Appendix D

Introduction

SRF Consulting Group, Inc., updated the socio-economic data for the St. Cloud APO (Area Planning Organization) region to reflect the year of 2045. To understand local adjustments that would result from adopted comprehensive plans, SRF engaged all participating APO cities, including: St. Cloud, Sartell, Waite Park, Sauk Rapids, and St. Joseph.

Unincorporated areas within Stearns, Benton, and Sherburne counties which are not included in a municipal land use plan were assumed to be unchanged from 2040 to 2045. The majority of these areas are anticipated to remain consistent with the pervious update or are already represented within a plan of the aforementioned cities.

Methodology Adjustments – 2015 Observed Data

Application and Initial Considerations

This section addresses how the observed data from 2015 was merged into the overall methodology and how it influenced the results. In the absence of an extensive parcel-by-parcel data collection effort for housing units and building footprints for all parcels within the APO, and using that as a starting base, the alternative approach engaged for this study was to apply the APO's 2015 observed data for the TAZs via a quality control approach. Since the APO's existing data is at the TAZ level rather than at the parcel level, use of, and any corresponding changes resulting from, the data occurred following preliminary calculations. Projections for 2045, including population, housing units, and employment were used throughout the process as controls to ensure the total quantities remained reasonable. TAZs were primarily controlled by the 2015 observed data, acreage within the TAZ, future land use designations, approved assumptions, and the overall projections.

The quality control for specific TAZs was enhanced by the 2015 data through careful comparisons and identification of necessary adjustments that needed to be made to assumptions previously applied. For example, the 2015 data provided valuable guidance about the floor area ratio (FAR) assumptions for areas within the study area. Based on the 2015 data, St. Cloud has experienced higher FARs than previously assumed, allowing us to adjust our assumptions and contain future non-residential growth within a smaller footprint than previously assumed. The 2015 data also helped verify which TAZs were likely near or far from their buildout capacity.

Prior to comparing 2045 data to the 2015 observed data and the 2040 study, recognition of the following considerations is critical:

- The base assumptions (such as FAR, PPH, Units per Acre, etc.) applied for the 2045 data may differ from those used to estimate the 2040 projections. Also, differences between such assumptions is expected, to some extent, to account for anticipated shifts in demographic trends over the next 30 years.

- This study focuses on the five participating municipalities of the APO. Any TAZs which did not include future land use designations from one of these municipalities was anticipated to remain the same for both future land use and the final quantities.

- Since the five participating cities collectively are comprised of 62 future land use designations, the classification of all these designations into the nine (9) established designations by the APO

makes any direct comparison rather challenging. For example, there is the strong possibility that a use originally designated in 2015 or 2040 as "low retail" may have been considered here as "medium retail", based on the interpretations of the future land use plans, thus shifting the totals from one retail classification to the other.

- In a few cases, reductions in existing households or commercial/industrial square footage results, due to application of each jurisdiction's future land use plan. In cases where the future land use plan showed changes to areas that area already developed, we assumed redevelopment would need to occur to carry out the future land use plan.

Abridged Comparisons

The following section is both an abbreviated and limited comparison of the 2015, 2040, and 2045 data. Please be cognizant of the considerations presented in the previous section as many of the visible differences may be attributable to those factors. Table 1 provides a breakdown of employment generating land uses by 1,000 square feet. For the target year of 2045, it is anticipated that an approximate total of 58,283,000 square feet will be required to meet the commercial/industrial employment demand of the APO. In addition to the critical factors previously presented, an additional consideration for the roughly 10,000,000 square feet difference between the 2040 and 2045 studies is the introduction of the future land use plans. Collectively, the participating municipalities are planning for a surplus of employment-generating land uses of about 80 percent (approximately 40 percent is optimal for a projection horizon of 30 years). Without significant development directing controls, application of future land use plans assumes that any land designated for a specific use has fair opportunity for development during the projection horizon. Consequently, this may lead to a more spread out distribution of employment throughout the region's TAZs than was expected during the 2040 study. With that said, some controls are applied in the 2045 study such as gross area reductions (for right-of-way, open space, etc.) on undeveloped parcels and the manual adjustments which derived from 2015's TAZ data.

Table 1. Employment Generating Land Uses (1,000 Sq. Ft.)

	2015	2040 Study	2045 Study
Industry	10,753	14,474	8,911
Low Industrial	6,179	8,983	15,873
Low Retail	8,621	11,853	1,970
Medium Retail	1,791	2,495	11,419
High Retail	925	1,354	10,352
Office	6,418	8,894	9,758
TOTAL	34,687	48,053	58,283

The considerations presented in the previous section may also be attributable to the quantitative differences found in housing units. Table 2 provides a breakdown of residential land uses by total dwelling units. For the target year of 2045, it is anticipated that an approximate total of 67,386 housing units will be required to meet the housing demand of the APO. In addition to the critical factors previously presented, there are additional considerations for the roughly 9,000-unit difference between the 2040 and 2045 studies. First, the 2040 study anticipated a

much faster growth rate resulting in population approximately 14,000 greater than the 2045's projection. Consequently, the projected number of housing units from the 2040 study is greater than the total offered in this study. The 2040 study anticipated an overall decline in persons per household over the projection horizon. However, assessments of current trends and discussions with each city's staff revealed that persons per household will likely be static, if not increase, during the projection horizon due to demographic shifts.

Finally, the introduction of each participating city's most updated future land use plan is likely a significant attributable factor for some of the change. Collectively, the participating municipalities are planning for a surplus of residential land uses of about 67 percent (approximately 40 percent is optimal for a projection horizon of 30 years). As mentioned earlier, application of future land use plans assumes that any land designated for a specific use has fair opportunity for development during the projection horizon. Consequently, this may lead to a more spread out distribution of units throughout the region's TAZs than was expected during the 2040 study. As before however, some controls are present in the 2045 study such as gross area reductions (for right-of-way, open space, etc.) on undeveloped parcels and the manual adjustments which derived from 2015's TAZ data. These controls may help alleviate some potential concerns of the data being too widespread.

Table 2. Residential Land Uses (Dwelling Units)

	2015	2040 Study	2045 Study
Single Family	34,357	47,322	40,528
Multiple Family	21,107	29,101	26,857
TOTAL	55,464	76,423	67,386
PERSONS PER HOUSEHOLD	~2.46	~2.37	~2.49

Record of Contact and Use of Educational Institution and Hospital Data

Note regarding 2045 school and college/university data: Several attempts have been made to contact the appropriate staff from all local school districts and institutions of higher education.

With the exception of ISD 748 (Sartell-Saint Stephens), all other districts and institutions have been unable to provide information on student projections by the year 2045. Further explanation of SRF's efforts to contacts these institutions is provided in a subsequent section.

Schools

ISD 748 (Sartell St Stephens)

Independent School District 748 provided projections for 2025. The projections were completed in 2015. Table 3 shows the projections for ISD 748.

Table 3. ISD 748 projections through 2025

Cohort	2015	2025	Percent Change
K-4	1,446	1,491	3.1%

5-8	1,200	1,284	7.0%
9-12	1,113	1,285	15.4%
Total	3,759	4,060	8.0%

From 2015 to 2025, the forecasted change for all grades is 8 percent. 2045 forecasts could be derived by extrapolating from these projections, or by applying the methodology provided by the District to SRF's own cohort projection model.

Planned facilities

A new high school will be constructed on Pinecone Road between 27th Street and 25th Street, in TAZ 1. This school will be completed in Fall 2019. The City has planned substantial remodeling to existing buildings as well. The planned capacity for the new high school is 1,500 students.

ISD 742 (St Cloud)

Planned facilities

In 2019, a new technical high school will be built at 3500 County Road 74 in St. Cloud (TAZ 114). This facility will accommodate 1,600 students.

A new 70,000 square foot center for community education/early childhood education will be built in Waite Park, adjacent to the Discovery Community School (TAZ 103).

Hospitals

St Cloud VA Hospital System (Veterans)

County-by-county projections of the Veterans population were obtained from the US Department of Veterans Affairs, www.va.gov/vetdata/veteran_population.asp. This dataset contains projections out to 2045. Table 4 summarizes statistics for Benton, Stearns, and Sherburne Counties.

Table 4. Projections for Veteran Population

County Name	Veteran Population/Projection			Percent Change	
	2017	2040	2045	2017-2045	2040-2045
Benton	2,968	2,079	1,912	-35.6%	-8.8%
Sherburne	5,854	4,649	4,420	-24.5%	-5.2%
Stearns	10,021	5,776	5,240	-47.7%	-10.2%

Source: US Department of Veterans Affairs

The table indicates percent change from the existing veteran population (2017) to the forecasted veteran population for 2045, and the percent change from the base year (2040) of the previous travel demand model to 2045. It is expected that VA hospital staffing needs would decrease similarly. The number of VA hospital beds for 2045 was decreased by 10% for 2045 to correspond with the 2040- 2045 veteran population change in that time period.

St Cloud Hospital – CentraCare

CentraCare provided demographic forecasts out to 2022. They provided data for the current number of staff, and inpatient and outpatient visits. The number of inpatient and outpatient visits has been estimated for 2026; corresponding staffing needs could be estimated for these figures. CentraCare recommended applying their growth factors to our own demographic forecasts for 2045. The hospital noted that the current facility is landlocked and there is no land to expand on site. They have acquired St. Cloud Medical Group, Midsota the Sauk Crossing Building. Expansion would likely occur at one of these sites. The most extensive of these facilities, the St. Cloud Medical Group facilities located north of the existing hospital at Connecticut Ave S (TAZ 14), is mostly likely to bear the greatest extent of expansion given the size of the facilities and adjacent land area available for expansion compared to the other facilities.

In 2016, there were approximately 25,300 inpatient discharges. The forecasted change for 2026 ranges from -1% to 11%. The overall outpatient volume was approximately 7,080 in 2016. That number is forecasted to increase by 8-11% for 2026. The 11% increase through 2026 was extrapolated out to 2045 for purposes of the travel demand model. Then the number of beds to inpatient visits in 2016 was increased to be proportional to the projected inpatient visits for 2045. The additional/new beds (78) were applied to the current St. Cloud Medical Group campus immediately north of the hospital in TAZ 14, given available capacity there for future growth.