Miles	Off-Street Miles	Population within 1/2 Mile	Jobs within 1/2 Mile	Schools within 1/2 mile	Transit Stops within 1/2 Mile
2020 (includes interim)	2045	2020	2045	2020	2045	2020
41.34	15.19	0.22	0	41,12	51,19	51,883
				105,728	47,124	82,407

Notes: On-Street and Off-Street Miles may add up to more than Total Length if RATC has segments with "combined" on- and off-street facilities. 2020 schools and transit stops were used for 2045 calculations.


RATC #6: Segment-Level Information

Segment ID	Extents	Status	Facility Type (Build Out)	Jurisdictions	Segment Description
6-A	North of the NFRMPO Region	Proposed	Separated	Larimer County, CODOT	According to the 2015 Larimer County Open Lands Master Plan, this segment will leave the NFRMPO region north of Watson Lake SWA and head towards the intersection of US387 and SH14 (Ted's Place), near the mouth of the Poudre River Canyon. Construction timing for this segment is dependent on the future of the Glade Reservoir NISF project.
Key Local Connection Needs: None Identified - Outside NFRMPO Planning Area					
Crossing Needs: None Identified - Outside NFRMPO Planning Area					
6-B	NFRMPO Boundary to Riv Canyon Road	Proposed and Interim	Separated	Larimer County, Colorado State Parks	A 1.5-mile trail gap in currently exists between the Watson Lake SWA entrance, the river side trail segment east of Watson Lake. To accommodate regional trail usage, this 0.6-mile existing segment would need to be widened. From the northern end of Watson Lake, the trail will continue out of the NFRMPO region towards Ted's Place. Construction for this segment is dependent on the future of the Glade Reservoir project.
Key Local Connection Needs: None Identified					
Crossing Needs: None Identified					

15
2025 Active Transportation Plan

15

Next Steps




- Further Analyze Bicycle LOTS Maps
 - Bicycle LOTS by Regionally Significant Corridors (RTCs)
- Begin community meetings
 - RATC Vision Planning
 - Discuss planned projects on RATCs
- Begin RATC Corridor Profiles
- Discuss ATP at outreach events
- Draft the Plan

16
2025 Active Transportation Plan

16

Questions?



Jerome Rouser, AICP
Transportation Planner II
(970) 422-1096
jrouser@nfrmpo.org

17

[2025 Active Transportation Plan](#)

Northern Colorado Bike & Ped Collaborative

Executive Summary – Wednesday, September 11, 2024

GoToMeeting Hybrid Meeting

Regional Active Transportation Corridors (RATCs)

Rouser gave an overview of the NFRMPO's Regional Active Transportation Corridors (RATCs). Rouser outlined each of the 12 RATCs, including which communities the corridor impacts, total corridor length, and population within ½ mile of the corridor in 2020 and 2045. Rouser noted NFRMPO staff will begin meeting with local communities in late September and will be discussing RATC construction updates and future plans, RATC alignments, and strategic local connections. The group discussed each of the RATCs. Main topics of discussion included corridor branding, project updates, and questions on trail alignments.

Regional Shared Micromobility

Ruhlen stated the City of Fort Collins will be releasing an RFP for the City's shared micromobility provider in Summer of 2025. Ruhlen noted their current contract with SPIN is jointly owned by the City and CSU. Ruhlen asked the group if there would be a desire for a regional micromobility program. The group discussed creating a regional shared micromobility subcommittee to further discuss regional collaboration opportunities.

Asphalt Art Lessons Learned

Geary gave an overview of the City of Fort Collins' Asphalt Art program. The first asphalt art projects were midblock murals and were primarily funded by Bloomberg and NACTO grants. In 2023, the City completed the first curb extension project. Geary noted the intersection of Canyon Avenue, Magnolia Street, and Sherwood Street had significant pedestrian concerns due to the wideness of the intersection. The asphalt art project at this intersection aimed to reduce pedestrian crossing distances and simplify the intersection for vehicles. Geary noted this project also included ADA features. The group discussed cost estimates for these projects, the process for community engagement with these projects, project lifespans, and maintenance.

Roundtable

This meeting had no roundtable.