



Saint Cloud
Area Planning Organization

1040 County Road 4, St. Cloud, MN 56303-0643

(320) 252-7568 • (320) 252-6557 (FAX) • E-mail: admin@stcloudapo.org • www.stcloudapo.org

AGENDA

Technical Advisory Committee

Thursday August 3, 2017

Stearns County Highway Department

1. Consider Minutes of May 4, 2017 and June 21, 2017
 - a. Suggested Motion: Recommend Approval
2. TSM 2015 Base Data
 - a. Suggested Motion: Recommend Approval
3. 2045 Population Projections by City
 - a. Suggested Motion: Recommend Approval
4. Other Business / Open Floor
5. Adjournment

St. Cloud APO meeting facilities will be accessible to mobility impaired individuals. If translation or interpretative services are required, the St. Cloud APO will make a good faith effort to accommodate these requests if time and resources permit. Please contact Dorothy Sweet at the St. Cloud APO 320-252-7568 at least three days in advance of the meeting if these special accommodations are required.

**St. Cloud Area Planning Organization
TECHNICAL ADVISORY COMMITTEE MINUTES
May 4, 2017**

A regular meeting of the St. Cloud Area Planning Organization's (APO) Technical Advisory Committee (TAC) was held on Thursday, May 4, 2017 at Stearns County Public Works. Mr. Joseph Mueller, Senior Transportation Planner, presided with the following members present:

Chris Byrd	Benton County
April Ryan	SEH/Sartell
Jodi Teich	Stearns County
Matt Glaesman	St. Cloud
Tom Cruikshank	Metro Bus
Brian Gibson	St. Cloud APO
Joseph Mueller	St. Cloud APO
Dorothy Sweet	St. Cloud APO

The meeting was called to order at 10:07 a.m. Mr. Mueller stated that according to the APO TAC Bylaws, a quorum for the TAC meeting constitutes the number of members who are in attendance.

TAC MEETING MINUTES OF FEBRUARY 2, 2017:

Mr. Glaesman motioned to approve the February 2, 2017 TAC meeting minutes, and Ms. Teich second the motion. Motion carried.

UPDATED 2017-2021 APO TIP (for MnDOT 2018-2021 STIP)

Mr. Mueller said that approval of the TIP is necessary because the St. Cloud APO TIP is developed on a 5-year cycle, and the MnDOT STIP is developed on a 4-year cycle and, therefore, the APO does a TIP update to synch up projects with the State of Minn STIP. Mr. Mueller received agreement from Paula at Metro Bus. No concerns were expressed by the TAC. Mr. Mueller added that we may be doing an amendment for Metro Bus later on this summer. Ms. Teich motioned to approve the Updated 2017-2021 TIP, and Mr. Cruikshank seconded the motion. Motion carried.

APO UPWP PROJECTS:

Mr. Gibson, APO Executive Director, said he is working on the APO's annual budget and work plan (UPWP) for 2018. As he develops the budget, he asked for guidance from the TAC members as to what projects should be included. In 2016 three consultant-lead projects were identified for programming in 2018 (Access Management Plan, Congestion Management Plan, and Intelligent Transportation Systems Plan), but Mr. Gibson asked if these projects are still needed or desired by the member jurisdictions. After some discussion among the members, it was decided that those three projects did not need to be included in the UPWP, but instead gave other suggestions. Mr. Gibson said the APO may need some assistance in developing project costs as we do the LRTP and also some website assistance because our current website does not meet ADA criteria. Mr. Cruikshank suggested an update to their Transportation Plan because it is out of sync from other transportation plans and is more of a short term plan of up to 5 years.

At the time the Metro Bus did their plan, the two new high schools (Tech and Sartell) were not approved. Mr. Cruikshank said he would like to spend more time analyzing data and ridership information pertaining to St. Cloud State University as they seem to be pulling away from supporting transit since they are building more parking garages. Mr. Gibson said that because of staffing shortages in 2016, we could have up to \$100,000 available. Mr. Gibson and Mr. Cruikshank agreed to discuss this issue further next week. Mr. Byrd asked if there is a line item in the APO budget for planning grants. Mr. Gibson said there was approximately \$90,000 available last year and we have approximately \$85,000 after staff, rent, utilities, etc. MnDOT has not yet notified the APO how much there will be. Mr. Glaesman said St. Cloud could use the \$100,000 for updating several studies. Mr. Byrd added that Benton County will need additional funds for their ADA Transitional Plan. Ms. Teich said that after doing the Pavement Management project that we needed to make sure that information continues to get updated on a regular basis.

MnDOT FREIGHT INVESTMENT PLAN UPDATE:

Mr. Gibson announced that the FAST Act provides formula funding for freight projects.

Examples of these projects include:

Long term pavement fixes	Improving access to freight generating facilities
Bridge Work	ITS
Turn Lanes, bypass lanes	Traffic signal optimization
Adding or widening shoulders	Rail-highway grade separations
Geometric improvements	Truck parking rest areas
Capacity increases	Upgrading to a 10-ton road

There is a 20% match requirement for these funds and the funds must be spent on the National Highway Freight Network. However, the designated freight corridors have not yet been identified. For now, the State is willing to identify the projects first and then designate the corridors as a Critical Urban Freight Corridor (CUFCs). The APO recently procured consultant assistance to help identify first mile/last mile CUFCs for the APO region. Mr. Gibson asked for feedback for designating projects and corridors in our region.

TSM 2015 BASA DATA:

Mr. Gibson reported that as we update the LRTP, we need to update the traffic model to a new base year and to project Traffic Analysis Zone (TAZ) data out to 2045. SRF is working on that projection for the APO, and the information will be brought to the TAC later on. Mr. Gibson explained the process that our former Planning Technician used to create the charts which showed changes from Base Year 2010 to the Draft Base Year 2015. This information is being presented for your consensus that this data appears to be correct. Next month we will require your approval on this. Please let Mr. Gibson or Mr. Mueller of any questions, changes or concerns. Mr. Mueller agreed to send Mr. Glaesman the TAZ map.

POPULATION PROJECTIONS BY TAZ:

Mr. Gibson reported that the APO recently contracted with SRF to develop the required socio-economic data projects by TAZ for 2045. SRF will build upon the 2040 TAZ data. Pending approval of the 2015 data, the TAC will likely see a draft 2045 population and job distribution between jurisdictions at the June meeting and a draft 2045 TAZ allocation at the August meeting.

US CENSUS ADDRESS VERIFICATION:

Mr. Gibson discussed the recent invitation from the US Census Bureau to participate in a Local Update of Addresses Operation (LUCA), which is a review of the Census Bureau's address list prior to the 2020 Census. Mr. Gibson asked if this is something that the APO typically takes the lead on. Mr. Glaesman responded that this is something the City of St. Cloud typically does and is not done by the APO.

OTHER BUSINESS:

The next TAC meeting will be held on Thursday, June 1.

ADJOURNMENT:

The meeting was adjourned at 10:39 a.m.

St. Cloud Area Planning Organization
TECHNICAL ADVISORY COMMITTEE MINUTES
June 21, 2017

A regular meeting of the St. Cloud Area Planning Organization's (APO) Technical Advisory Committee (TAC) was held on Wednesday, June 21, 2017 at Stearns County Public Works. Mr. Joseph Mueller, APO Senior Transportation Planner, presided with the following members present:

Chris Byrd	Benton County
Andrew Witter	Sherburne County
Jodi Teich	Stearns County
Jon Halter	SEH/Sartell
Jon Mason	MnDOT, Dist #3
Randy Sabart	SEH/Saint Joseph
Tom Cruikshank	Metro Bus
Todd Schultz	Sauk Rapids
Kelvin Howieson	MnDOT
Brian Gibson	Saint Cloud APO
Joseph Mueller	Saint Cloud APO
Vicki Ikeogu	Saint Cloud APO
Doug Diedrichsen	Saint Cloud APO
Dorothy Sweet	Saint Cloud APO

Mr. Mueller introduced the newest APO staff members to the Committee, Vicki Ikeogu-Transportation Planner I and Doug Diedrichsen, GIS/Multi-Modal Planner.

MINUTES OF MAY 4, 2017 TAC MEETING:

Approval of the May 4 TAC meeting minutes was delayed to allow members sufficient time to review the minutes.

TSM 2015 BASE DATA:

The 2015 TSM Base Data was compiled by the Planning Technician before he retired in April. This data is an important component of the 2045 Long Range Transportation Plan (LRTP). Mr. Schultz raised concerns about the accuracy of the Sauk Rapids data and felt there were some residential units missing, and asked if there was urgency in obtaining approval of this. He also stated that he thought there was some concern expressed last month about Saint Cloud's information. Mr. Gibson responded that we would be unable to start the calibration process until this is approved.

Mr. Schultz motioned to approve the TSM 2015 Base Data contingent upon receiving updated data from Sauk Rapids and Saint Cloud. Ms. Teich seconded the motion. Motion carried.

2045 POPULATION PROJECTIONS BY CITY:

Mr. Diedrichsen provided a Powerpoint presentation covering this topic. SRF has developed a population forecast to the target year of 2045. The highlights of Mr. Diedrichsen's presentation included:

- The study area includes municipalities of Saint Cloud, Sauk Rapids, Sartell, Saint Joseph, Waite Park, Saint Augusta, and Unincorporated areas of the counties of Stearns, Benton and Sherburne counties within the APO planning boundary.
- The forecasts are derived from the US Census.
- Population changes for the years 2009-2015 were used to establish average growth rates for each jurisdiction. The projections assume that each jurisdiction will continue to grow at its average rate based on the last six years of growth..

- Collectively, the cities have experienced an average annual growth rate of approximately 1.5% over the last six years. Each city's percent growth as well as the city's share of municipal APO growth was shown. Sartell had a 19% growth increase, while Saint Cloud showed a 6% growth increase. In 2012 and 2014 Saint Cloud and Waite Park declined in population.
- To calculate growth in Unincorporated areas of APO, the area within the APO planning areawas divided by the total block group area resulting in a ratio. This ratio was then multiplied by the total block group population to determine an estimated population within the APO planning area. The APO's 2015 unincorporated population was approximately 4,556 and the 2015 observed population for the APO's jurisdiction was approximately 120,000.
- Sartell is expected to grow 76% larger by 2045 and have the largest share of growth of the cities in the APO planning area.
- Unincorporated Areas are forecasted to grow slightly – around 5%.
- Municipalities in the APO should be proactive and communicative in the anticipation of future development.
- While the population forecast assumes that the APO planning boundary will remain static throughout the plan horizon, it is recognized that growth within and around the cities in the APO will likely change.

Mr. Schultz expressed his concern about the accuracy of the Sauk Rapids forecast since so many apartments are being built that Sauk Rapids is already at the 2025 predicted level and has been very consistent in its growth rate. He also expressed concern that that the statistical model being used includes the time period of the recession which may not be a true reflection of average growth rates. Mr. Diedrichsen explained that the method assumes there will be ups and downs in population growth in each jurisdiction. Mr. Gibson noted that no one can accurately predict the future, so we are looking for “reasonableness”. Mr. Gibson said that TAC members need to be comfortable with these numbers and once the population forecast numbers are accepted, SRF will distribute to TAZ zones to be able to run the model for 2045. The best we can do is reasonable for purposes of transportation traffic model. Mr. Byrd noted that there is some discrepancy in the numbers in the SRF memo, in particular for Watab Township, which he thought were quite low.

All jurisdictions who felt the data was inaccurate were requested to get their revised data to the APO and the APO will forward the info to SRF. Approval of the population projections will be made after the revised data is sent in and incorporated into SRF's projections.

DRAFT 2018 UNIFIED PLANNING WORK PROGRAM:

Mr. Gibson reviewed the APO's 2018 draft work plan and budget. The member assessments, which are based on population, will remain the same as 2017. To keep assessment rates low, APO investment interest income is being used. Mr. Gibson briefly reviewed the UPWP Objectives, Funding Sources, Revenue Sources, Budgeting of Overhead and Indirect Costs. He also reviewed the major categories, planned activities and projects, including those which APO staff will be providing assistance such as Administration, Budget and UPWP, Transportation Improvement Program, Transportation System Performance Monitoring, Transportation Project Development, Long Range Transportation Plan, Bicycle/Pedestrian Planning, Transit Planning, Transportation Planning Coordination and Meetings, Transportation Modeling, Mapping & Support, and Locally Funded Activities. Ms. Teich noted that there was a typo in the 2018 Budgeted Funding column under Bicycle/Pedestrian Planning. Special projects planned for 2018 include an APO website update for ADA compliance, Travel Demand Model Support, Saint Cloud CSAH 75 Corridor Study Refresh and Benton County ADA Transition Plan. Mr. Gibson commented that the APO has not spent all of its federal funds in the last few years. While we were instructed by MnDOT to program those funds, we will not receive those unspent funds until MnDOT has completed an audit, at which time the funds can then be released.

Ms. Teich motioned to approve the 2018 UPWP pending the correction in the Bicycle/Pedestrian Planning section, and Mr. Schultz seconded the motion. Motion carried.

FREIGHT PLANNING UPDATE:

Mr. Gibson updated the members regarding the current status of our freight planning efforts. SRF is assisting the APO with this project by concentrating on first and last mile connections. However, connections between corridors can be just as critical. SRF is looking at criteria for identifying critical rural freight corridors and urban corridors.

STEARNS COUNTY ADA PLAN:

Mr. Gibson reported that the APO provided funding for the Stearns County ADA Plan, which has already been approved, but needs the APO's acceptance of the document. All Stearns County intersections were reviewed for ADA compliance and sorted into three priority tiers using five or six criteria. Ms. Teich stated that their plan focuses on roadways and that Tier I (locations that are fully compliant) will be updated and reviewed yearly, and that she is the designated ADA Title II Coordinator to oversee the County policies and procedures. She also noted there was very little public participation at the public input meetings.

Mr. Witter motioned to accept the Stearns County ADA Plan, and Mr. Byrd seconded the motion. Motion carried.

Mr. Gibson stated that at this year's MnDOT mid-year review, FHWA stressed that they are concentrating on ADA compliance. The goal is that each MPO will certify that our members are compliant. Mr. Howieson noted that State Aid will be requiring some sort of letter from county and city engineers that they are actively completing transition plans. Mr. Cruikshank asked that Metro Bus be placed on the list for assistance with ADA transition as did Mr. Schultz from Sauk Rapids. Mr. Byrd said that he was unable to confirm that all buildings in Benton County are ADA compliant, though they may be. Mr. Gibson said the APO's federal planning dollars cannot be spent on all aspects of ADA compliance, only for compliance of roadways and sidewalks.

SARTELL 15TH STREET CORRIDOR STUDY:

Sartell's population has increased 65 percent since 2000. Part of the city's future transportation network includes the extension of 15th Street North between Pinecone Road and 30th Avenue North (aka, Townline Road). This study was commissioned to better understand the feasibility and design of constructing the roadway extension to accommodate growth in the area. Mr. Halter said the study was not controversial and hopes to provide some relief to 19th Avenue. Four alternative alignments were considered as well as their feasibility and impacts. The impacts included social, economic, environmental and cost. Mr. Gibson gave his understanding of the preferred alternative—Alternative A (a direct east-west connection between Pinecone Rd and 30th Ave No, while minimizing the overall right of way impacts to adjacent properties. This connection supports a "transportation grid" system by avoiding curvatures or indirect connections to North-South routes). Mr. Halter expressed his concern about delivering the project on the section line. Right of Way was included in the costs. Mr. Halter stressed that this is a planning document and that some design deviations may occur as it gets closer to construction.

Ms. Teich motioned to accept the planning document with the understanding that some deviations may occur, and Mr. Halter seconded the motion. Motion carried.

LOCAL HUMAN SERVICES TRANSIT COORDINATION PLAN:

Mr. Jon Mason, MnDOT Dist #3/Region 7W Transportation Planner, gave a Powerpoint presentation on the update of Region 7W/APO Local Human Service Transit Coordination Plan. Four counties were considered in this plan (Stearns, Benton, Sherburne and Wright). Mr. Mason reviewed the purpose, scope of work, planning area, types of coordination, plan review, questionnaire/survey and focus group responses, transportation service assessment, planning workshop, strengths and weaknesses, top strategies to improve transit coordination, project ideas and next steps. Mr. Gibson added that one of the biggest issues is lack of a regional mobility

manager. He also added that since we (APO) are a regional body, the APO might consider this, pending board approval and the position defined. A project idea summary of effort vs impact was distributed and reviewed.

Ms. Teich motioned to accept the Local Human Services Transit Coordination Plan assuming there are no changes, and Mr. Byrd seconded the motion. Motion carried.

OTHER BUSINESS:

- Mr. Mueller presented a request from Metro Bus to amend the FY 2017 TIP for a technology project. Mr. Witter noted an error in the spreadsheet containing the new Metro Bus information.

Mr. Byrd motioned to approve the TIP Amendment, and Ms. Teich seconded the motion. Motion carried.

- Mr. Mueller said that since the APO is finally fully staffed and projects are starting to take off, we will be returning to monthly TAC meetings on the first Thursday of each month starting with August 3. The meetings will continue to take place at the same location at 10:00 a.m.
- Mr. Howieson said they are in the process of finalizing the draft STIP. This will be sent out soon.

ADJOURNMENT:

The meeting was adjourned at 11:34 a.m.

To: Brian Gibson, Executive Director
St. Cloud Area Planning Organization (APO)

From: Cindy Gray, AICP, Principal
Scott Harmstead, AICP, Senior Associate
Christopher Clanahan, Planner

Date: July 26, 2017

Subject: St. Cloud APO Regional Transportation Planning Assistance, Element 2 – Revised Population Forecast

Revisions as a Result of TAC Comments

As a result of the APO TAC review of the draft population forecast provided by SRF, the following changes were made to the population forecast described in the body of this memo:

1. The projections were updated to reflect data between 2010 and 2016 rather than 2009 to 2015. The purpose for this change was to address the TAC's concern that the most recent growth rates were not being represented. This had only a minor impact on the total projected population; however, the growth share in the cities changed to some degree (refer to Table 2, page 7). Beyond updating the information by one year (to 2016), there does not appear to be any notable errors in the observed data; unless, the cities have valid evidence that both the Census and the State of Minnesota's estimates are unreasonable to rely upon.
2. There was a notable error in the data obtained for the unincorporated areas; thus, the committee's concerns of reliability were valid. Unfortunately, since the unincorporated areas do not follow standard statistical boundaries we needed to use the Census' geodatabase data. This requires the use of an extensive metadata which often misrepresent the population or quantity that is actually sought. This was the case here. We have now selected the correct metadata and updated the quantities accordingly within the memo (refer to pages 8-9, "APO's Unincorporated Areas").
3. Concern was raised about the accuracy in the use of American Community Survey data. To respond to this concern, the municipal population data has been sorted between ACS-sourced data and Minnesota Demographics Center data. Further response to this concern is detailed in the Introduction section.
4. In response to comments received, any assumption based from the data presented has been removed from the memorandum.

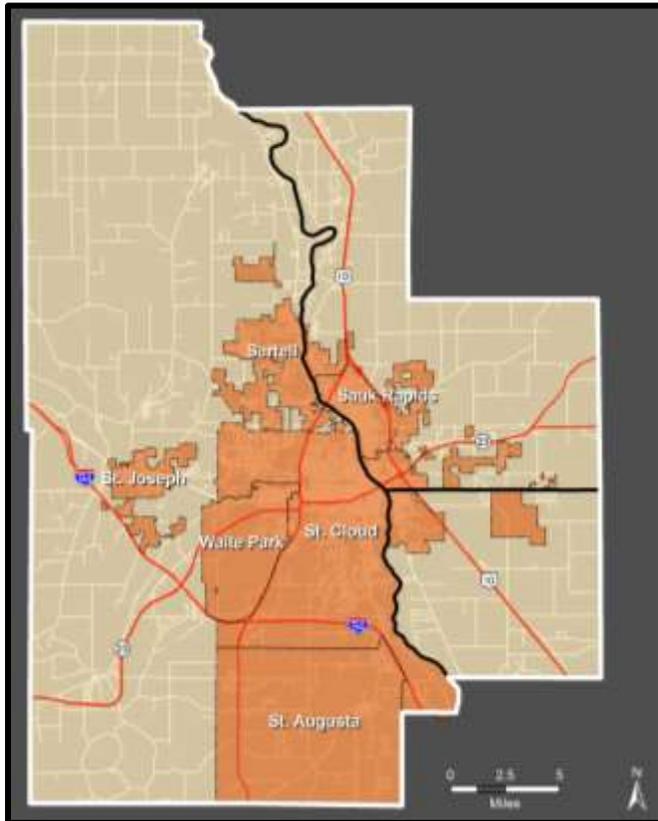
Introduction

SRF has developed a population forecast to the target year 2045 for the St. Cloud APO (Area Planning Organization) area. The forecasts are representative of the entire study area as illustrated in Figure 1, including the six municipalities shown (i.e. St. Cloud, Sartell, etc.). Note that the municipal boundaries as shown in Figure 1 were applied in the forecasts; these boundaries are derived from the U.S. Census, and are assumed to remain static during the forecast horizon (2045). This memorandum provides an overview of current growth and population, a breakdown of the forecast methodology, descriptions of forecast results, and a brief discussion of important considerations and next steps.

Data from both the U.S. Census (American Community Survey or “ACS”) and the Minnesota Demographic Center are shown - both sources are used for the purposes of the population projections. There are advantages to using both sources, for different reasons. ACS data is based on surveys that provide a sample of each geography defined by the census, down to the block group level. The state Demographic Center uses different methods and collects different data than the ACS for its one-year estimates (however, the state Demographic Center also works with the U.S. Census Bureau to produce the 10-year census). Unlike ACS data, state Demographics Center data does not go down to the block group level, only sub-county (cities and townships). The population projections needed for the St. Cloud APO require both sources of data for the following reasons:

1. Unincorporated areas of the APO do not fit into any of the geographies estimated by the state Demographic Center; therefore, ACS data was utilized to get to the block group level and provide a more precise estimate of the unincorporated areas of the APO.
2. The state Demographic Center provides 2016 population estimates for all cities in the APO boundaries. The latest estimates provided by the ACS are for 2015.
3. Projections are better informed when multiple inputs are considered.

Figure 1. Study Area



Source: U.S. Census Municipal Boundaries and St. Cloud APO.

Current Growth and Population Estimates

APO's Municipalities

Between 2009 and 2016, the municipalities within the APO experienced relatively minor fluctuations of population change as evident by the quantities outlined in Tables 1 and 2 (note that the Demographic Center has provided 2016 estimates, whereas ACS has yet to provide that year). The ACS estimates that the APO's municipal population has grown to 115,387 in 2015, an increase around 9.2 percent since 2009. The average annual growth rate, based on the ACS data, is around 1.5 percent. Alternatively, the Demographic Center estimates that the APO's municipal population has grown to approximately 116,422 in 2016, or an increase of around 5.7 percent since 2009. The average annual growth rate, based on the Demographic Center, data is around 0.8 percent.

Table 1. ACS Observed Population of APO Municipalities

Year	St. Cloud	Sartell	Waite Park	Sauk Rapids	St. Joseph	St. Augusta	Total
2009	64,126	13,657	6,853	11,787	5,951	3,245	105,619
2010	65,885	14,756	6,720	12,482	6,246	3,222	109,311
2011	68,066	15,175	6,729	12,635	6,383	3,265	112,253
2012	64,949	15,545	6,702	12,784	6,503	3,321	109,804
2013	67,754	15,851	6,678	12,943	6,583	3,381	113,190
2014	64,221	16,123	7,391	13,079	6,694	3,434	110,942
2015	68,253	16,274	7,429	13,196	6,749	3,486	115,387

Sources: U.S. Census, American Community Survey, 2009-2015.

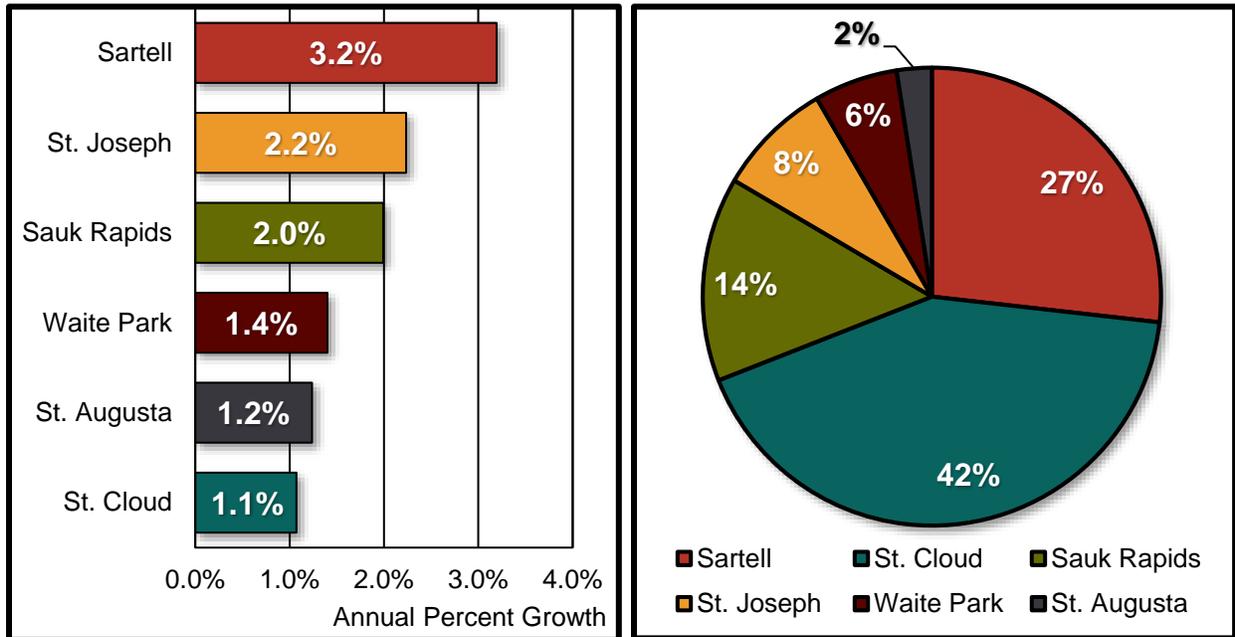
Table 2. MN Demographic Center Observed Population of APO Municipalities

Year	St. Cloud	Sartell	Waite Park	Sauk Rapids	St. Joseph	St. Augusta	Total
2009	65,741	15,062	6,747	13,133	6,174	3,289	110,146
2010	65,842	15,876	6,715	12,773	6,534	3,317	111,057
2011	65,633	15,963	6,714	12,796	6,579	3,358	111,043
2012	65,801	16,100	7,372	12,890	6,629	3,388	112,180
2013	66,219	16,217	7,372	13,210	6,787	3,381	113,186
2014	66,462	16,949	7,473	13,307	6,805	3,404	114,400
2015	67,010	17,203	7,514	13,406	6,772	3,432	115,337
2016	67,344	17,582	7,639	13,631	6,739	3,487	116,422

Source: MN Demographic Center Annual Estimates, 2009-2016.

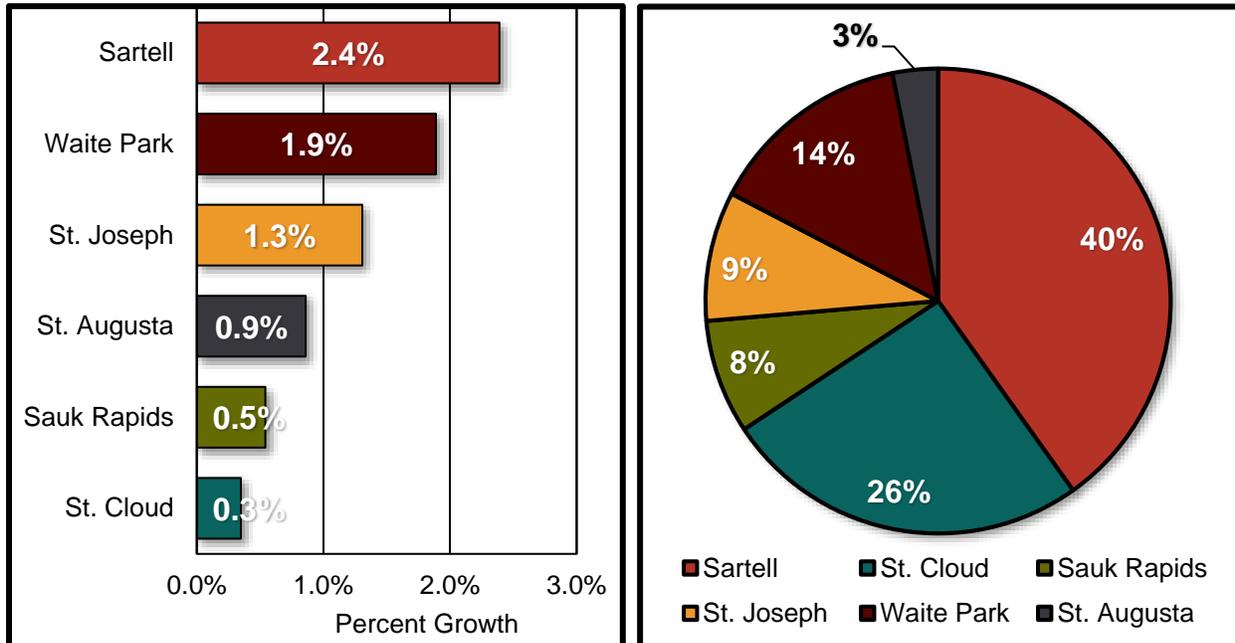
Figures 2 and 3 display each city's percent growth during the base period (2009-2015 ACS and 2009-2016 Demographic Center) and their share of the overall municipal growth in the APO. This comparison can help depict how each municipality is experiencing growth from the regional perspective. Both ACS and Demographic Center sources show that Sartell experienced the fastest growth rate within the APO region since 2009 (~2-3% annually). Additional coordination with the municipalities will help determine what the driving forces for growth are in each community, and how each municipality envisions growth and development in the future.

Figure 2. 2009-2015 City Annual Percent Growth and City Share of Municipal APO Growth, ACS



Source: U.S. Census, American Community Survey One-year Estimates, 2009-2015.

Figure 3. 2009-2016 City Annual Percent Growth and City Share of Municipal APO Growth, MNDC



Source: Minnesota Demographic Center One-year Estimates, 2009-2016.

APO's Unincorporated Areas

While the six municipalities continue to be the major population centers of the APO, roughly 72% of the APO has remained as unincorporated land. In addition, the unincorporated land and population is separated into three different counties (i.e. Stearns, Benton, and Sherburne). To ensure the population within the APO's unincorporated areas are accounted for to the best extent, a simple methodology using census block groups was pursued. While some census block groups fell entirely within the APO and did not conflict with the census municipal boundaries, there were several instances where this was not the case.

To address this, as evident by Figure 4, the acreage within the APO (and not conflicting with a municipality) was divided by the total block group acreage resulting in a ratio. This ratio was then multiplied by the total block group population to determine an estimated population. In cases where there was a clear presence of a residential subdivision, adjustments were made to the ratio. Since the Minnesota Demographic Center's annual estimates do not break down to block groups, 2015 ACS data was utilized. The method determined that the APO's 2015 unincorporated population was approximately 21,189 (Stearns 11,079, Benton 6,206, and Sherburne 3,904). While this method cannot provide the exact population for this unincorporated area, it does provide a reasonably acceptable estimate.

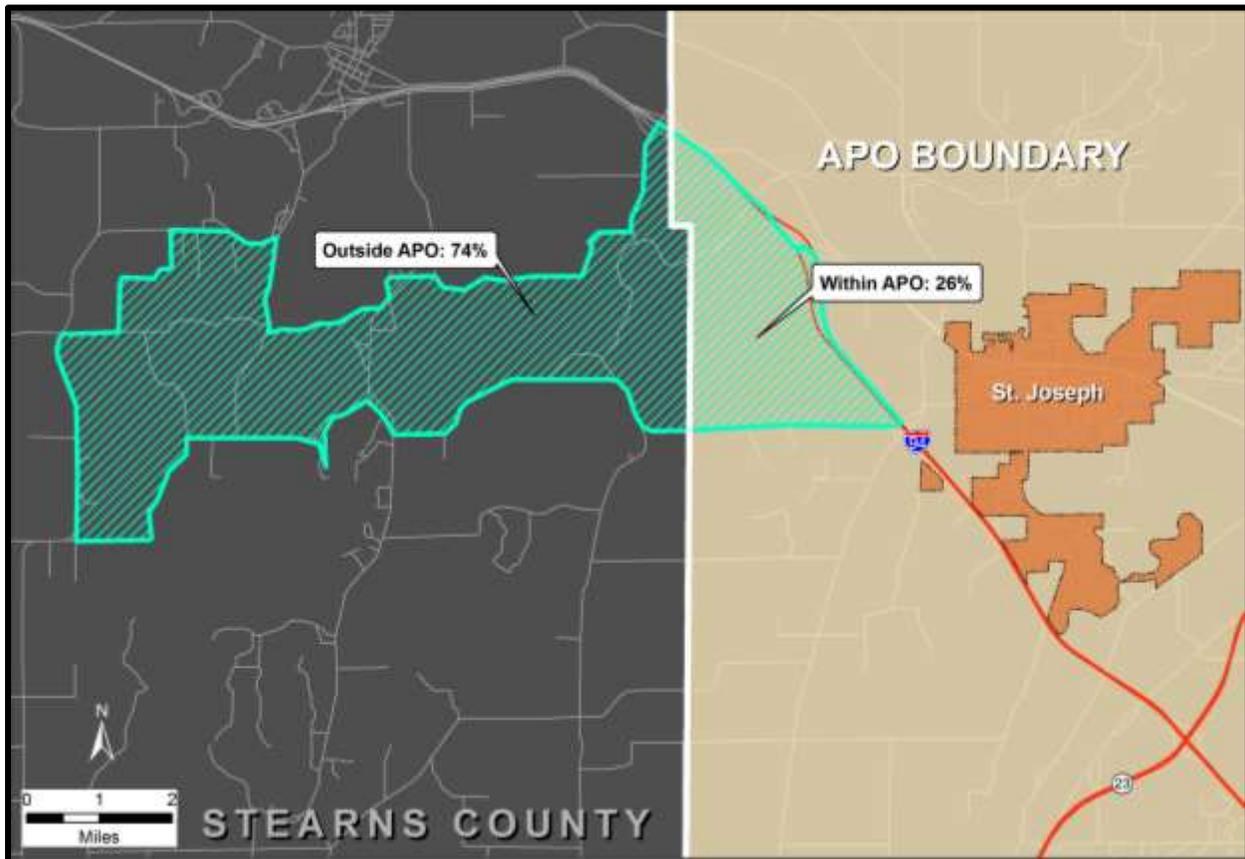
Entire Study Area

Using the sources and applying the methodologies mentioned in the section, the following is estimated for the 2015 observed population for the APO's jurisdiction:

- Approximately 136,526, using the Demographic Center estimate for the municipal population and the ACS source estimate for the unincorporated population.
- Approximately 136,576 using the ACS estimate for the municipal population and the ACS source estimate for the unincorporated population.

It is important to remember that residents of recently completed residential construction (i.e. units under construction in 2016 or since that time) and dwelling units currently under construction will not be accounted for in the 2015 and 2016 population estimates. Collection of all this data and refining the population estimates for the unincorporated areas is significant since this historical data provides the starting point for performing population forecasts for the study area.

Figure 4. Example of Census Block Group with Acreage Percent within APO



Source: U.S. Census, Topologically Integrated Geographic Encoding and Referencing (TIGER) Products, 2015.

Population Forecast Methodology

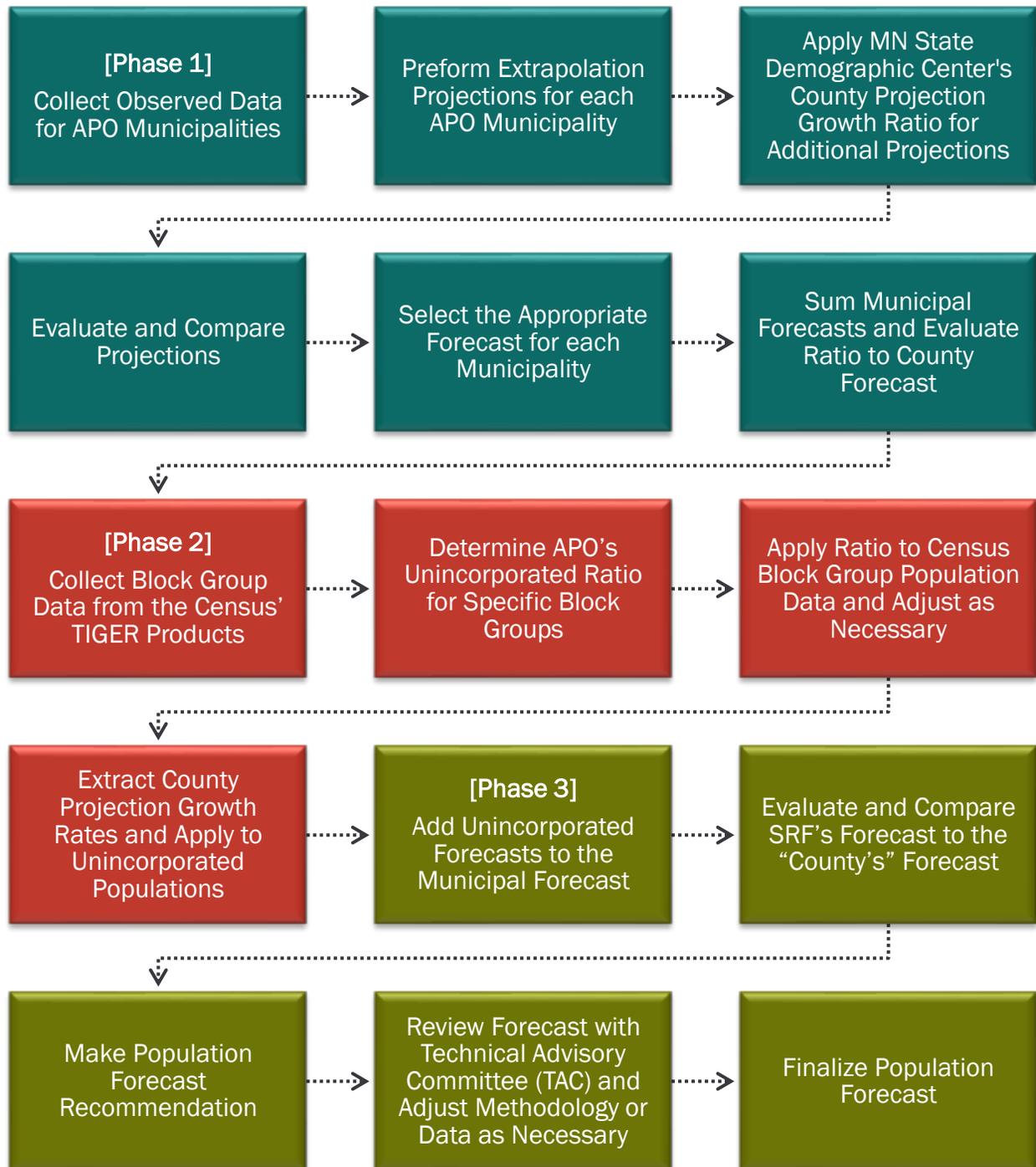
In order to provide a reasonable population forecast for a study area that does not follow conventional statistical boundaries (i.e. is not part of an easily defined census area), a mixed-method approach using various sources was developed. The primary sources for data and quality control included the following:

- Minnesota State Demographic Center County Projections
- Minnesota State Demographic Center Annual Estimates
- U.S. Census Bureau's American Community Surveys
- U.S. Census Bureau's Topologically Integrated Geographic Encoding and Referencing (TIGER) Products

Figure 5 outlines the general methodology applied to develop the population projections and final forecast for the study area. The methodology consisted of three phases including: 1) Forecast the APO Municipal Population Growth, 2) Determine the Unincorporated Population and Forecast Population Growth, and 3) Combine Previous Forecasts, then Evaluate, Adjust, and Finalize. Note that phase 1 of the methodology detailed in Figure 5 was utilized for projections based upon ACS observed

estimates for the municipal population **and separately** for the Demographic Center observed estimates for the municipal population.

Figure 5. Population Forecast Methodology



2045 Population Forecasts

APO's Municipalities

By 2045, forecasted population for the municipalities within the study area is expected to reach about 142,572 based on the application of trends identified by the ACS estimates, and 147,281 based on the application of trends identified by the Demographic Center estimates. Based on ACS data, this suggests that the municipalities of the study area will increase in population by around 24 percent with an average annual growth rate of 0.8 percent. Based on Demographics Center data, this suggests that the municipalities of the study area will increase in population by around 25 percent with an average annual growth rate of 0.9 percent. Table 2 outlines the forecasts for each municipality within the APO, in addition to the 2045 forecast based solely on the MN Demographic Center's county growth rate projections. **SRF's 2045 population forecast for the APO is approximately 21,000 – 23,000 higher than the population forecast derived by simply using the MN Demographic Center's county growth rates..**

The Demographic Center's projections consist of county growth rates. Those rates treat rural and urban areas the same in their assumptions, quantities and calculations. Unlike urban areas such as the APO, rural unincorporated areas typically have a low or nonexistent growth rate. Therefore, it is anticipated that any forecast using the county's growth projection rate will be less than what will actually occur within the APO. While the county growth rates do provide a means for quality control, they do not necessarily provide the most accurate means to forecast growth within an urbanized and urbanizing area such as the APO. As a result, SRF's forecasts for the APO's municipalities are believed to be a more accurate representation of future growth.

Figure 6. Population Forecasts for APO Municipalities (based on ACS Observations)

Year	St. Cloud	Sartell	Waite Park	Sauk Rapids	St. Joseph	St. Augusta	Total
2015	68,253	16,274	7,429	13,196	6,749	3,486	115,387
2020	68,667	18,558	7,909	13,756	7,036	3,669	119,595
2025	70,237	20,568	8,389	14,180	7,185	3,862	124,421
2030	71,798	22,579	8,869	14,504	7,265	4,064	129,079
2035	73,359	24,590	9,349	14,752	7,308	4,278	133,636
2040	74,920	26,601	9,829	14,942	7,331	4,502	138,125
2045	76,481	28,612	10,309	15,087	7,344	4,739	142,572
2045*	71,707*	17,098*	7,805*	13,864*	7,091*	3,662*	121,227*

Sources: U.S. Census, American Community Survey, 2009-2015. MN Demographic Center Projections, 2017. Note*: Applies Minnesota County Projection Growth Rate for specific county.

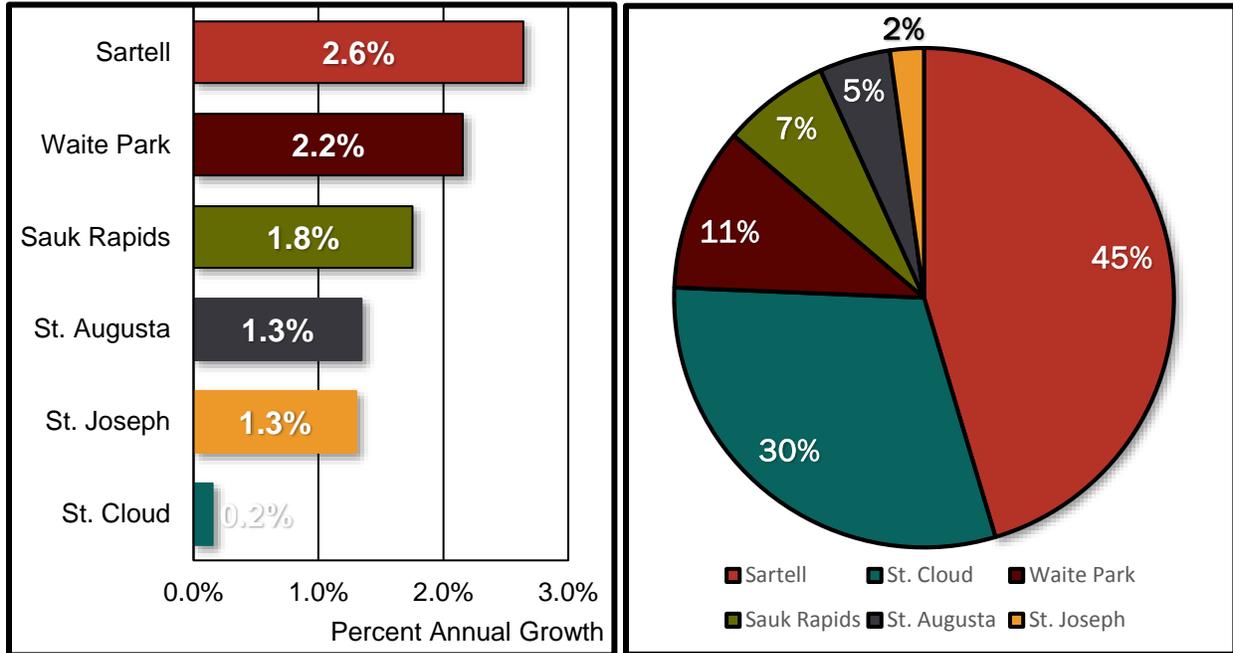
Table 3. Population Forecasts for APO Municipalities (based on MN Demographic Center Observations)

Year	St. Cloud	Sartell	Waite Park	Sauk Rapids	St. Joseph	St. Augusta	Total
2016	67,344	17,582	7,639	13,631	6,739	3,487	116,422
2020	68,593	18,969	8,176	14,399	7,028	3,614	120,779
2025	70,008	20,478	8,837	15,246	7,239	3,745	125,553
2030	71,422	21,986	9,499	16,143	7,449	3,881	130,380
2035	72,837	23,494	10,161	17,092	7,659	4,022	135,265
2040	74,251	25,003	10,822	18,097	7,869	4,168	140,210
2045	75,666	26,511	11,484	19,162	8,079	4,320	145,222
2045*	71,707*	17,098*	7,805*	13,864*	7,091*	3,662*	122,314*

Sources: MN Demographic Center Annual Estimates, 2009-2016. MN Demographic Center Projections, 2017. Note*: Applies Minnesota County Projection Growth Rate for specific county.

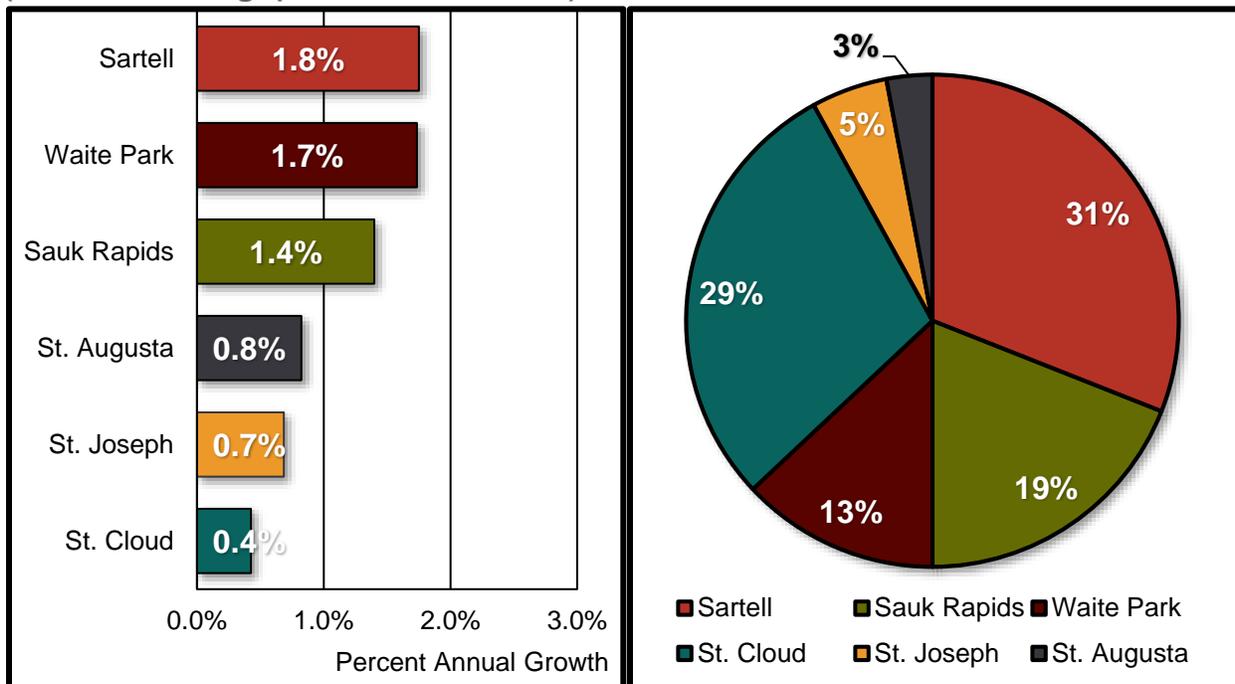
Comparable to Figures 2 and 3, Figures 4 and 5 display each city’s forecasted percent growth and their share of the forecasted municipal growth in the APO. This comparison helps depict how each municipality may experience future growth from the regional perspective.

Figure 7. 2015-2045 City Forecasted Percent Growth and City Forecasted Share of Municipal APO Growth (based on ACS Observations)



Sources: U.S. Census, American Community Survey, 2009-2015. MN Demographic Center Projections, 2017.

Figure 8. 2016-2045 City Forecasted Percent Growth and City Forecasted Share of Municipal APO Growth (based on MN Demographic Center Observations)



Sources: MN Demographic Center Annual Estimates, 2009-2016. MN Demographic Center Projections, 2017.

APO’s Unincorporated Areas

The forecasted population for the unincorporated areas of the APO (as determined by the Census) is expected to reach to about 22,261 by 2045. This suggests that between 2015 and the target year (2045), the unincorporated areas will increase in population by around five (5) percent. Table 3 outlines the forecasts for each unincorporated area by county within the APO. Compared to the municipal forecasts, the unincorporated forecasts were based solely on the MN Demographic Center’s county growth rate projections.

Table 4. Population Forecasts for APO Unincorporated Areas

Year	Stearns County	Benton County	Sherburne	Total
2015	11,079	6,206	3,904	21,189
2020	11,244	6,299	3,962	21,506
2025	11,377	6,373	4,009	21,760
2030	11,472	6,427	4,043	21,942
2035	11,545	6,467	4,068	22,080
2040	11,598	6,497	4,087	22,182
2045	11,639	6,520	4,102	22,261

Source: U.S. Census, American Community Survey, 2015. MN Demographic Center Projections, 2017.

Entire Study Area

Using the Demographic Center source for the APO municipal population and adding the ACS source for unincorporated population, as well as applying the methodologies mentioned in the previous sections, it is forecasted that by 2045 the total population of the APO’s jurisdiction will be approximately 164,833 or an increase of about 21% (ACS-based) and approximately 167,483 or an increase of about 22% (Demographic Center-based).

Important Considerations & Next Steps

The growing population suggests that all municipalities within the APO should continue to be proactive and communicative in the anticipation of future development. As more observed data is subsequently released, the cities and APO can compare the data to the forecasts and therefore plan, fund, and prepare accordingly. While the population forecast assumes that the study area boundary will remain static throughout the plan horizon, it is recognized that growth within and around the cities in the APO will likely change.

Nevertheless, the information provided in this memorandum provides a reasonable perspective of how population will change within the APO by 2045 with the information available today. With the preliminary population forecast now completed, the next step is to disseminate the forecast to the Technical Advisory Committee (TAC) to ensure both the data, methodologies, and results appear accurate and provide a reliable, documented basis for projecting future travel demand and transportation needs. Once any adjustments are made, the next priority is projecting housing and employment in traffic analysis zones (TAZs) throughout the study area. This will be based upon conversations and information provided by several local stakeholder groups and institutions and upon plans provided by each jurisdiction in the MPO. The following information will be needed to perform the next steps:

- Future Land Use Plans for all Municipalities (i.e. St. Cloud, Sartell, Waite Park etc.)
- Future Land Use Plans for all Counties (Stearns, Benton, and Sherburne)
- Updated Parcel Layers for all Counties (Stearns, Benton, and Sherburne)

If this information is available in GIS format, it will ensure more accurate allocation of future households and jobs. If GIS data is not available for future land use plans, a pdf of the future land use plans will be needed. If full comprehensive plans are available, these will be needed as well, since they may provide maps and other information about development constraints and priority growth areas. Utility master plans may also be useful, as they typically identify priority areas for future utility extensions which will serve new growth areas. SRF will work with each jurisdiction to verify priority growth areas and constraints.