

DURHAM • CHAPEL HILL • CARRBORO

**DCHC**

METROPOLITAN PLANNING ORGANIZATION

PLANNING TOMORROW'S TRANSPORTATION

# 2050 MTP – Performance Measures

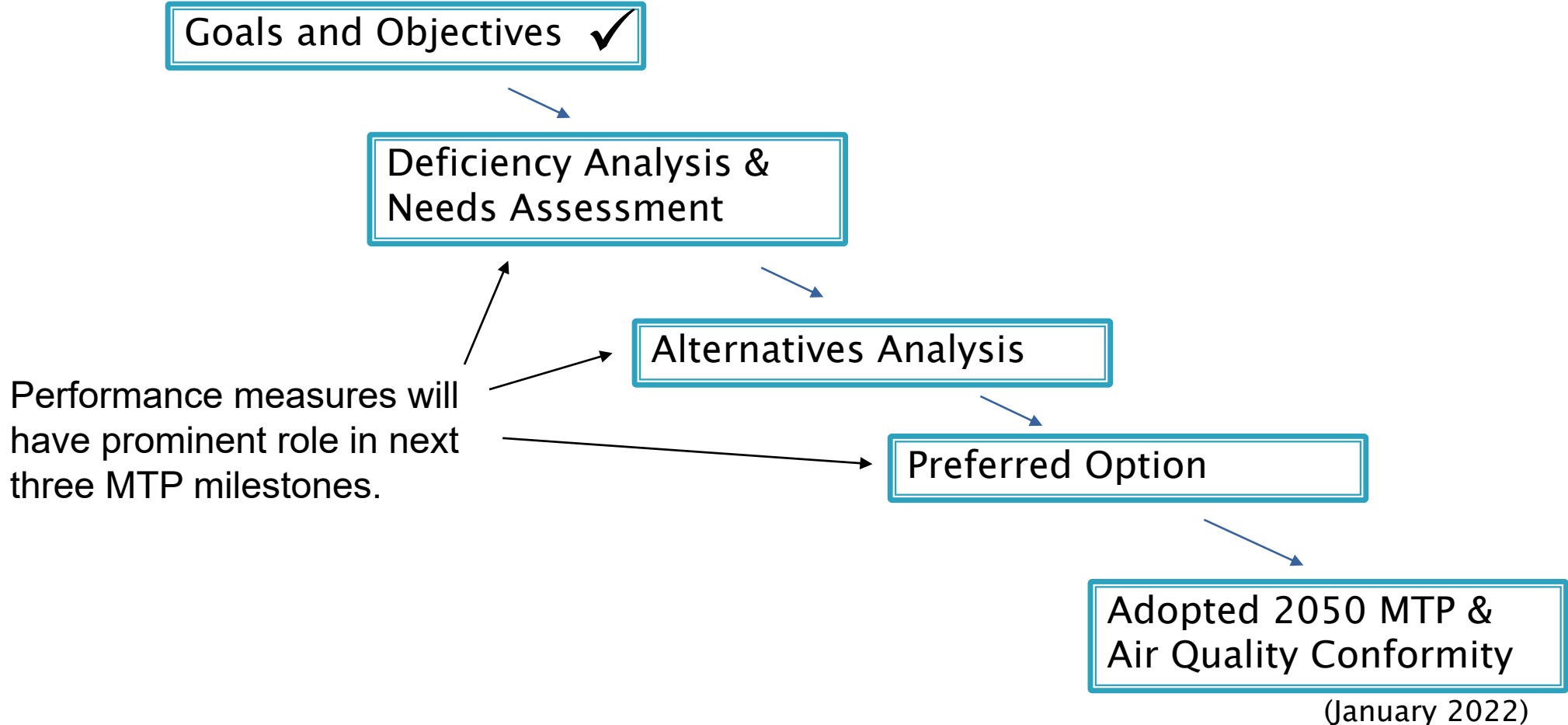
Andy Henry, Transportation Planner, DCHC MPO

# Today's Presentation

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- Introduce performance measures to Technical Committee (TC) and MPO Board
- This presentation does not have complete Goals/Objectives/Performance Measures table – see separate document in agenda packet
- No action today – staff want TC and MPO Board feedback

# 2050 MTP Milestones



# Alignment of Goals/Objectives/Performance Measures



DCHC MPO Board already approved Goals and Objectives for use in 2050 MTP process

Next step is to review proposed Performance Measures

DCHC Goals	DCHC Objectives	Performance Measures
<b>III.</b> Connect People and Places	a) Increase mobility options for all communities -- particularly communities of concern	a) Percentage of work and non-work trips by transit less than 40 minutes (by MPO, and by low-income, minority and zero-car households).
	b) Achieve zero disparity of access to jobs, education, and other important destinations by race, income, or other marginalized groups	b) Percentage of work and non-work trips by auto less than 20 minutes (by MPO, and by low-income, minority and zero-car households).

- Above table is example excerpt from full table.
- See meeting packet for full table of Goals/Objectives/Performance Measures (3 pages)
- DCHC MPO and CAMPO have same Performance Measures

# Development of Performance Measures

- At least one Performance Measure for each Objective.
- Objectives without a Performance Measure
  - Can't find valid and reliable measure
  - Measure is too costly to produce (e.g., staff time, data purchase)
  - Staff will continue search for measure in the future  
(example: access to pedestrian facilities; total investment in bicycle facilities)
- Objectives with multiple Performance Measures
  - Performance Measures considered strong; Objective considered important
  - Performance Measure relatively easy to produce

# Development of Performance Measures (cont.)

- Equity measures included when geographical data available
  - Measures include: length of work trips and transit trips; mode share; travel delay; and, bicycle/pedestrian safety
  - 2050 MTP Environmental Justice report to assess distribution of investment
- Federal Transportation Performance Measures (TPM) are included
- There is a lot of data
  - 8 Goals → 24 Objectives → 21 sets of Performance Measures → 77 values

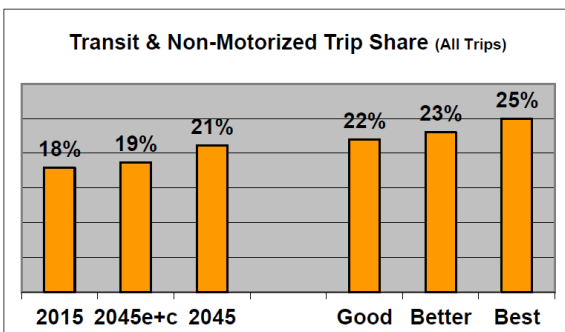
# Use of Performance Measures

MPO will use for Deficiency Analysis, Alternatives Analysis, and Preferred Option. In 2045 MTP final report...

## 1- Table with results and trend

Goals	Objectives	Performance Measures	Data	Desired	Actual	Trend
I. Protect Environment and Minimize Climate Change	A. Reduce mobile source emissions, GHG, and energy consumption	1. Total and per capita transportation GHG (CO <sub>2</sub> ), ozone (NO <sub>x</sub> ), CO, and particulate matter emissions (in kilograms; August)	<b>Total</b> (five-county area inside TRM) 2013 CO <sub>2</sub> : 16.8m    2045 CO <sub>2</sub> : 17m 2013 NO <sub>x</sub> : 26,807    2045 NO <sub>x</sub> : 5,698 2013 CO: 209,762    2045 CO: 107,392 2013 PM: 646    2045 PM: 268	↓	↓	-46%
			<b>Per Capita</b> (five-county area inside TRM) 2013 CO <sub>2</sub> : 13.7    2045 GHG: 7.6 2013 NO <sub>x</sub> : 0.022    2045 NO <sub>x</sub> : 0.003 2013 CO: 0.17    2045 CO: 0.05 2013 PM: 0.001    2045 PM: 0.0001	↓	↓	-70%
	2. Total and per capita mobile energy consumption (daily gallons of auto gasoline)	<b>Total</b> (five-county area inside TRM) 2016: 1.8m    2045: 1.8m	↓	↓	-9%	
		<b>Per Capita</b> (five-county area inside TRM) 2016: 1.44    2045: 0.8	↓	↓	-42%	

**↑ Increase Transit and Non-automobile Trip Share (All Trips)**

Why Increase This Share?	How to Increase Transit & Non-Motorized Share?	Trends and Targets														
<ul style="list-style-type: none"> <li><b>Reduce Pollution</b> – Automobiles are major emitters of carbon monoxide, nitrogen oxides (ozone precursor), carbon dioxide (greenhouse gas), and several other toxins that are linked to increased health ailments or climate change.</li> <li><b>Reduce Congestion</b> – The percent of congested peak travel miles in the Triangle has risen steadily the last several decades.</li> </ul>	<ul style="list-style-type: none"> <li><b>Transportation</b> – Increase investment in transit, bicycle and pedestrian facilities and programs.</li> <li><b>Transportation</b> – Require bicycle and pedestrian facilities on new and improved roadways, as appropriate.</li> <li><b>Ordinance</b> – Require transit, bicycle and pedestrian facilities and supportive design in new and renovated developments.</li> <li><b>Land Use</b> – Permit more concentrated residential and employment development along key travel corridors.</li> <li><b>Land Use</b> – Permit more mixed-use development.</li> </ul>	<p><b>Transit &amp; Non-Motorized Trip Share (All Trips)</b></p>  <table border="1"> <caption>Transit &amp; Non-Motorized Trip Share (All Trips)</caption> <thead> <tr> <th>Year/Target</th> <th>Trip Share (%)</th> </tr> </thead> <tbody> <tr> <td>2015</td> <td>18%</td> </tr> <tr> <td>2045e+c</td> <td>19%</td> </tr> <tr> <td>2045</td> <td>21%</td> </tr> <tr> <td>Good</td> <td>22%</td> </tr> <tr> <td>Better</td> <td>23%</td> </tr> <tr> <td>Best</td> <td>25%</td> </tr> </tbody> </table>	Year/Target	Trip Share (%)	2015	18%	2045e+c	19%	2045	21%	Good	22%	Better	23%	Best	25%
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2- Selected 8 key measures, created targets, and developed one-page narrative for each measure.

# Use of Performance Measures (continued)

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## Possible broader application for Performance Measures?

- Use Performance Measures with any process that is to be related to the Goals/Objectives. For example UPWP (Unified Planning Work Program) and CMP (Congestion Management Plan).
- Create Web page dashboard using several key Performance Measures



- Today... staff want feedback from TC and MPO Board on proposed Performance Measures
- MPO will use Performance Measures for upcoming milestones: Deficiency Analysis, Alternatives Analysis, and Preferred Option
- Later in MTP process...
  - develop broader applications, i.e., set Targets for ongoing dashboard
  - Adopt Performance Measures with Goals/Objectives