

Socioeconomic Data Workgroup Meeting



April 6, 2023
2:00 p.m.

Agenda

Welcome and Introductions

1. Roll Call
2. Approval of July 2022 Meeting Summary
3. Open Public Comment Period
4. Horizon Year (2050) Baseline Projections Methodology Recap
5. Horizon Year (2050) Baseline Data Approval
6. SE Data Dashboard & Story Map
7. Beyond the Baseline Projection – Scenarios Development
8. Closing

Agenda Item 4

Horizon Year (2050) Baseline

Projections Methodology Recap

Proposed Basic Methodology

- 2050 horizon year baseline data developed using 2017 data (ignoring Covid implications) and reviewing the Census 2020 population numbers.
- Top-Down Approach. Developed Jurisdictional Control total first, then distributed to TAZs.
- Distributed to TAZs based on current trends.
- Population and Employment two independent projections. Other attributes directly dependent on population.
- If no data is available for the future, variable were kept constant as the Base Year (or 2020 Census data as applicable).

Population

- Established Countywide Control Total first
- Localities were able to use Weldon Cooper 2050 thresholds: +/- 10% variance without providing supporting documentation.
- RRTPO staff also developed cohort component model by 5-year age cohort and sex for 5-year intervals.

Population

Jurisdiction	Population					
	2017	Census 2020	2050	Weldon Cooper Difference	Total Growth Rate (2017-2050)	Annual Growth Rate (2017-2050)
Ashland ¹	7,785	7,565	8,822	-	13.30	0.40
Charles City	7,126	6,773	6,552	10.00%	-8.06	-0.24
Chesterfield	340,848	364,548	504,814	0.00%	48.11	1.46
Goochland	23,536	24,727	34,742	0.00%	47.61	1.44
Hanover ²	109,595	109,979	142,156	1.46%	29.71	0.90
Henrico	335,283	334,389	422,954	0.00%	26.15	0.79
New Kent	21,347	22,945	36,081	0.00%	69.02	2.09
Powhatan	29,147	30,333	39,576	0.00%	35.78	1.08
Richmond	224,798	226,610	278,538	3.00%	23.91	0.72
Region Total	1,091,680	1,120,304	1,465,413	0.74%	34.23	1.04

¹Ashland displayed here separately, but also included as a part of Hanover County

²Hanover County Includes Town of Ashland

Population Distribution

- For each jurisdiction, the net difference of the base year population and the future year population was calculated to get the exact new population which needs to added.
- We assumed that in the future year each TAZs retains at least the same population as its base year (except for Charles City County).
- Firstly, the TAZ population growth was based on major development projects. This information was either provided by the jurisdiction or researched from online and print media and press releases.
- The remaining distribution was done by reviewing various factors:
 - 2045 TAZ level distribution and potential new changes since the data was developed
 - Review of the locality Comprehensive Plans (including those being currently developed)
- This distribution of population in the TAZs was further reviewed by jurisdictional staff and in some cases tweaked based on local knowledge

Housing Units/Households

- Calculated Households (Occupied Housing Units) from Population in Housing Units
- Established Average household size – Kept fractionally smaller or constant as 2020 Census numbers
 - TAZ level for TAZs having population in 2020
 - Countywide for TAZs not having Population in 2020
- Established Vacancy Rates to get Housing Units.
- Vacancy Rates kept constant as 2020 Census numbers
 - TAZ level for TAZs having population in 2020
 - Countywide for TAZs not having Population in 2020

Housing Units/Households

Jurisdiction	2050 Housing Characteristics					
	Population In Housing Units	Housing Units	Households (Occupied Housing Units)	Vacant Units	Vacancy Rates	Average Household Size
Ashland ¹	7,604	3,763	3,511	252	6.70	2.17
Charles City	6,552	2,892	2,643	249	8.61	2.48
Chesterfield	499,044	191,692	184,489	7,203	3.76	2.71
Goochland	33,825	14,373	13,323	1,050	7.31	2.54
Hanover ²	140,085	55,470	53,103	2,367	4.27	2.64
Henrico	418,846	177,175	168,992	8,183	4.62	2.48
New Kent	35,509	14,478	13,712	766	5.29	2.59
Powhatan	38,501	16,198	14,808	1,390	8.58	2.60
Richmond	266,920	141,740	129,582	12,158	8.58	2.06
Region Total	1,439,282	614,018	580,652	33,366	5.43	2.48

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Group Quarters

- 2017 Group Quarters based on 2010 Census
- Most Group Quarters population decreased during/after Covid-19 pandemic.
- 2050 Group Quarters Kept constant as 2020 Census.

Jurisdiction	Group Quarters	
	Group Quarters (2017)	Group Quarters (2050)
Ashland ¹	1,465	1,218
Charles City	0	0
Chesterfield	4,651	5,770
Goochland	724	917
Hanover ²	2,918	2,071
Henrico	6,887	4,108
New Kent	607	572
Powhatan	1,997	1,075
Richmond	14,496	11,618
Region Total	32,280	26,131

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K-12 School/College Enrollment

K-12 School

- For the K-12 schools the growth is mostly accounted for in public school enrollment.
- Private school enrollment kept constant to the 2017 base year (or current enrollment) unless projections numbers were received from individual entities.
- School enrollment hugely impacted due to Covid – 19 Pandemic as Drop-Out Rates, Home Schooling Rates and Religious Exemption Rates increased in 2020 and 2021 as compared to 2017.
- Added new dimension – Mode of Instruction - In person, Remote and Hybrid for 2020 and 2021.
- RRTPO developed a cohort component model which gives the future population by age cohort and gender
- The total school age children (age ranges 5-9, 10-14 and 15-19) calculated using the cohort component model.
- RRTPO staff decided to ignore 2020 and 2021 enrollments and kept drop-out rates, home school rates and religious exemption rates same as 2017 and mode of instruction only – In person.
- Adjusting factor (constant) calculated for each jurisdiction.
- Added private school enrollments.

College

- RRTPO staff reached out or did a web research on any potential projections for college and universities. College Master Plans/New College announcements.
- Kept 2017/current enrollment if no feasible projection data available.

K-12 School/College Enrollment

Jurisdiction	K-12 School/ College Enrollment			
	2017 K-12	2050 K-12	2017 College	2050 College
Ashland ¹	713	776	1,418	1,477
Charles City	650	473	0	0
Chesterfield	62,779	77,677	20,985	22,272
Goochland	2,925	4,182	531	531
Hanover ²	18,226	19,843	1,418	1,477
Henrico	57,860	74,880	11,490	12,378
New Kent	3,336	6,102	100	310
Powhatan	4,635	6,362	0	0
Richmond	29,536	42,990	41,746	41,809
Region Total	179,947	232,509	76,270	78,777

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Employment

- RRTPO staff developed the employment control total by jurisdiction and by 2-digit NAICS code (by sector).
- Based on previously developed model by Chmura Economics and RRTPO.
- Uses RRTPO historic data and local, regional and national trends.
- The Individual 2-digit NAICS control-totals were developed first and aggregated to get the Jurisdictional total.
- Baseline Employment Projection – Major development projects added (1000 + Jobs).
 - Costar – Richmond (2,000 Jobs)
 - Lego – Chesterfield (1,761 Jobs)
 - Project Rocky – Goochland (1,000 Jobs)

Employment

Jurisdiction	Employment			
	2017	2050	Total Growth Rate (2017-2050)	Annual Growth Rate (2017-2050)
Ashland ¹	8,636	13,408	55.26	1.67
Charles City	1,668	1,850	10.91	0.33
Chesterfield	131,120	186,051	41.89	1.27
Goochland	13,966	21,704	55.41	1.68
Hanover ²	50,625	68,361	35.03	1.06
Henrico	191,240	246,718	29.01	0.88
New Kent	3,956	6,299	59.23	1.79
Powhatan	6,092	7,704	26.46	0.80
Richmond	152,044	178,256	17.24	0.52
Region Total	550,711	716,943	30.18	0.91

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Employment Distribution

- For each jurisdiction, the net difference of the base year employment and the future year employment was calculated to get the exact new employment which needs to added.
- We assumed that in the future year each TAZs retains at least the same employment as its base year.
- Firstly, the TAZ employment growth was based on major development projects in the pipeline. This information was either provided by the jurisdiction or researched from online and print media and press releases.
- Information on the type of the commercial activity and the and the total area or square footage. The square footage was converted into number of employees based on industry standards
- The remaining distribution was done by reviewing various factors:
 - 2045 TAZ level distribution and potential new changes since the data was developed.
 - Review of the locality Comprehensive Plans (including those being currently developed).
- This distribution of population in the TAZs was further reviewed by jurisdictional staff and in some cases tweaked based on local knowledge.

Autos

- RRTPO staff did a significant research on local, regional and national, current and future trends on auto ownership.
- The current trends show an increase on the auto-ownership rates (autos/household) in the last decade but decline on future auto-ownership rates by many research papers
- Staff developed 2050 autos based on auto-ownership rates. It was kept slightly less or constant as 2017.

Jurisdiction	Autos	
	2017	2050
Ashland ¹	4,954	6,139
Charles City	8,672	7,973
Chesterfield	293,337	432,400
Goochland	23,485	34,571
Hanover ²	97,794	128,181
Henrico	279,241	356,989
New Kent	21,868	37,432
Powhatan	29,566	41,963
Richmond	129,444	159,489
Region Total	883,407	1,198,998

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Agenda Item 5

Horizon Year (2050) Baseline Data

Approval

SE Data Documents

Richmond Regional Transportation Planning Organization

Socioeconomic Data Report for the 2017 Base Year and 2050 Forecast Year

Executive Summary



Prepared by PlanRVA



Richmond Regional Transportation Planning Organization

Socioeconomic Data Report for the 2017 Base Year and 2050 Forecast Year



Prepared by PlanRVA



2050 Future Year Summary Table

2050 Forecast Year Data											
Jurisdiction ¹	Population			Housing		Autos	School Enrollment		Employment		
	Total	In Households	In Group Quarters	Housing Units	Households (Occupied Housing Units)		K-12	Colleges	Total	Retail	Non-Retail
Ashland ²	8,822	7,604	1,218	3,763	3,511	6,139	776	1,477	13,408	4,953	8,455
Charles City	6,552	6,552	0	2,892	2,643	7,973	473	0	1,850	113	1,737
Chesterfield ³	504,814	499,044	5,770	191,692	184,489	432,400	77,677	22,272	186,051	45,719	140,332
Goochland	34,742	33,825	917	14,373	13,323	34,571	4,182	531	21,704	2,091	19,613
Hanover ⁴	142,156	140,085	2,071	55,470	53,103	128,181	19,843	1,477	68,361	16,543	51,818
Henrico	422,954	418,846	4,108	177,175	168,992	356,989	74,880	12,378	246,718	53,576	193,142
New Kent	36,081	35,509	572	14,478	13,712	37,432	6,102	310	6,299	1,336	4,963
Powhatan	39,576	38,501	1,075	16,198	14,808	41,963	6,362	0	7,704	1,886	5,818
Richmond	278,538	266,920	11,618	141,740	129,582	159,489	42,990	41,809	178,256	26,762	151,494
Region Total	1,465,413	1,439,282	26,131	614,018	580,652	1,198,998	232,509	78,777	716,943	148,026	568,917

¹Includes all jurisdictions in Planning District 15 (i.e. RRTPO Metropolitan Planning Area and Tri-Cities Area MPO portion of Chesterfield)

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³Chesterfield County TAZs are located in both the RRTPO and Tri-Cities MPO

⁴Includes the Town of Ashland

2050 Future Year Data Approval

The following resolution is presented for the Socioeconomic Data Workgroup:

The Socioeconomic Data Workgroup approves the 2050 Future Year Data at the Traffic Analysis Zone (TAZ), Jurisdictional and Regional levels and recommends RRTPO Technical Advisory Committee (TAC) to approve the data as it is presented by RRTPO Staff.

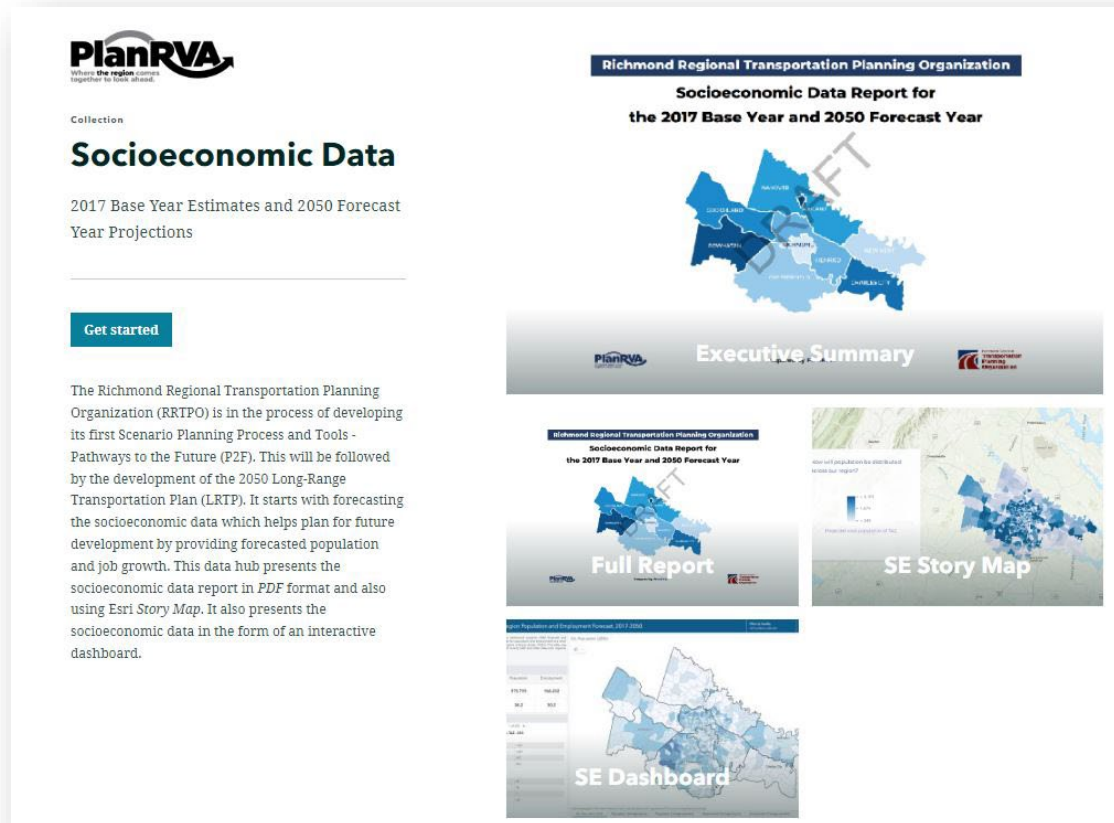
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Socioeconomic Data Dashboard

&

Story Map

SE Data GeoHub Link



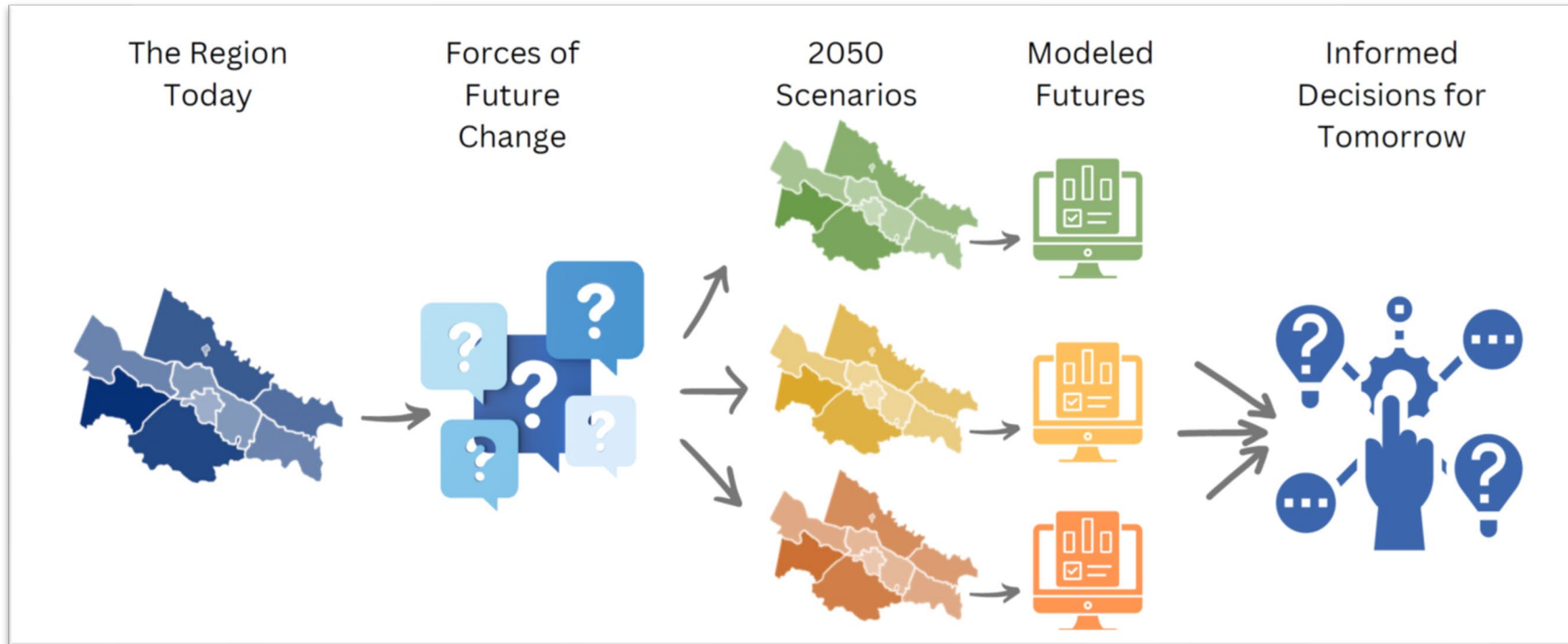
<https://storymaps.arcgis.com/collections/001ffbf9a90d246ab9a8ed3f29cae9dbb>

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Beyond the Baseline Projections: Scenarios Development

Scenario Planning – Pathways to the Future

- **RRTPO is working on the first Scenario Planning Process for the Richmond region**
- **Purpose**
 - Develop an Analytical Toolkit
 - Perform a Stress Test of different futures
 - Shape Policy Directions



2050 Baseline Vs Other Scenarios

Baseline Scenario

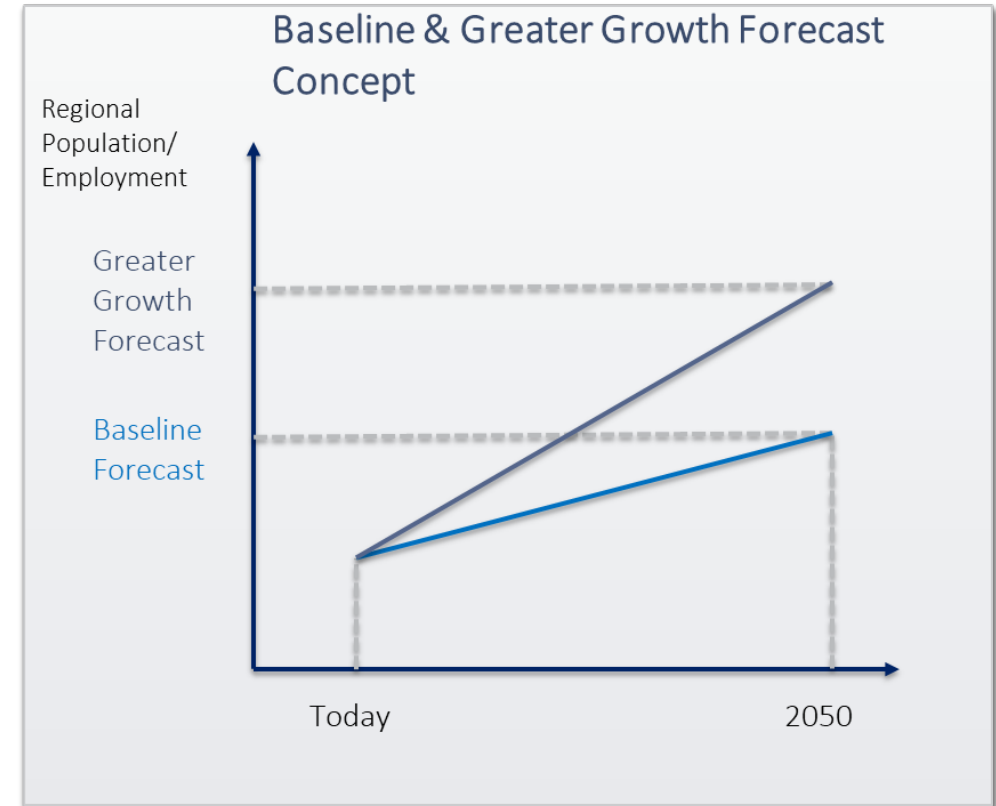
- Cooperative process involving PlanRVA staff, locality staff and other partners. Vetted by localities, (to be) approved by RRTPO Policy Board.
- Baseline Scenario developed primarily using 2017 data (ignoring Covid implications)
- Aligns with locality Comprehensive Plans.
- 34 Percent Population growth and 30 Percent Employment growth over a period of 33 Years.
- Overall Growth projections could be considered as relatively **conservative**.

Other Scenarios

- Scenarios could explore what happens if growth goes beyond the 2050 Baseline.
- Scenarios could explore different ways that growth could occur.

Scenarios Framing Elements

- **Economic growth is often a framing concept for Greater Growth**
 - Provides more jobs and population to vary among scenarios
 - Provides more of a “stress test” on transportation and the environment
- Other framing concept for Greater Growth
 - Environmental Migration
 - Housing Affordability
 - Economic Hub
 - Flexible Immigration Policy
 - Nearness to DC
- Other frameworks focus on variations in the vision of the future (utopia/dystopia)



Scenarios Framing Elements

Land Use Patterns as Framing Concepts

- More/ less compact/sprawling?
- More / less resilient and adaptive to outside forces?
- More/ less influenced by Technology? Climate? Politics, etc.?
- More/less share of the Rural Localities?
- More growth Inside the Outer Loop?
- More growth between the Inner and Outer Loop?
- More growth outside the Outer Loop?
- More focused on highway and Transit Corridors?
- What land use patterns are both plausible and would provide good stress tests of regional growth?



Scenarios Framing Elements

Population and Employment Share For Large and Rural Localities (2017 & 2050)

Year	Population Share		Employment Share	
	Large Localities	Rural Localities	Large Localities	Rural Localities
2017	93%	7%	95%	5%
2050	92%	8%	95%	5%

	Large Localities	Rural Localities	Total
Population Increase Share	337,938	35,795	373,733
	90%	10%	100%
Employment Increase Share	154,357	11,875	166,232
	93%	7%	100%

Population Growth Component (2010 -2020)

2020 Total Population	2010 Total Population	Population Growth (2010-2020)	Birth - Death (2010-2020)	Net Migration
1,120,304	1,004,696	115,608	37,565	78,043
			32%	68%

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Closing

Closing

- SE Data Approval Schedule
 - SE Data Workgroup – April 6, 2023
 - RRTPO TAC – April 11, 2023
 - RRTPO Policy Board – May 4, 2023
- SE Data Workgroup members to follow up with their respective RRTPO TAC members and recommend them to approve the 2050 Future Year Data in their next meeting (April 11, 2023).
- SE Data Workgroup members to provide any ideas for the development of Scenario Narratives for the Scenario Planning Project - **Pathways to the Future (P2F)** in the next 2-3 Weeks.

Thank You!

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