



2023 BIG STONE COUNTY

Solid Waste Management Plan

Big Stone County Environmental Department

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Ortonville, MN 56278

Prepared by:

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Appendix I – Minnesota DEED Big Stone County Profile (*August 1, 2022*)

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1. Executive Summary

Background

Big Stone County (BSC) has developed this County Solid Waste Management Plan, which contains the solid waste data analysis, solid waste policies and the solid waste budget, which guide the development of solid waste programs within the County. It also includes the County's description of the solid waste abatement programs commonly referred to as SCORE programs.



The programs already implemented and those planned for the future must be economically viable and effective for our sparsely populated, rural county. The very favorable results of the solid waste programs currently in place are attributable to the excellent cooperation of the citizens who are committed to these efforts. Available resources are being channeled to those activities, which bring the greatest return via special collections and strong educational campaigns. This solid waste plan has been prepared to comply with statutory requirements. The more important use is to provide policy makers, staff and citizens with a guidance document for future planning and implementation of programs that protect and enhance our environment. This plan was developed and completed by: Darren Wilke, BSC Environmental Officer; Ronda Maas, BSC Deputy Environmental Officer; the BSC County Commissioners; the BSC Planning Commission; citizen advisors; private waste haulers; with assistance from the Upper Minnesota Valley Regional Development Commission and David Crowell of the Minnesota Pollution Control Agency (MPCA).

Big Stone County Commissioners

Chad Zimmer
Wade Athey
Olson
Sandberg

1st District
2nd District Brent
3rd District Roger
4th District Jeff Klages
5th District

2. Background Information

2.1 Population Trends

BSC's 2020 population of 5,166 currently ranks 83rd out of Minnesota's 87 counties. The population has experienced a continual decline over the past 70 years while the state of Minnesota has experienced growth. The most recent decline of 103, or 2.0%, was the smallest decrease in recent history, perhaps signaling a stabilizing population. However, according to the Minnesota State Demographic Center, the

county’s projected population continues to trend downward with 2023 and 2033 projected populations of 4,765 and 4,317 respectively.

Figure 1: Big Stone County Population Change, 1950-2020



There is a total of eight communities within the county, with the largest being Ortonville, which also serves as the county seat. The smallest community is Barry with only 16 residents and is one of four communities with populations near or under 100 residents. The following table shows the 2020 populations for cities in BSC.

Table 1: 2020 City Populations in Big Stone County

| City | 2020 Population |
|-------------------------|-----------------|
| Barry | 16 |
| Beardsley | 216 |
| Correll | 26 |
| Clinton | 386 |
| Graceville | 529 |
| Johnson | 24 |
| Odessa | 103 |
| Ortonville | 2,021 |
| Rural residents | 1,845 |
| Total population | 5,166 |

Source: U.S. Census, 2020



According to the 2020 Census, there are 2,294 households making the average household size, 2.25. This is a slight decrease in the number of households from 2,366 in 2010. However, the average household size remained similar due to the slight decrease in overall population.

The county’s median age is over 10 years older than the statewide median at 48.3 years compared to 38.3 according to the 2020 American Community Survey.

2.2 Land Use Patterns

BSC is located in a predominantly rural part of western Minnesota. The total land area of the county is approximately 528 square miles, which includes about 28 square miles of water, primarily from Big Stone Lake, Artichoke Lake, Marsh Lake and many other smaller bodies of water sprinkled primarily throughout the central and northern parts of the county. Much of the land is used for agricultural purposes (almost 75%) while the remaining acres are grassland, forest, or water. Just over 1% of the County is considered developed and residential, industrial, or urban in nature. Taking this into consideration, the areas outside of the eight communities are quite sparsely populated. Please note that while this data is from 1990, County officials believe it can still be considered fairly accurate as there have not been any new developments that would have significantly changed any of the land use percentages.

Table 2: Big Stone County Land Use and Cover Statistics, 1988-1990

| Land Use | Acres | % of total |
|--|----------------|-------------|
| Urban and Industrial | 1,611 | 0.5% |
| Farmsteads and Rural Residences | 2,468 | 0.7% |
| Rural Residential Development Complexes | 206 | <0.1% |
| Other Rural Developments | 383 | 0.1% |
| Cultivated Land | 251,987 | 74.5% |
| Transitional Agricultural Land | 11,695 | 3.5% |
| Grassland | 27,689 | 8.2% |
| Grassland – Shrub, Tree Complex (Deciduous) | 790 | 0.2% |
| Grassland – Shrub, Tree Complex (Coniferous) | 0 | 0% |
| Deciduous Forest | 9,430 | 2.8% |
| Coniferous Forest | 1 | <0.1% |
| Water | 19,095 | 5.6% |
| Gravel Pits and Open Mines | 270 | <0.1% |
| Bare Rock | 0 | 0% |
| Exposed Soil | 40 | <0.1% |
| Unlabeled/unclassified/outside state or outside county | 68 | <0.1% |
| TOTAL | 325,733 | 100% |

Source: The Land Management Information Center (LMIC), 1990

2.3 Economic Factors (Employment, Income, and Wages)

The most recent unemployment rates in the county have varied from 1.6% to 4.7% from June 2021 to June 2022 according to recent data from the Minnesota Department of Employment and Economic Development (DEED). Currently, the unemployment rates in the entire region are extremely low and many employers are having trouble finding workers to fill vacancies. Looking at Economic Development Region 6W (Big Stone, Chippewa, Lac qui Parle, Swift and Yellow Medicine Counties) data released by DEED in June 2022, the number of job seekers per job vacancy is at ten-year low at just 0.3 seekers per opening in the fourth quarter of 2021, while the number of vacancies is at a ten-year high of 16,313.

This is likely a result of a substantial number of workers taking early retirement at the onset of the pandemic as well as millennial parents who decided to leave the workforce to care for their families and have not returned.

The employment rate of BSC was 56.5% according to the 2020 American Community Survey, which was a slight decrease from the previous year (58.0%). This declining trend has been common across the state and much of the country following the global pandemic. The industry with the largest number of employees is the “Educational services, and health care and social assistance” sector employing over 32% of the workforce. The next largest sector is the “Agriculture, Forestry, Fishing, and Hunting, and Mining” which employs 13.6% of the workforce.

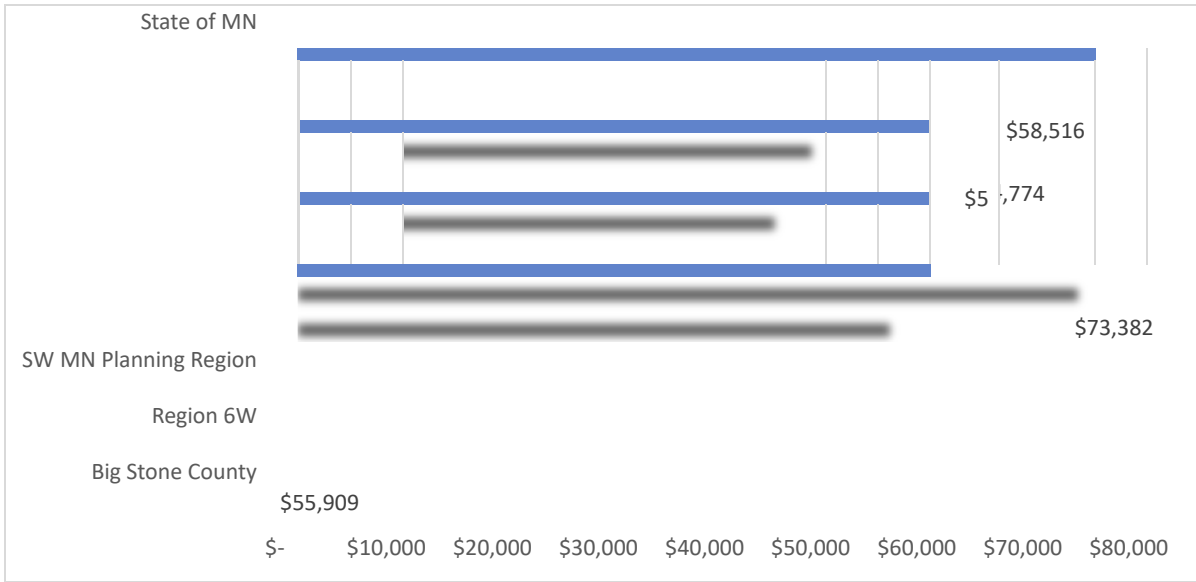
Table 3: Industry for the Civilian Employed Population 16 Years and Over, Big Stone County

| Industry | % |
|--|----------|
| Agriculture, Forestry, Fishing and Hunting, and Mining | 13.6% |
| Construction | 5.8% |
| Manufacturing | 9.6% |
| Wholesale Trade | 3.9% |
| Retail Trade | 10.4% |
| Transportation warehousing, and utilities | 6.2% |
| Information | 0.5% |
| Finance, and Insurance, and real estate and rental and leasing | 5.0% |
| Professional, scientific, and management, and administrative and waste management services | 3.5% |
| Educational services, and health care and social services | 32.2% |
| Arts, entertainment, and recreation, and accommodation and food services | 3.4% |
| Other services, except public administration | 3.4% |
| Public administration | 2.4% |

Source: 2020 American Community Survey 5-year Estimates

Income levels in BSC are significantly lower than the state as a whole, with the median household income in 2020 being \$55,909 compared to the statewide figure of \$73,382. It should also be noted that due to the rural nature of the county, the cost of living is also significantly less than a lot of other areas of the state.

Figure 2: Median Household Income, 2020



Source: American Community Survey, 2015-2019

As previously mentioned, BSC is located in Economic Development Region 6W, along with Chippewa, Lac Qui Parle, Swift and Yellow Medicine counties. When comparing BSC’s region with others in the state, the median hourly wage rates Region 6W were second lowest of the 13 economic development regions in Minnesota as shown in the following table. The occupational group with the highest hourly median wage is the Management sector at \$38.43 while making up 5.5% of the total jobs. The lowest median hourly wage rates were in the Food Preparation and Serving Related group at \$12.28, which also happens to be one of the larger occupational groups, making up a little over 8% of the workforce. The largest occupational group is the Office & Administrative Support group which makes up 11.8% of the total number of jobs and has a median hourly wage of \$18.89. It should also be noted that all of the median hourly wage rates in the region failed to surpass any of the statewide figures in their respective occupational group.

Table 4: Regional Wage Levels, Region 6W, 2021

| Occupational Group | Region 6W | | | | State of Minnesota | | |
|--------------------------------------|--------------------|-------------------------|---------------------|----------------------------|--------------------|------------------|---------------------|
| | Median Hourly Wage | Estimated Regional Jobs | Share of Total Jobs | Regional Location Quotient | Median Hourly Wage | State-wide Jobs | Share of Total Jobs |
| Total, All Occupations | \$18.94 | 15,790 | 100.0% | 1.0 | \$23.81 | 2,695,450 | 100.0% |
| Management | \$38.43 | 870 | 5.5% | 0.8 | \$50.51 | 181,090 | 6.7% |
| Business & Financial Operations | \$29.90 | 500 | 3.2% | 0.4 | \$38.08 | 192,700 | 7.1% |
| Computer & Mathematical | \$30.56 | 70 | 0.4% | 0.1 | \$48.34 | 101,560 | 3.8% |
| Architecture & Engineering | \$38.19 | 140 | 0.9% | 0.5 | \$39.39 | 51,970 | 1.9% |
| Life, Physical & Social Science | \$27.03 | 130 | 0.8% | 0.8 | \$37.30 | 26,140 | 1.0% |
| Community & Social Service | \$22.76 | 300 | 1.9% | 1.0 | \$24.68 | 53,670 | 2.0% |
| Legal | \$29.94 | 30 | 0.2% | 0.3 | \$40.08 | 19,860 | 0.7% |
| Education, Training & Library | \$23.62 | 1,210 | 7.7% | 1.4 | \$24.48 | 149,990 | 5.6% |
| Arts, Design, Entertainment & Media | \$18.09 | 110 | 0.7% | 0.5 | \$26.08 | 36,710 | 1.4% |
| Healthcare Practitioners & Technical | \$30.27 | 1,110 | 7.0% | 1.0 | \$38.73 | 190,180 | 7.1% |
| Healthcare Support | \$15.23 | 1,150 | 7.3% | 1.2 | \$15.37 | 162,530 | 6.0% |
| Protective Service | \$23.55 | 290 | 1.8% | 1.2 | \$25.07 | 40,580 | 1.5% |
| Food Preparation & Serving Related | \$12.28 | 1,300 | 8.2% | 1.1 | \$14.65 | 198,800 | 7.4% |
| Building, Grounds Cleaning & Maint. | \$15.62 | 570 | 3.6% | 1.3 | \$17.98 | 75,850 | 2.8% |
| Personal Care & Service | \$14.60 | 370 | 2.3% | 1.1 | \$15.24 | 56,580 | 2.1% |
| Sales & Related | \$14.59 | 1,360 | 8.6% | 0.9 | \$17.25 | 245,390 | 9.1% |
| Office & Administrative Support | \$18.89 | 1,860 | 11.8% | 0.9 | \$23.12 | 334,550 | 12.4% |
| Farming, Fishing & Forestry | \$18.34 | 100 | 0.6% | 3.9 | \$18.55 | 4,350 | 0.2% |
| Construction & Extraction | \$23.72 | 740 | 4.7% | 1.2 | \$30.09 | 107,180 | 4.0% |
| Installation, Maintenance & Repair | \$23.42 | 880 | 5.6% | 1.6 | \$25.34 | 96,660 | 3.6% |
| Production | \$18.80 | 1,390 | 8.8% | 1.2 | \$19.59 | 198,940 | 7.4% |
| Transportation & Material Moving | \$19.12 | 1,300 | 8.2% | 1.1 | \$19.30 | 209,780 | 7.8% |

Source: DEED Occupational Employment & Wage Statistics, Qtr. 1 2021

In addition to Region 6W, BSC is also located in the larger MN DEED Southwest Planning Region, which projects future employment levels by industry type to the year 2028 in the 23 counties of southwestern Minnesota. Looking ahead, the region is projected to see the largest increases in the Administrative and Waste Services sector (19.6%) and Construction sector (10.5%). The sectors projected to have the biggest decline by 2028 are the Information (-7.3%), Utilities (-6.3%) and Wholesale Trade (-6.3%) sectors. The Southwest Region’s largest sectors are projected to continue to be Health Care and Social Assistance (32,081), Manufacturing (30,719), Retail Trade (17,653) and Educational Services (16,274). The biggest projected increase in jobs comes in the Leisure and Hospitality sector with a projected 22.5% increase to 14,382 jobs in 2030, making it the fifth largest sector in the 23-county region.

For the entire demographic/economic summary, please refer to the complete Minnesota DEED County Profile in Appendix I.

2.4 Environmental Justice

Census tracts 9502 and 9503, or approximately the western half of the county, are considered Environmental Justice areas of concern by the MPCA for the following reasons:

- At least 40% of people reported income less than 185% of the federal poverty level.

Source: <https://mpca.maps.arcgis.com/apps/MapSeries/index.html?appid=f5bf57c8dac24404b7f8ef1717f57d00>

BSC is sensitive to the needs of those located in these areas of concern and allows all of its residents, including those living in low-income households, the opportunity to comment and provide feedback during open meetings and public hearings.

3. Solid Waste Collection and Generation

According to the 2020 BSC SCORE Report, the amount of mixed solid waste annually generated in BSC in 2020 was reported to be 3,565 tons. This is a 19.2% decrease over the previous year. This total excludes industrial, construction and demolition wastes.



There are currently six solid waste haulers licensed in BSC consisting of both privately-owned and city-owned operations. It should be noted that the Cities of Beardsley and Clinton provide collection service to city residents only and are not for hire for customers outside of city limits. The list of licensed haulers in BSC is given in the table below.

Table 5: Licensed Solid Waste Haulers in Big Stone County (as of August 2022)

| | |
|---|--|
| Dakota Waste Solutions, LLC 5 7 th Avenue West Sisseton, SD 57262 https://dakotawastesolutions.com/ Phone: (605) 742-0981 | Engebretson Sanitary Disposal Service, Inc. 23780 470 th Avenue Morris, MN 56267 https://engebretsondisposal.com/ Phone: (320) 589-3804 |
| Mattheisen Disposal, Inc. 126 20 th Avenue NE PO Box 126 Benson, MN 56215 https://www.mattheisendisposal.com/ Phone: (320) 843-2120 | Waste Management of Central MN 420 Geneva Drive Alexandria, MN 56308 https://www.wm.com/us/en/location/mn |
| City of Beardsley P.O. Box 238 Beardsley, MN 56211 Phone: (320) 267-9868 | City of Clinton P.O. Box 6 Clinton, MN 56225 Phone: (320) 325-5580 |

All eight of BSC’s communities (100% of the city residents) are currently served with solid waste collection services. It is estimated that 445 rural residents or 24.1% of the rural population is served by solid waste collection service. It is estimated that approximately 1,400 rural residents are not served by solid waste collection services and do not self-haul to a disposal facility. (Note: There are 1,845 rural residents in county.)

According to the County’s 2020 SCORE Report data, an estimated 588 tons or 16.5% of solid waste is disposed of on-site by generators in 2020. Fortunately, the amount of waste disposed on-site has been on a steady decline since its high of 1,007 tons in 2003. The quantity of waste generated in the county that is not collected and disposed of in the formal waste management system is calculated by first

determining the population without MSW collection service that does not self-haul and then using the following formula:

$$(\# \text{ of persons} \times 2.3 \text{ lbs./person} \times 365 \text{ days}) / (2,000 \text{ lbs.})$$

All haulers throughout the county utilize volume-based pricing that encourages people to reduce their generation rates, as well as recycle and/or reuse more, which should prove to be a financial incentive. There are no other financial incentives for customers. The communities’ collection rates vary in service as haulers in two communities provide 32/64/96-gallon containers, one hauler collects by the bag, one community has a combination of 96-gallon containers and additional bags and one community has a flat monthly fee. The city of Clinton also offers various sized dumpsters, up to 3 CY, for larger waste generators, which can be assumed are primarily commercial/industrial customers. The following table provides the range of services provided and associated rates. Residents of the smallest communities of Correll, Johnson, and Barry are treated as “rural” customers and are billed accordingly by haulers.

Table 6: Current Range of Solid Waste Collection Rates, 2022

| Container Size | City | | | | |
|----------------|-------------|-------------|-----------------------------|-------------|------------|
| | Beardsley | Clinton | Graceville | Odessa | Ortonville |
| Flat fee | \$28.98/mo. | | | | |
| 2-30 gal. bags | | \$10/mo. | | | |
| Add'l bags | | \$2/bag | | \$2.50/ea. | |
| 32 gal. | | | \$14.05 Sr. \$16.57 Reg. | | \$11.83 |
| 64 gal. | | | \$21.61 | | \$15.40 |
| 96 gal. | | | \$24.72 | \$15.37/mo. | \$19.33 |
| 1 yd. Dump. | | \$55/mo. | | | |
| 1.25 yd. | | \$68/mo. | | | |
| 1.5 yd. | | \$82.50/mo. | | | |
| 1.75 yd. | | \$96.25/mo. | | | |
| 2 yd. Dump | | \$110/mo. | | | |
| 3 yd. Dump | | \$220/mo. | | | |

Source: Big Stone County Environmental Department survey, August 2022

Description of solid waste composition

Due to the lack of a county solid waste composition study in BSC, the county’s solid waste composition can be compared to Lyon County in southwest Minnesota. Lyon County was included in the Minnesota Pollution Control Agency’s (MPCA) 2013 Statewide Waste Characterization Final Report prepared by Burns and McDonnell. Due to the rural nature of Lyon County, its proximity to BSC, and the unavailability of other nearby waste composition studies, the Lyon County data from the 2013 Statewide Waste Characterization Final Report was used to describe the waste composition of BSC. In the 2013 report, solid waste composition broke down in the following way:

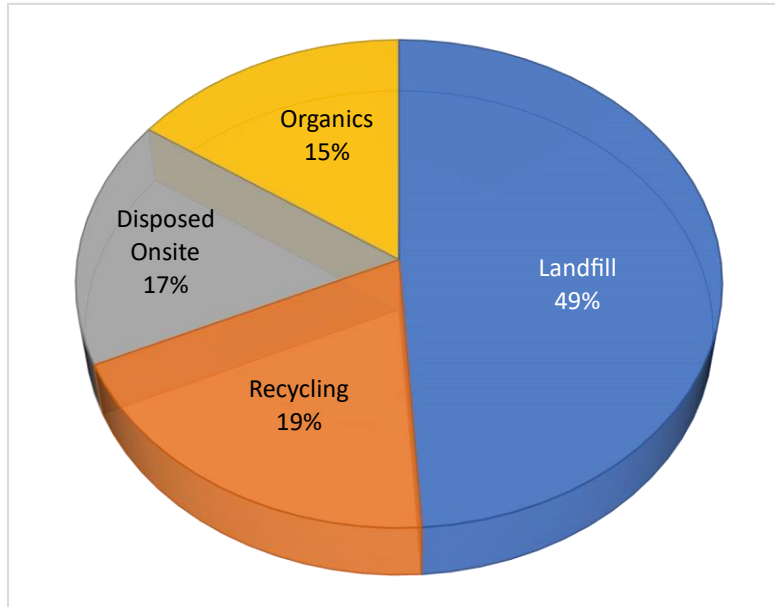
Table 7: 2013 Lyon County and Statewide Solid Waste Composition

| Material | % of Solid Waste | |
|---------------------------|------------------|-----------|
| | Lyon County | Statewide |
| Paper | 22.7% | 24.5% |
| Plastic | 17.7% | 17.9% |
| Household Hazardous Waste | 0.3% | 0.4% |
| Metal | 3.9% | 4.5% |
| Glass | 3.0% | 2.2% |
| Electronics | 1.3% | 1.2% |
| Organic | 30.9% | 31.0% |
| Other Wastes | 20.2% | 18.3% |

Source: 2013 Statewide Waste Characterization Final Report, MPCA, (Burns & McDowell)

As mentioned above, the county generated a total of 3,565 tons of mixed solid waste (MSW) in 2020, which was a 19.2% decrease from the prior year. Of the total tonnage generated, 1,746 tons were landfilled, 683 tons were recycled, 588 tons were disposed on-site, and 548 tons were organics. It is estimated that 54% of the county’s generated waste is residential and the remaining 46% of waste is commercial/industrial/institutional. The following figure shows the percentages of the various methods of waste management in the county.

Figure 3: Big Stone County Waste Management Methods, 2020



Source: 2020 Big Stone County SCORE Report, MPCA

Table 8: Big Stone County Mixed Municipal Solid Waste Composition

| Waste Material | Total Generation (tons) | Percent of Total |
|----------------|-------------------------|------------------|
| | | |

| | | |
|-------------------|----------------|-------------|
| Food Waste | 963.4 | 41.6% |
| Mixed Plastics | 441.0 | 19.0% |
| Mixed Paper | 417.8 | 18.0% |
| Steel Cans | 217.1 | 9.4% |
| Glass | 133.1 | 5.7% |
| Other | 70.9 | 3.1% |
| Mixed Electronics | 31.1 | 1.3% |
| Aluminum Ingot | 24.9 | 1.1% |
| Tires | 16.3 | 1.0% |
| Total | 2,315.6 | 100% |

Source: 2020 Big Stone County SCORE Report, MPCA

Summary

The amount of mixed solid waste generated in BSC in 2020 was reported to be 3,565 tons. This was a 19.2% decrease over the previous year. As mentioned above, all eight of the communities in BSC are served by solid waste collection haulers. Approximately 24.1% of the rural residents have collection service. These residents most likely consist of households located along the lakeshore of Big Stone Lake as on-site disposal is prohibited.

The rural nature of county presents several challenges and constraints to the overall waste collection system. There are a limited number of haulers in the county, which limits customers' choices in selecting a hauler and also results in less competition and slightly higher collection prices. The location of the county and distance from the nearest landfills and processing facilities also drives up collection prices. Reporting is also a challenge as it is difficult to get accurate data from haulers as many are private businesses and are not always willing to share collection information. In addition, due to the county's location on the western border of Minnesota, haulers transport waste to different landfills out of state, which have different fees and regulations. Some haulers also have service areas covering multiple states, which also makes it difficult to report accurate data for Minnesota.

One opportunity that currently exists for the County is that of organic waste recycling. As the data above shows, this type of waste comprises a large percentage of the waste generated both locally and statewide. Work could be done to capture organic waste from area schools, hospitals, nursing homes/assisted living facilities and local grocery store in the county and divert it from the landfill. This is one of the areas the county plans to explore in the future and will be discussed later in Section 13 of this plan. If and when this program gets implemented, it would be hauled to the Swift County Recycle/Compost Center in Benson resulting in increased recycling tonnage for BSC.

4. Construction and Demolition Debris

Construction and demolition waste is managed entirely by the private sector and therefore, this data is unavailable as this waste stream is currently not separated from the general MSW stream. The County has not recorded any construction and demolition waste since 2016 when there was 27 tons reported (2022 BSC GVT).

5. Major Solid Waste Generators

The major solid waste generators in BSC are assumed to be the Ortonville Area Health Service (hospital, clinics, senior living, nursing home), Ortonville School District, Hartman’s Supervalu (grocery store) Essentia Health-Holy Trinity Hospital (Graceville), and Clinton-Graceville-Beardsley School District. The amount of waste generated by these entities has proven to be difficult to collect as it is held by the haulers and is considered proprietary. Data was collected from Ortonville Area Health Service and Ortonville Public School District in 2022 and is given below. Waste amounts from the Graceville hospital and GCB school district were estimated by BSC staff to be about half that of their Ortonville counterparts. Repeated attempts at collecting this data from the grocery store were unsuccessful. However, data from the grocery store was obtained for the 2012 Solid Waste Plan and is estimated to be fairly similar to those levels today.

Table 9: Big Stone County Major Solid Waste Generators

Ortonville Area Health Service Annual Waste Totals in Cubic Yards (CY)*

(Waste primarily consists of: diapers/pads, waste food, medical supply packaging/wrappers)

| | Garbage | Recycling |
|------------------------------|--------------|--------------|
| Hospital | 624 | 416 |
| Dialysis | 74 | - |
| Nursing home/Assisted Living | 1,456 | 1,040 |
| Total (Cubic yards) | 2,154 | 1,456 |

(*Estimated from invoicing and collections, 2022)

Essentia Health-Holy Trinity Hospital, Graceville Annual Waste Totals in Cubic Yards (CY)*

| | Garbage | Recycling |
|------------------------------|--------------|------------|
| Hospital | 312 | 208 |
| Nursing home/Assisted Living | 728 | 520 |
| Total (Cubic yards) | 1,040 | 728 |

(*Estimated by BSC, based on Ortonville Area Health Service totals)

Ortonville School District Annual Waste Totals in Cubic Yards (CY)

| | Garbage | Recycling |
|----------------------------------|---------|--------------------|
| Waste food/compostable Material) | 704* | 832* material (SSO |

(*Ortonville Public School District, 2022)

Clinton-Graceville-Beardsley School District

Annual Waste Totals in Cubic Yards (CY)*

| | Garbage | Recycling |
|------------------------|---------|-------------------|
| Waste food/compostable | 352 | 416 material (SSO |
| Material) | | |

(*Estimated by BSC, based on Ortonville totals)

Hartman's Supervalu (grocery store) Annual Waste Totals

| | Waste Produce (CY) | Recycled corrugated cardboard (tons) |
|------------------|-----------------------|---|
| Amount generated | 624 CY* | 62.4 tons* |

(*Taken from 2012 BSC Solid Waste Plan)

6. Review of Local and Regional Solid Waste Planning in the Last Five Years

Current Local and Regional Planning

The County intends to continue its solid waste management planning. Within nine and a half years BSC will submit an update to this Plan to address changes and improvements to the overall system, including regional planning and initiation of greater resource recovery and landfill abatement.

BSC recognizes the need to evaluate and consider solid waste management alternatives, including regional solutions for landfill abatement. The County is concerned with the rising cost of solid waste management, the environmental impacts of land disposal, long term waste abatement solutions, amount of shipping miles involved in disposal, not utilizing waste as an asset and continued compliance with waste reduction and recycling goals set by the State.

Past Impediments or Barriers to Development of Regional Projects:

Impediments to comprehensive regional solid waste management projects in the past have been economic, due to declining populations, lower incomes and long distances to major solid waste management facilities. Projects involving systems which require all waste generated within the County to utilize a particular system were not financially attractive due to low waste generation in the County and the availability of lower cost landfill options provided by private waste collection firms operating in the County.

Being a small, rural county imposes the need for creativity to accomplish these programs due to budgetary constraints. Funding sources are currently limited to a solid waste assessment, general levies, and a SCORE grant that doesn't keep up with increasing costs. Having a declining population far away from regional centers limits market end use opportunities, resource recovery and increases hauling costs. Since regional solid waste management facilities are dependent on volume and limited by shipping costs, the likelihood of a regional effort is minimal. With the lack of increased State grants to bolster programs, it takes dedicated staff and volunteers to maximize limited resources to comply with State requirements.

Even with such a tight budget, the BSC Board takes pride in the programs currently offered to its rural population. However, with rising costs these programs may see cutbacks and limitations and may not be able to exist over the next decade.

Resolution of Conflicting, Duplicative, or Overlapping Local Waste Management Efforts

The County has not experienced conflicting, duplicative, or overlapping management efforts. This can be attributed to the manner in which the County manages its overall system.

7. Existing System(s)

This document serves multiple purposes. It is a resource for policy makers, a reference for Environmental Services staff, a public document, and to comply with Minnesota statutory requirements for solid waste management planning.

It is the policy of BSC Environmental Department to comply with Minnesota Statutes and Rules regarding solid waste in a prudent and efficient manner, to reduce land disposal and to cooperate with counties in close proximity when capacity, technology, and expertise warrant improvements to solid waste programs.

Special collections and public information/education programs have been and will continue to be conducted. A collection site has been established for fluorescent bulbs and used oil/filters which is available during business hours only. An annual collection of electronics and white goods is done in Ortonville. Pre-registration is required for collection events and serves as a great opportunity to educate citizens on a variety of solid waste issues. We will continue to solicit education opportunities in the schools and through community organizations. The BSC Environmental Department feels it can continue to do more to increase recycling participation throughout the county using certain strategies, which include:

- Continue single sort residential curbside and drop off site recycling which led to an immediate increase in tonnage. Teamwork with the local recycling contractor is key to the promotion of recycling and its environmental and economic benefits;
- Continue a relationship with the county's school districts in an effort to establish an outreach opportunity for an education program within our school classrooms and Bonanza Education Center;
- Increase efforts to help commercial businesses understand the economic benefits of maximizing recycling tonnage, and discover sources of materials that may already be recycled, but are not being recorded or reported;
- Encourage the solid waste haulers to promote recycling through incentive plans for minimal waste generators or penalties for excessive waste generators. Promote and assure solid waste haulers are implementing volume waste pricing, as per 115A.93 subd. 3 (Ex. Rejection of solid waste containing recyclable items, rejection of excess solid waste, or additional fees for excess solid waste); and,
- Update the BSC Solid Waste Ordinance so that it can be used as an effective enforcement tool in conjunction with solid waste contracts to address BSC's concerns of haulers' providing accurate reporting/information as well as concerns related to illegal disposal.

BSC will continue its current system of solid waste management with modifications and improvements anticipated in the near future. Improvement goals include the reduction of household waste that is burned or buried on-site.

BSC acknowledges the need to reduce dependence on land disposal of solid waste and for compliance with statutory and rule requirements imposed by the State of Minnesota. Proximity to resource recovery facilities and lack of waste volume has made it economically unfeasible to utilize these options in the past, especially with budget shortfalls. The County Board will actively pursue and investigate alternatives to land disposal of its solid waste, especially at facilities within a 100-mile radius, like Pope/Douglas WTE and Fergus Falls Transfer Station which takes its waste to Perham Resource Recovery Facility. The County Board has expressed interest in local options that would employ more of its citizens as well as utilize its waste stream as an asset, rather than a liability that needs to be shipped away.

7.1 Past Solid Waste Planning Activities:

7.1.1 In February 1989, the MPCA approved the BSC Solid Waste Management Plan, which was prepared by DPRA, Incorporated, of St. Paul, MN.

7.1.2 The County landfill, operating from 1972 to 1979 under Warren Eastman, was acquired and subsequently operated by BSC from 1979 until its closure June 30, 1990.

7.1.3 On October 4, 1989, BSC entered into a contractual agreement with Stregge's Recycling Center, Inc. for pickup, transportation, processing and marketing of recyclable materials.

7.1.4 On May 24, 1990, BSC entered into a contractual agreement with Waste Management Partners of Southeast North Dakota for land disposal of MMSW at Gwinner, ND.

7.1.5 On May 24, 1990, BSC entered into a contractual agreement with Big Dipper Enterprises, Inc., owner and operator of the transfer station at Ortonville, for transfer of MMSW to Gwinner, ND.

7.1.6 In 1991, BSC entered into an agreement with MPCA and Kandiyohi County which established a household hazardous waste collection program.

7.1.7 The BSC Solid Waste Plan amendment for the mandated SCORE legislation was approved in 1991.

7.1.8 The County landfill received a Notice of Compliance on February 4, 1997. As part of the Closed Landfill Program, the MPCA assumed responsibility for necessary environmental response actions at that time.

7.1.9 Waste Management was contracted to handle county wide recycling in 2001, including residential curbside, commercial accounts, rural drop sites and service to both Hutterite Colonies.

7.1.10 The BSC Solid Waste Plan Update was approved in 2002. Meetings were attended to discuss the possibilities of switching from dependency on landfilling to the waste-to-energy facility in Fergus Falls. The Fergus Falls facility closed in 2005.

7.1.11 The County Board reinstated the solid waste assessment on June 17, 2003. The assessment covers all improved parcels of property at a flat rate of \$35. This results in approximately \$118,000 which is used to supplement the county's solid waste programs.

7.1.12 The recycling program switched to single sort in 2008 with Waste Management. Immediate increases in tonnages and participation were noted.

Planning Results

The result of BSC's substantial planning efforts is an integrated solid waste management system that has gained excellent public support. The major components include the following:

7.2.1 A transfer station is located on Highway 75 in Ortonville and is owned and operated by Waste Management of Central MN, and the collection service is available to county residents.

7.2.2 Curbside single-sort recycling service is available in the cities of Beardsley, Clinton, Graceville, Odessa and Ortonville. Drop sites are also located in each of these five municipalities. Both the Big Stone Hutterian Brethren and Lismore Hutterian Brethren Colonies receive residential recycling services as well. The cities of Barry, Johnson, and Correll do not currently have recycling drop sites.

7.2.3 BSC is a member of the regional Kandiyohi Household Hazardous Waste Program as a cosponsoring county. Collections are typically held in spring and shipped to the regional facility in Willmar via a county owned Mobile Unit.

7.2.4 Electronic waste and appliances are handled through various licensed contractors each spring when collections are organized by the Environmental Services Office. Collections are typically held on both ends of the County to service the entire population.

7.2.5 Educational activities are conducted by the Deputy Environmental Officer several times per year. School age students are the primary target for proper solid waste management. The citizenry receives education through postcards, newspaper articles, collection events, a booth at the Big Stone County Fair, radio talk shows and the BSC website.

Existing Management Structure

The County Solid Waste Management Program is administered by the Environmental Officer. The Environmental Officer conducts all field inspections, prepares service contracts, licenses waste haulers, and assists in collection events operated by the County. The Environmental Officer develops program budgets, coordinates the BSC program with other solid waste programs and reports on solid waste program operations to the County Board and State Agencies. The Deputy Environmental Officer maintains financial and volume records for solid waste activities, prepares SCORE reports, conducts

educational activities, assists with collection events and assists in planning and implementing solid waste programs.

Description of Existing Resource Recovery Programs or Facilities in Use BSC

does not have a solid waste incineration and energy recovery facility.

Description of Land Disposal Facilities in Use

BSC does not currently have any land disposal facilities in use. Therefore, the County does not have any costs to operate and maintain a facility. Mixed solid waste is hauled from the county to one of two land disposal sites located outside of the state. These facilities include the Watertown Landfill (Watertown, SD) and the Roberts County Landfill (near Sisseton, ND). Further detailed descriptions of these land disposal facilities can be found in Section 16 of this document.

Costs to operate and maintain the system

According to the County’s 2020 SCORE Report, the BSC Environmental Department had total expenditures of \$227,474 and revenues totaling \$196,846. The County does not own or operate any solid waste landfills, processing or recycling facilities.

Table 10: Big Stone County Environmental Department Revenues and Expenditures, 2020

| Expenditures | Dollars | % of Total Dollars |
|---------------------------|------------------|---------------------------|
| Administration | \$81,779 | 36.8% |
| Recycling | \$134,330 | 60.5% |
| Education | \$284 | 0.1% |
| Organics | \$0 | - |
| Source Reduction | \$1,242 | 1.0% |
| HHW Problem Materials | \$4,317 | 1.9% |
| WTE | \$0 | - |
| Total Expenditures | \$221,952 | 100% |
| | | |
| Revenues | Dollars | % of Total Dollars |
| Local Revenues | \$136,590 | 61.3% |
| SCORE | \$71,066 | 31.9% |
| Service Fee (HHW & SCORE) | \$5,253 | 2.4% |
| HHW Funding from MPCA | \$3,600 | 1.6% |
| Other revenue | \$6,450 | 2.9% |
| Total Revenues | \$222,959 | 100% |

Source: 2020 Big Stone County SCORE Report, MPCA

Summary of achievements, opportunities, challenges, or problems

Market and economic conditions – The current haulers have to transport waste greater distances due to the rural location of the county. This does not allow haulers to engage in various waste markets

and typically results in landfilling. As mentioned earlier, there is also a limited number of haulers for residents and businesses to choose from.

Availability of resource recovery programs or facilities - There is not a resource recovery facility located in BSC or adjacent counties. The nearest such facilities are located in Alexandria (Pope/Douglas Solid Waste) and Perham (Otter Tail County Solid Waste), however, both are significant distances from Big Stone and neither are currently open to negotiations at the time of this plan.

Availability of local and state funding sources - BSC Environmental Department utilizes the following funding streams to operate on an annual basis: SCORE grant, assessments, local levy, and the hazardous wastes grant.

8. Proposed System

The County Board feels that the current programs have been successful and plan to continue implementing them throughout the next ten years. This section briefly describes programs, policies and goals that will be continued for the next ten years. It should be noted, that unless specifically noted by Programs, the County's overall policy and goal is to comply with MN Statutes and Rules regarding management of its solid waste. The County Board is committed to maximizing opportunity and participation in proper management of MMSW. Programs that may be changed or need further attention are described in greater detail. The responsible person is the Environmental Services Director and source of funding will be county general funds, property tax and SCORE funds. This will remain the same unless otherwise indicated. The estimated budget for solid waste programs is located in Appendix III, and the implementation schedule will be on-going and remain constant over the next ten years. The Goal-Volume-Table, Appendix II, shows the estimated amounts of waste materials that will be generated and recycled.

In looking at raw costs for Watertown Landfill and Swift County Recycle/Compost Center, it is much more economically feasible to utilize landfilling at this time. Considering trucking costs and tipping fees only, the cost is \$42/ton at Watertown Landfill compared to \$120/ton at Swift County Recycle/Compost Center. At this time, the tipping fee is more than double at Swift County and requires more truck trips due to ton per axle restrictions being lower in MN. These figures strictly represent average cost numbers and do not reflect the actual price consumers would potentially pay, which is dependent on negotiated contracts between private haulers and cities or private individuals.

One area where the County Environmental Department will try to expand its efforts is in SourceSeparated Organic (SSO) Materials Composting. BSC understands that current efforts to keep organics out of the waste stream could be improved. Over the course of this planning period, BSC plans to target the larger food waste producers such as local schools, hospitals, and assisted living/nursing homes to collect and transport SSO materials to the Swift County Recycle Compost Center in Benson. The initial steps to develop this new program will be to seek and secure grant funding to promote and implement SSO related activities. See Section 13 for more details on the proposed program.

9. Solid Waste Reduction

Prevention and reuse are sometimes referred to as “source reduction,” which includes:

- Reusing a product in its original form
- Increasing the life span of a product
- Reducing material or the toxicity of material used
- Changing procurement, consumption, or waste generation habits to result in smaller quantities of waste or lower toxicity of waste

Based on environmental factors, the waste management hierarchy prioritizes waste reduction, reuse, recycling, and organics recovery above methods that preclude further use of the materials as shown in the figure to the right.

Waste Management Hierarchy



Existing Program

BSC considers reduction of solid waste generated as its top priority. Some of the source reduction activities as found in the source reduction section of the SCORE Report are conducted annually. These activities encourage county citizens and businesses to reduce their waste generation. One specific activity related to reduction has been the collection of printer ink cartridges, cell phones and rechargeable batteries that can be brought to the County Environmental office in Ortonville free of charge.

Proposed Program

The County will continue to promote source reduction as its number one priority. There are funds budgeted to allow extra staff time to be dedicated to source reduction education activities. Knowing how to reduce, along with the financial incentive of volume-based pricing should result in reductions. A 3% reduction will be the goal over the ten-year period of this plan. To achieve this goal, the County will need to step up the education program targeting consumers to be smart, conscious shoppers. The county also needs to set an example for the public by implementing reduction measures within the local government units. Having firsthand knowledge of how to implement such a program will be useful in helping to get other businesses to do the same. County procurement practices will occur as opportunities allow that are financially advantageous. Two areas that the County Environmental Department would like to focus on over this planning period are organic/food waste and Textiles & Electronics.

Implementation Schedule

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Solid Waste Reduction | | | | | | | | | |
| Proposed Project: | Initiate prevention of wasted food program | | | | | | | | | |
| Project Details: | Use existing materials and launch an educational campaign for institutions and/or at-home strategies to prevent wasted food | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| <i>Place an X by year of implementation:</i> | X | X | X | X | X | X | X | X | X | X |

| | |
|---------------------------|---|
| Responsible Party: | County Environmental Department, Deputy Environmental Officer |
|---------------------------|---|

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Solid Waste Reduction | | | | | | | | | |
| Proposed Project: | Textiles and Electronics | | | | | | | | | |
| Project Details: | Create materials and launch a county-wide educational campaign on the importance of reuse, types of reuse, and local reuse, and potential repair, & rental businesses/organizations | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| <i>Place an X by year of implementation:</i> | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | County Environmental Department, Deputy Environmental Officer | | | | | | | | | |

10. Solid Waste Education

Educational activities are conducted by the Deputy Environmental Officer several times per year. School age students are the primary target for proper solid waste management. The citizenry receives education through postcards, newspaper articles, collection events, a booth at the Big Stone County Fair, radio talk shows and the BSC website. Educational publications are done at a minimum once every three months through the local newspaper or via the County Environmental Department website.



Existing Program

BSC will continue its strong educational programs for its citizens based upon the principle that an informed constituency provides a strong base of support for gaining compliance and economic benefit, while reducing the need for enforcement.

BSC continues to educate its citizens and businesses on the benefits of reducing, reusing, recycling and properly disposing of solid waste. Several articles are written in local newspapers and quarterly newsletters dealing with the various aspects of properly managing solid waste. Brochures and fact sheets have been available to residents at the county fair and local shows. Students are taught how and why to recycle in the local schools and to take the message home to get parents to recycle correctly with them to reduce contamination in the bin.

Proposed Program

The County will continue to publish articles locally to raise awareness of proper methods of solid waste management, on how, when and where, as well as the benefits that go along with that. These publications will be done once every three months at a minimum. The Deputy Environmental Officer will remain the lead on educational efforts throughout the community. Besides various press releases and articles, presentations will continue to be made at the local schools on various solid waste topics and the County website will highlight programs and changes.

Implementation Schedule

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Solid Waste Education | | | | | | | | | |
| Proposed Project: | Quarterly educational publications/outreach | | | | | | | | | |
| Project Details: | Publish educational articles/press releases on a quarterly basis in local newspaper and post on Department’s website. | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| <i>Place an X by year of implementation:</i> | x | x | x | x | x | x | x | x | x | x |
| Responsible Party: | County Deputy Environmental Officer | | | | | | | | | |

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Solid Waste Education | | | | | | | | | |
| Proposed Project: | Educational presentations at local schools | | | | | | | | | |
| Project Details: | Educational presentations at local schools in BSC highlighting various topics related to solid waste disposal | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| <i>Place an X by year of implementation:</i> | x | x | x | x | x | x | x | x | x | x |
| Responsible Party: | County Deputy Environmental Officer | | | | | | | | | |

11. Recycling Programs

Recycling collection and management is currently being done via contractual agreement with Waste Management, Inc. operating out of Ortonville. The recycling contract is up in fall 2023 and will be opened up and renegotiated. Acceptable materials include:

- Plastic #1-5 bottles and containers
- Steel & Tin cans
- Aluminum cans
- Glass food and beverage containers

- Aseptic containers
- Corrugated cardboard
- Uncoated paperboard
- Phonebooks, magazines, junk mail
- Paper cartons
- Newspaper and office/printed paper



Having a declining population far away from regional centers limits market end use opportunities and increases hauling costs. There is not a local market for recyclable materials listed above. Also, due to the

rural nature of the county, haulers do not provide collection service of recyclable materials to rural residents, requiring them to transport their recyclables to their nearest community drop off site. This lack of service results in a lower capture rate than what is collected within city limits where curbside collection service is offered.

Single sort recycling services are provided via biweekly curbside collection in all communities by Waste Management, Inc. There are also 24hour/day recycling drop-sites located in Ortonville, Odessa, Clinton, Graceville, and Beardsley. Drop-sites in the communities of Barry, Correll and Johnson were eliminated due to contamination problems. In addition, all local governmental facilities have receptacles for 3+ materials per Minnesota Statute § 115A.151, subp 1.

Figure 4: Available Recycling Drop-sites



According to the County’s 2020 SCORE Report, 683 tons of material were recycled, or about 34.5% of the total mixed solid waste generated. The following table gives a breakdown of the various waste materials and their recycling capture rate. When compared to the statewide capture rate, BSC’s rates are for the most part, near statewide figures. The county has a higher capture rate than the statewide figures in the food waste and “other” categories, while mixed plastics, mixed electronics, and steel cans are all captured at significantly lower rates than their statewide counterparts.

Table 11: Big Stone County Recycling Capture Rate, 2020

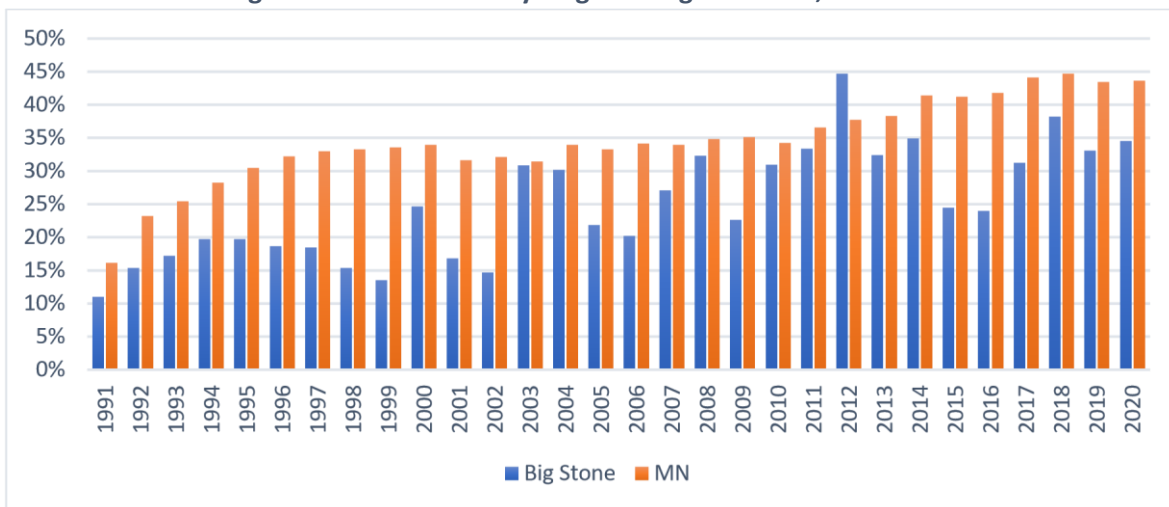
| Waste Material | Total Generation (tons) | Recycled Tons | Big Stone Co. Capture Rate | MN Capture Rate |
|----------------|-------------------------|---------------|----------------------------|-----------------|
| Food Waste | 963.4 | 548.0 | 56.9% | 30.9% |
| Mixed Plastics | 441.0 | 23.3 | 5.3% | 11.6% |
| Mixed Paper | 417.8 | 338.5 | 81.0% | 88.5% |
| Steel Cans | 217.1 | 148.3 | 68.3% | 82.7% |
| Glass | 133.1 | 81.7 | 61.4% | 69.3% |
| Other | 70.9 | 61.6 | 86.8% | 56.6% |

| | | | | |
|-------------------|---------|---------|-------|-------|
| Mixed Electronics | 31.1 | 3.1 | 9.8% | 23.7% |
| Aluminum Ingot | 24.9 | 8.6 | 34.5% | 43.3% |
| Tires | 16.3 | 16.3 | 100% | 100% |
| Total | 2,315.6 | 1,229.4 | 53.1% | - |

Source: Big Stone County SCORE Report, 2020

In 1989, Minnesota legislation set county recycling goals in Greater Minnesota at a minimum of 35% by weight of total solid waste generation. As the following graph indicates, recycling rates for both the county and the state have increased over the past 30 years. The county’s rate has been somewhat inconsistent, but that may be due to the smaller sample size and smaller population. Overall, the county’s trend has been increasing with recent combined recycling and organics rates more than doubling or tripling since 1991.

Figure 5: Combined Recycling and Organics Rate, 1991-2020



Source: Big Stone County SCORE Report, 2020

The following table shows the past five years of recycling by various materials in BSC over the past five years. As the table shows, recycling in the county has fluctuated recently, peaking in 2018 with 1,615 total tons. On a positive note, recycling tonnage of problem materials has increased each of the last four years of the reporting period, almost doubling its 2017 total.

Table 12: Tons Recycled by Material Category (Big Stone County), 2016-2020

| Material | 2016 | 2017 | 2018 | 2019 | 2020 |
|------------------|------|------|------|------|------|
| <i>Glass</i> | 104 | 117 | 203 | 101 | 82 |
| <i>Hazardous</i> | 60 | 25 | 27 | 70 | 62 |
| <i>Metal</i> | 87 | 171 | 143 | 192 | 151 |
| <i>Organic</i> | 189 | 300 | 369 | 611 | 548 |
| <i>Other</i> | 63 | 39 | 44 | 28 | 27 |
| <i>Paper</i> | 392 | 362 | 775 | 426 | 338 |
| <i>Plastic</i> | 29 | 32 | 53 | 27 | 23 |

| | | | | | |
|----------------------------|------|-------|-------|-------|-------|
| Totals | 923 | 1,046 | 1,615 | 1,454 | 1,232 |
| Problem Materials | | | | | |
| <i>Antifreeze</i> | - | 0.5 | 0.8 | 1 | 0.96 |
| <i>Electronic devices*</i> | 7.5 | 6.75 | 4.18 | 4.42 | 3.05 |
| <i>Major appliances</i> | 23.5 | 6.65 | 14.18 | 6.8 | 7.95 |
| <i>Used oil</i> | 45 | 13.45 | 14.01 | 46.84 | 35.06 |
| <i>Vehicle batteries</i> | 11 | 6 | 6 | 12.16 | 17.72 |
| <i>Waste tires</i> | 15 | 8.29 | 12.23 | 3.4 | 16.3 |
| Totals | 102 | 41.64 | 51.4 | 74.62 | 81.04 |

Source: Big Stone County Goal Volume Table, 2022

Policies and Goals

The County’s goal is to comply with MN Statute 115A.551, 552 regarding the collection and management of recyclables and to meet or exceed Minnesota’s goal of 35% by weight of total solid waste generation.

Existing Program

BSC promotes voluntary recycling by providing curbside recycling and drop-off sites for every citizen, public entity and business in the county. Volume based solid waste collection rates also encourage recycling. Curbside collection is provided twice a month for residents, public entities, institutions and commercial businesses within city limits. There are also 24-hour/day recycling drop-sites located in Beardsley, Clinton, Graceville, Odessa, and Ortonville.. Drop-sites in the communities of Barry, Correll and Johnson were eliminated due to contamination problems.

Figure 6: Available Recycling Drop-sites



Waste Management, Inc. was awarded the most recent contract to handle all recycling responsibilities for the county. The contract is good for a five-year period and includes the hauling of recyclables to

Waste Management’s material recovery facility in the Twin Cities where materials are then marketed by Waste Management. County staff is also aware of some recyclable materials from BSC being transported to McLeod County.

In October of 2008, Waste Management switched over to a single-sort system with mechanical arm pickup and provided new 96-gallon recycling carts to municipal residents. In addition, dumpsters are provided at the recycling drop-off sites in each of the communities. Recycling dumpsters are also available to best serve the commercial accounts as well as schools, government entities and Hutterite colonies which are higher generators of waste.

In January, 2010, BSC decided that they would no longer subsidize the cost of recycling for commercial accounts. Initially, the County funded commercial recycling services as a means to motivate businesses to recycle. Once accustomed to the convenience of the service, it was easier to convince businesses to continue recycling at their own expense since disposal fees are volume based and expenses are tax deductible. Some commercial accounts continued their recycling services, however, many of the smaller businesses realized they could increase their profit margin if they discontinued their recycling services and utilized the drop sites at no charge. As a result, it is difficult for Waste Management to accurately report commercial tonnage because it is being co-mingled with the residential recycling at the drop sites.

Proposed Program

Waste Management, Inc. operating out of the transfer station in Ortonville will continue to work independently with local businesses to increase recycling and reduce solid waste costs since the County is no longer subsidizing the recycling service for them. In addition, Waste Management Inc. will continue to provide residential curbside and drop site recycling service for the county through the fall of 2023 when their contract expires. The County will open up negotiations for a new recycling contract at that time with a licensed hauler which can continue to meet the recycling needs of the county while maintaining the level of service and single-sort recycling program that has been provided by Waste Management Inc. in the past. Residential and commercial recycling services will remain in future contracts and will also include the Hutterite colonies, institutions, and tax-exempt entities such as the school districts, churches, city and county offices as well as other government offices. Additionally, the County intends to continue collecting fluorescent bulbs, printer cartridges, cell phones and batteries for recycling through various vendors on an ongoing basis.

In an effort to clean up recycling drop sites, new signs and dumpster placards were installed at the sites to help educate residents about acceptable and prohibited materials in hopes of reducing the amount of non-recyclable materials left at the sites. Security cameras are also rotated around the various drop-off locations to monitor and deter users from contaminating the sites.

Implementation Schedule

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Recycling Programs | | | | | | | | | |
| Proposed Project: | Enter new recycling contract with recycling hauler | | | | | | | | | |
| Project Details: | Open up negotiations with qualified, licensed recycling hauler and enter into new five-year agreement | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| <i>Place an X by year of implementation:</i> | X | | | | | X | | | | |

| | |
|---------------------------|------------------------------|
| Responsible Party: | BSC Environmental Department |
|---------------------------|------------------------------|

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Recycling | | | | | | | | | |
| Proposed Project: | Provide curbside and drop-site recycling collections | | | | | | | | | |
| Project Details: | Continuously provide curbside recycling collection service twice a month and collect recycling from available drop-sites (Ortonville, Odessa, Clinton, Graceville, and Beardsley) | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | BSC’s contracted recycling hauler | | | | | | | | | |

| | | | | | | | | | | |
|--|--|------|------|------|------|------|------|------|------|------|
| Program Area: | Recycling Programs | | | | | | | | | |
| Proposed Project: | Collection of hazardous and hard to recycle items | | | | | | | | | |
| Project Details: | Ongoing collection of fluorescent bulbs, printer cartridges, cell phones and batteries in Ortonville for recycling through various vendors | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | BSC and selected vendors | | | | | | | | | |

12. Yard Solid Waste Management Programs

Policies and Goals

BSC’s goal is to comply with MN Rules 9215.0610 and to ensure that its citizens are aware that yard waste is to remain separated from the solid waste stream.



Existing Program

BSC encourages residents to reduce yard waste and/or reuse yard waste as beneficial mulch. The county has made waste haulers and citizens aware that the Ordinance prohibits yard waste from land disposal. Currently, the city of Ortonville is the only community that has a special curbside yard waste collection and does so in the fall of each year. Tonnages collected are unknown at this time. However, the County feels yard waste in the solid waste stream is a very small percentage due to outreach efforts and availability and ease of disposal options. All eight of the cities within the county offer a yard waste/brush drop-off site outside city limits to help ensure that yard waste does not end up in the land disposal solid waste stream. This combined with the overwhelming amount of open space available outside of municipal limits makes yard waste management a very minor concern in regard to leachate and odor generation. There are no municipal composting sites offered in the County, however, it is estimated that approximately 5% of residents operate backyard composting sites for re-use in gardens.

Proposed Programs

The County proposes that the current programs continue as they are successful. Drop-off sites and collections as described above will continue over the planning period. Educational efforts will continue as to the benefits of utilizing yard waste. An educational program will be implemented to inform residents how to minimize yard waste generation through on-site composting, mulching and/or low maintenance or naturalized landscaping. The overall goal of the County is to keep all yard waste out of the landfill. Since the county is largely agricultural, there is a high rate of recognition and use of yard waste as being beneficial. Again, with a high percentage of open space it is easy for residents to dispose of material on-site. Currently there are no yard waste composting efforts due to ease of access to large quantities of high-quality fill and therefore, no demand in that market.

Implementation Schedule

| | | | | | | | | | | |
|--|--|------|------|------|------|------|------|------|------|------|
| Program Area: | Yard Solid Waste | | | | | | | | | |
| Proposed Project: | Continue to offer yard waste collection in Ortonville and drop-off sites | | | | | | | | | |
| Project Details: | Continue spring/fall collections and continue to provide yard waste drop off locations | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | Solid waste haulers and various cities | | | | | | | | | |

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Yard Solid Waste | | | | | | | | | |
| Proposed Project: | Continue educational efforts related to yard waste | | | | | | | | | |
| Project Details: | Offer educational program to educate public on benefits of on-site composting, mulching, and low maintenance or natural landscaping | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | County Deputy Environmental Officer | | | | | | | | | |

13. Source-Separated Organic (SSO) Materials Composting

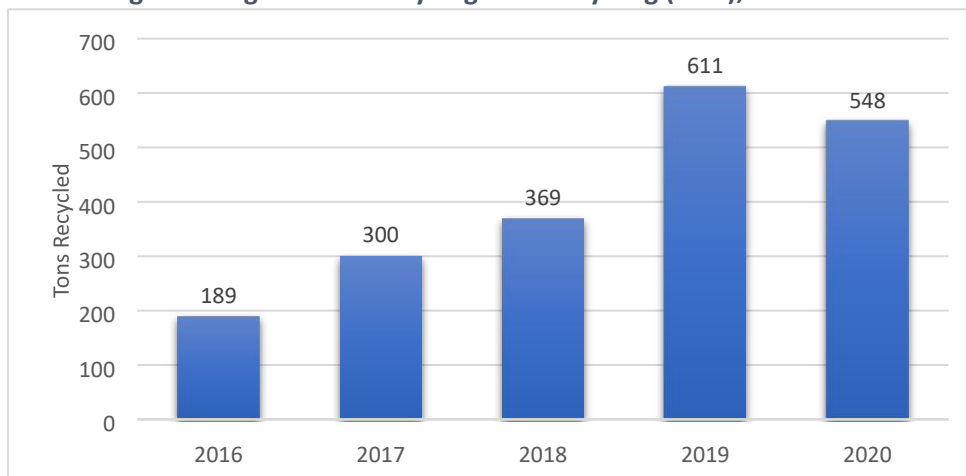
Policy and Goals

Source-separated organic (SSO) materials are those that have been separated at the point of generation from non-compostable material including, but not limited to, food scraps, food processing waste, and soiled or unrecyclable paper. Food wastes are very prominent in the waste that many Minnesotans throw away. Of the food waste that is thrown away, almost two-thirds of it could have been eaten. Food is very resource intensive to produce, so every effort should be made to use as much of it as possible to prevent it from being sent to disposal or recovery. The State of Minnesota has recently launched a grant program targeted at preventing food from being wasted and promoting food rescue (food to people).



The amount of SSO that was collected in the BSC has increased steadily since 2016, but recently declined by just over 10% from 2019 to 2020 (611 tons collected in 2019 compared to 548 tons in 2020). The reason for this decline is likely due to the pandemic as many food preparers had limited operations during several months of 2020. Also, food donated directly to food shelves is not included in the reported tonnage. As many restaurants and food service facilities were temporarily shut down, a large amount of food was donated to those in need instead of going to waste. Also related to the pandemic are supply chain issues which resulted in less over-purchasing of foods leading to less food waste.

Figure 7: Big Stone County Organics Recycling (tons), 2016-2020



Source: Big Stone County SCORE Report, 2020

Existing Program

There are no existing composting programs or facilities within the county and none are anticipated to be developed or implemented by the County to compost food waste with yard waste at this time. The nearest utilized composting facility for BSC is located in Benson in neighboring Swift County.

Proposed Programs

The County has identified source separated organics as a waste they would like to target during the implementation of this plan. At this time, the County has not formally implemented any programs aimed at the reduction or recycling of organic wastes. However, due to the increasing amount of food waste and the attention that it has garnered mentioned above, the County understands the importance of playing a role in reducing the amount of organic waste that reaches landfills, either by reduction or recycling.

Since there are currently no programs in place, the County will need to create a program by seeking outside funding in the form of grants. Two MPCA grant programs that could provide funding assistance to get the program started are the Greater Minnesota Recycling and Composting Grant and the Environmental Assistance grant program. If funding assistance is secured, the County Environmental Department will then target the large generators of organic/food waste such as the local schools, assisted living/nursing homes, and local grocery store and work with them first in educating them on the importance of reduction and recycling of organic waste. Shortly after the public education campaign starts, additional bins/collection receptacles will be placed at the targeted facilities. The next step would be to work with haulers to develop a collection system to efficiently and effectively transport the new local waste stream to the nearest processing facility, which is currently the Swift County Recycle/Compost Center in Benson. Once implemented and up and running, BSC Environmental Department conservatively estimates that approximately four additional tons of SSO material would be diverted from the landfill each month. This estimate was derived from conversations with nearby Stevens County who is reporting 8.5 tons of SSO material per month. Stevens County has about twice the population as Big Stone County, but has similar characteristics.

Implementation Schedule

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Source-Separated Organic Materials Composting | | | | | | | | | |
| Proposed Project: | Develop a Source Separated Organics program | | | | | | | | | |
| Project Details: | Seek funding through MPCA's Greater MN Recycling and Composting Grant or Environmental Assistance grant programs to get program started | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | | | | | | | | |
| Responsible Party: | BSC Environmental Department | | | | | | | | | |

| | | | | | | | | | | |
|--|--|------|------|------|------|------|------|------|------|------|
| Program Area: | Source-Separated Organic Materials Composting | | | | | | | | | |
| Proposed Project: | Develop a Source Separated Organics program | | | | | | | | | |
| Project Details: | Hire staff/intern to target and educate organic waste generators on benefits of the organics recycling | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | | | X | | | | | | | |
| Responsible Party: | BSC Environmental Department | | | | | | | | | |

| | | | | | | | | | | |
|--|--|------|------|------|------|------|------|------|------|------|
| Program Area: | Source-Separated Organic Materials Composting | | | | | | | | | |
| Proposed Project: | Develop a Source Separated Organics program | | | | | | | | | |
| Project Details: | Implement organic reduction/collection program by developing a collection program to haul organic waste to Swift County Recycle/Compost Facility | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | | | X | X | X | X | X | X | X | X |
| Responsible Party: | BSC Environmental Department | | | | | | | | | |

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Source-Separated Organic Materials Composting | | | | | | | | | |
| Proposed Project: | Develop a Source Separated Organics program | | | | | | | | | |
| Project Details: | Educate and encourage current organic waste producers to use proper bags/collection methods to dispose of waste | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | BSC Environmental Department | | | | | | | | | |

14. Municipal Solid Waste (MSW) Composting Facilities

BSC does not currently have a MSW composting facility within its borders. It does not have any current plans to investigate the feasibility of a potential composting facility as the demand for compost is not present. As mentioned in the previous two sections, the County plans to implement efforts aimed at diverting food waste/organic materials from the waste stream. If these efforts prove successful in the long term and result in a demand for compost, the County may initiate discussions on the feasibility of such a facility down the road. For the present time, organic waste will be transported to the Swift County Recycle/Compost Center in Benson.

15. Solid Waste Incineration and Energy Recovery

There are no existing programs or facilities and there are no plans to implement during the next 10-year planning cycle.

16. MSW Land Disposal Facilities

BSC does not currently have any land disposal facilities within its borders. The only active waste collection/handling facility in BSC is the Ortonville transfer station, which is privately owned and operated by Waste Management of Central Minnesota.



Solid waste generated within the county and destined for land disposal is currently hauled to one of two facilities – Watertown Landfill (near Watertown, SD) and Roberts County Landfill (near Sisseton, SD). For the purposes of this solid waste plan, the preferred final disposal option for BSC is landfilling at the Watertown Landfill.

Cost Analysis

When looking at raw costs for Watertown Landfill and Swift County Recycle/Compost Center, it is much more economically feasible to utilize landfilling at this time considering the trucking costs and tipping fees of \$42/ton at Watertown Landfill compared to \$120/ton at Swift County Recycle/Compost Center. At this time, the tipping fee is almost triple at Swift County and requires more truck trips due to ton per axle restrictions being lower in MN. These figures strictly represent average cost numbers and do not reflect the actual price consumers would potentially pay, which is dependent on negotiated contracts between private haulers and cities or private individuals.

Facility 1: Watertown Landfill, Watertown, SD

Operational History:

The Watertown Landfill is a municipal solid waste disposal facility owned and operated by the City of Watertown, South Dakota. This facility currently serves as the main solid waste management system for the county's waste as all but the city of Beardsley's waste is landfilled here. A superintendent, collection supervisor and landfill supervisor staff the 160-acre permitted site. The facility is located south of Watertown, South Dakota and currently consists of three closed cells and a fourth cell that was opened in the fall of 2011. The facility takes an average of 181 tons of municipal solid waste daily and anticipates another 43 years of operation with the land they currently own.

Permitted Capacity:

The facility is permitted for less than 150,000 tons per year and currently takes 56,500 tons per year.

Available Capacity/Life Expectancy:

Cell 4 was opened in the later part of 2011 and the site has the potential for a total of eight cells, all with varying sizes and capacities. The site is expected to last another 43 years. As mentioned above, the current operational site consists of 160 acres, however, the City owns an additional 80-acre parcel of land adjacent to the operating site that can be utilized for future expansion when needed.

Degree of Development of Technology

The facility is operated and constructed under EPA and South Dakota approved Sub-Title D solid waste regulations.

Permitting Status

The operating permit for the landfill is issued by the South Dakota Department of Environment and Natural Resources. Permits are valid for a five-year period and the current operating permit expires in October 2022 and will be renewed.

Location

Watertown Landfill is located at 45606 175th Street, Watertown, SD 57201. The legal description of the property is Section 21, Township 116 North, Range 52 West in Codington County. It is three miles south and one mile east of Watertown, SD, which is approximately 55 miles from Ortonville.

Dependency on Volume

The landfill is dependent on waste volumes that generate tipping fees to fund operational and financial assurance costs.

Tipping Fees

Gate rates per ton for municipal solid waste are \$42.00 and the rate for wood, white goods and yard waste is \$24.50/ton. Haulers from outside the area pay an additional \$14.00/ton.

Long Term Liability/Risk Exposure

The City of Watertown is required by state and federal laws to set aside funds to finance closure and post-closure costs including maintenance and monitoring. To comply with these requirements, the City reports a portion of these investments as an operating expense each period based on landfill capacity. The estimated liability for landfill closure and post-closure costs at December 31, 2010 was \$283,172, based on a used capacity of 19% of the landfill. The City of Watertown will recognize the remaining estimated cost of closure and post-closure care of \$1,224,957 as the remaining estimated capacity is filled, with an estimated closure date of 2097. As of December 31, 2010, the City held \$366,236 in a restricted asset account within the Landfill Fund to be used for these purposes.

Facility 2: Roberts County Landfill, near Sisseton, SD

(Note: This landfill is presented for informational purposes only and is not considered an alternative since only the town of Beardsley, MN delivers their MSW to this facility. This accounts for approximately 114 tons per year from BSC.)

Operational History

The Roberts County Landfill is owned and operated by Roberts County, SD. This landfill began operation in 1985 and accepts municipal solid waste. The facility accepted a total of 8,900 tons of waste in 2000, with 6,700 tons of that comprising MSW. Total permitted area is 70 acres on an 80-acre site with the current active portion consisting of six acres. Cell Number one opened in October 1994 and closed in the fall of 2001 with a maximum capacity of 46,900 tons. It has a plastic liner and was also capped with plastic and 16 inches of clay cover followed by 6 inches of black dirt which was seeded to grass as the final cover. A lateral expansion into a new adjacent Cell #2 was constructed in 2001. This expansion includes a clay *in situ* liner constructed of two feet of compacted clay according to Subtitle D standards. This cell has a 20-year life expectancy and will be filled in a five-phase operation. Stages 1-3 are full and closed. Roberts County is currently using Stages 4-5 of Cell 2 for disposal.

Permitted Capacity

Roberts County Landfill is a Type IIB facility and may accept a maximum of 24,999 tons of waste per year but averages 12,000/ton/yr. The facility operates under a South Dakota Department of Environment and Natural Resources Permit #21-19 which expires on August 10, 2026. They also operate according to EPA Sub-Title D requirements.

Available Capacity/Life Expectancy

Permitted capacity is 24,999 tons of waste per year with a 20-year life expectancy under current design plans.

Degree of Development of Technology

The facility is constructed and operated according to EPA Sub-Title D and the State of South Dakota solid waste regulations. This includes a plastic/clay composite liner, leachate collection system and storage retention pond, methane gas monitoring, and a dedicated financial assurance fund. A secondary leachate collection system was constructed in 2010 due to high water levels in the first pond. A pump is necessary to transfer water into the secondary system.

Permitting Status

The current permit (#21-19) was granted on August 10, 2021 and is valid through August 10, 2026.

Location

The Roberts County Landfill is located in the West ½ of the Northeast ¼ of Section 8, Township 125 North, Range 50 West in Roberts County, South Dakota and approximately 26 miles west of the city of Beardsley.

Dependency on Volume

The landfill is dependent on waste volumes that generate tipping fees to fund operational and financial assurance costs. **Tipping Fees**

Tipping fees are set at \$47.50/ton in county and \$50/ton for haulers outside the county.

Long Term Liability/Risk Exposure

A dedicated trust fund was initially established within the last two years beginning with a balance of \$50,000. A post-closure care amount is currently set aside at \$300,000. The fund can only be accessed with permission from the state of South Dakota Department of Environment and Natural Resources. With the total contribution from BSC of approximately 114 tons of MSW per year from a single town, liability risk exposure to county residents is considered low by using this facility.

Consistency with State Policy

Land disposal places last in the State of Minnesota's Solid Waste Management Hierarchy.

Risk to Air, Surface and Ground Water

If operated according to all required permits and state and federal rules and statutes, the environmental risks are considered low at this facility; however, cell liner failure leading to groundwater contamination or gas generation affecting air quality are risks inherent with this type of disposal facility.

Implementation Schedule

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | MSW Land Disposal Facilities | | | | | | | | | |
| Proposed Project: | N/A - the County does not own or operate a land disposal facility | | | | | | | | | |
| Project Details: | | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| <i>Place an X by year of implementation:</i> | | | | | | | | | | |
| Responsible Party: | | | | | | | | | | |

17. Solid Waste Tire Management Programs

Policy and Goals

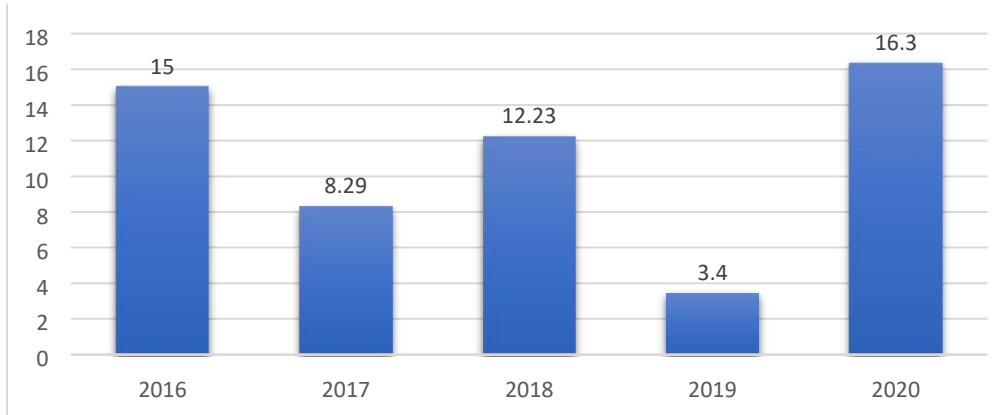
The County’s goal is to ensure that no tire dumps exist and that farming operations keep waste tire stockpiles to a minimum. Residential tire stockpiles are unacceptable and the County expects residents to properly dispose of waste tires when buying new tires. Illegal dumping will be enforced by law enforcement.



Existing Program

The 2020 BSC SCORE Report states that the county generated 16.3 tons of tires in 2020 with a 100% capture rate, meaning that no tires were landfilled. Tire dealerships accept waste tires as mandated by MN Statutes. Currently, there are approximately three dealerships that sell tires and in turn, accept used tires. Generally speaking, with a purchase, dealerships have a minimal charge for disposal of the old tires, but without a purchase, they charge according to size. Although improper disposal in on-site piles has traditionally occurred in rural counties, educational efforts and special county collections have reduced illegal stockpiles. General education is done only via telephone calls and by dealers. The county feels that the current management system is adequate. Current discussions conclude that mandatory disposal fees on new tire purchases on a statewide basis would significantly enhance the percentage of tires properly managed. Currently, waste tires are picked up by State licensed tire disposal contractors and marketed accordingly for beneficial reuse and recycling.

Figure 8: Big Stone County Waste Tires Collected (tons), 2016-2020



Source: Big Stone County GVT, 2022

Proposed Program

BSC will continue the current system and encourage law changes that would allow for tire dealers to collect mandatory fees. The County feels that if fees were consistently implemented statewide, citizens would accept the proper management stream and pay the disposal fee rather than pile them in groves or dispose of them in the ditches. There are no known unpermitted tire dumps, however, it is known that some farms do have small piles generated from farming operations. Tire dealers will be educated on MN Rules 9220 to ensure compliance. The Solid Waste Management Ordinance, section 17, adopts MN Rules 9220 by reference and the County feels that the ordinance meets all applicable rules and statutes. Staff time related to this program would be spent along with other problem materials such as used oil, filters, etc. and amount to 5% of staff time or less (for waste tire management alone).

Implementation Schedule

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Solid Waste Tire Management | | | | | | | | | |
| Proposed Project: | Waste tire collection | | | | | | | | | |
| Project Details: | Continue to support, promote and enforce waste tire collection and disposal | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | BSC Environmental Department, local law enforcement, local tire dealers | | | | | | | | | |

18. Electronic Products

Policy and Goals

BSC's goal is to comply with MN Statute 115A.9565 regarding its management of the electronics waste stream.

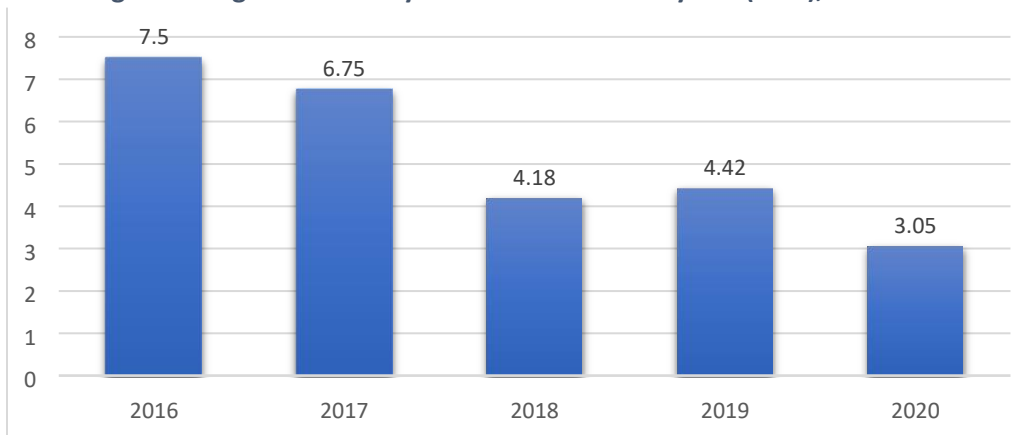


Existing Program

Licensed haulers are aware of laws banning certain electronics in the solid waste stream and assist the County in reducing ewaste in landfills.

In 2007, BSC held its first electronics collection for the general public including residential, commercial and non-profit organizations. Licensed vendors were and continue to be contracted with by the County to recycle and dispose of electronics. Collection numbers have increased each year as the only other option for local disposal is through Waste Management at substantially higher rates. There are no private businesses in the county that are licensed to collect electronics and proximity to “big box” stores that sell electronics is a minimum of 60 miles.

Figure 9: Big Stone County Electronic Waste Recycled (tons), 2016-2020



Source: Big Stone County Goal Volume Table, 2022

Proposed Program

BSC proposes to continue the annual collection process as long as it can provide the service at reasonable prices. Educational efforts occur through post-card mailings to every residence announcing collection dates, proper disposal and recycling opportunities. Additionally, the county fair booth will highlight this newer section of solid waste management. Staff time dedicated to this program will be approximately 5% as county staff runs this program parallel with their major appliance program (also 5% staff time) as they are similar in terms of education, collection and expenses. **Implementation Schedule**

| | | | | | | | | | | |
|--|--|------|------|------|------|------|------|------|------|------|
| Program Area: | Electronic Products | | | | | | | | | |
| Proposed Project: | Continue annual electronic waste collection event | | | | | | | | | |
| Project Details: | Annually promote and conduct an electronic wastes collection event in Ortonville | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | BSC Environmental Department | | | | | | | | | |

| | |
|----------------------|----------------------------|
| Program Area: | Electronic Products |
|----------------------|----------------------------|

| | | | | | | | | | | |
|--|--|------|------|------|------|------|------|------|------|------|
| Proposed Project: | Electronic products waste education | | | | | | | | | |
| Project Details: | Continued public education related to electronic waste via postcards, County Fair, website | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | County Deputy Environmental Officer | | | | | | | | | |

19. Major Appliance Management

Policy and Goals

BSC’s goal is to comply with MN Statute 115A.552, subd. 1, as well as 115A.9561, regarding management of major appliances in its solid waste stream.

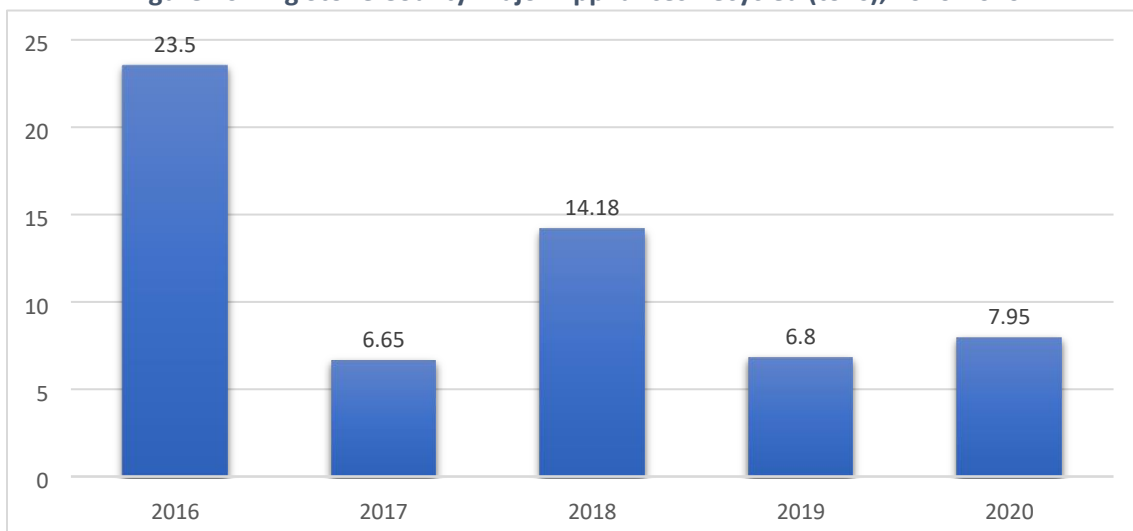


Existing Program

The County contracts with various licensed vendors to come after collection events to pick up and properly dispose of major appliances. The last contract was \$10 per appliance containing freon while smaller items were free. This has proven very successful and popular with citizens as it is a very affordable option to properly dispose of these large items.

Throughout the year, Waste Management in Ortonville accepts appliances at their transfer station. There is a fee per item that is significantly higher than at the County-sponsored collection events. Current markets on scrap metal have also enabled local scrap dealers to accept non-freon appliances at no cost to the consumer, thus increasing the overall willingness of businesses and residents to properly recycle these items rather than store them.

Figure 10: Big Stone County Major Appliances Recycled (tons), 2016-2020



Source: Big Stone County Goal Volume Table, 2022

Proposed Program

The County will continue to sponsor annual collection events utilizing licensed contractors and will respond to public complaints regarding improper storage/disposal. BSC plans to continue the current programs, as they are successful and do not deplete solid waste funds. Licensed contractors are utilized to ensure compliance with all applicable state, federal and local regulations. This ensures hazardous wastes associated with appliances are handled appropriately. Being a small county, any collection events attempted by unlicensed individuals is quickly dealt with through contact by county or state staff. Local licensed solid waste haulers are extremely good in dealing with the public regarding proper disposal and educating them on bans on landfilling appliances. The County plans to continue its current efforts with a goal of recovering appliances at the current levels or around 10 tons per year. Staff time dedicated to this program will be approximately 5% as county staff runs this program parallel with their electronics program (also 5% staff time) as they are similar in terms of education, collection and expenses.

Implementation Schedule

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Major Appliance Management | | | | | | | | | |
| Proposed Project: | Appliance collection event | | | | | | | | | |
| Project Details: | Promote and conduct major appliance collection events | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | County Environmental Officer, selected licensed contractors | | | | | | | | | |

| | | | | | | | | | | |
|--|--|------|------|------|------|------|------|------|------|------|
| Program Area: | Major Appliance Management | | | | | | | | | |
| Proposed Project: | Continue to promote and accept major appliance waste at Ortonville Transfer Station | | | | | | | | | |
| Project Details: | Promote availability of major appliance collection at Ortonville Transfer Station including hours, fees, accepted appliances, etc. | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | BSC Environmental Department, Waste Management, Inc. | | | | | | | | | |

20. Automotive Mercury Switches, Motor Vehicle Fluids & Filters, and Lead-Acid and Dry Cell Batteries

Policy and Goals

BSC's goal is to have overall compliance with MN Statutes 115A.915 and 115A.916. Our policies dictate that these materials are best handled through the automotive service and salvage industries.

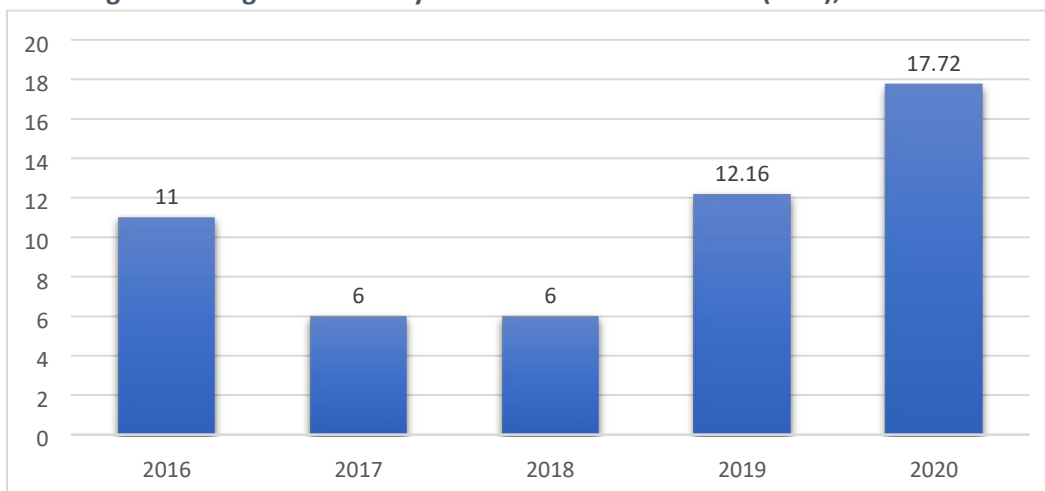


Existing Program

Residents have been made aware that it is illegal to improperly dispose of used oil and of the hazards of doing so. Used oil and oil filters are collected by the County Highway Department at no charge. Residents can also dispose of used oil, filters and antifreeze in Ortonville at any time. The county advertises this service and it has been quite successful. In addition, several businesses and citizens collect oil to utilize for heating purposes. Most farmers have vendors or local contacts that are willing to collect large amounts of used oil for little or no charge.

Automotive batteries are collected at local automotive dealers and other businesses that sell these products. Also, auto salvage companies must remove all switches before crushing vehicles. Dry cell batteries are collected by Design Electronics in Ortonville or at the County Environmental Services office in Ortonville as required by Minnesota Statutes. Rechargeable batteries and cellphones can also be brought to the County office free of charge. While becoming increasingly rare, mercury switches are accepted at annual hazardous waste collections or at our Regional Facility in Kandiyohi County.

Figure 11: Big Stone County Vehicle Batteries Collected (tons), 2016-2020



Source: Big Stone County Goal Volume Table, 2022 **Proposed**

Program

The current programs will continue throughout the next ten years. The County estimates that approximately 5% or less of staff time will be allocated to this program.

Implementation Schedule

| | | | | | | | | | | |
|--|--|------|------|------|------|------|------|------|------|------|
| Program Area: | Automotive Mercury Switches, Motor Vehicle Fluids and Filters, and Lead-Acid and Dry Cell Batteries | | | | | | | | | |
| Proposed Project: | Used motor oil/filters collection | | | | | | | | | |
| Project Details: | Used motor oil and oil filters can be brought to County Highway Department | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | County Highway Department, BSC Environmental Department | | | | | | | | | |

| | | | | | | | | | | |
|--|--|------|------|------|------|------|------|------|------|------|
| Program Area: | Automotive Mercury Switches, Motor Vehicle Fluids and Filters, and Lead-Acid and Dry Cell Batteries | | | | | | | | | |
| Proposed Project: | Dry cell battery collection | | | | | | | | | |
| Project Details: | Dry cell batteries can be disposed at County Environmental Services Office in Ortonville | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | BSC Environmental Department | | | | | | | | | |

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Automotive Mercury Switches, Motor Vehicle Fluids and Filters, and Lead-Acid and Dry Cell Batteries | | | | | | | | | |
| Proposed Project: | Proper disposal of any automotive mercury switches | | | | | | | | | |
| Project Details: | Promote collection of mercury switches at Kandiyohi County Recycling and Household Hazardous Waste Facility | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | BSC Environmental Department | | | | | | | | | |

21. Household Hazardous Solid Waste (HHW) Management

Policy and Goal

BSC's goal is to comply with MN Statute 115A.96, subd. 6 regarding management of household hazardous waste in its solid waste stream.

Existing Program

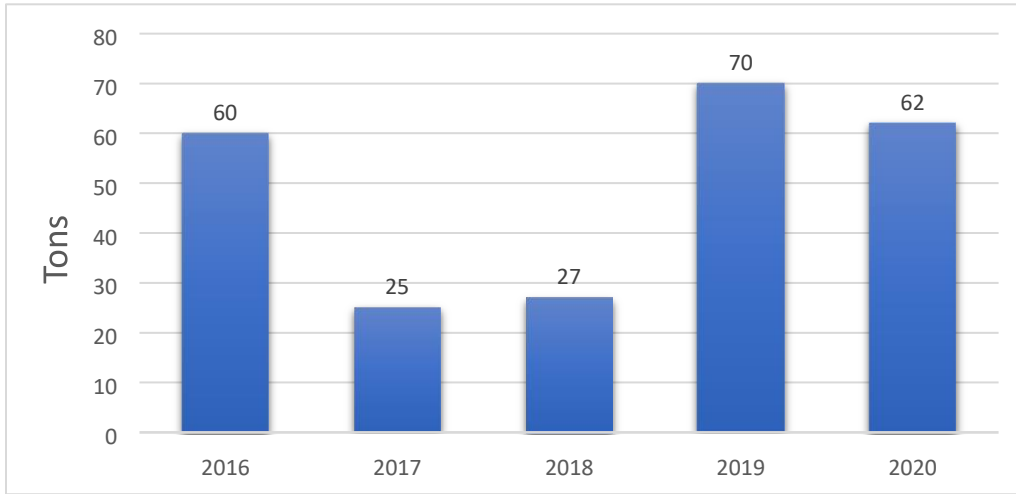
Household Hazardous Waste (HHW) is managed through special collections in the county. BSC has .2 FTE staff working on HHW which consists of the Environmental Officer and the Deputy. Big Stone is also a member of the Kandiyohi County Regional Household Hazardous Waste Program and has access to their facility. Hazardous Waste Collections are held every year within the county using a mobile unit purchased in 2007 and are held in Ortonville. Wastes received are sorted and lab-packed for transport to the Kandiyohi County facility for proper disposal. The collections are highly publicized via postcards to taxpayers, and newspapers. In addition, radio talk shows are done periodically to educate the public on the importance of reduction of hazardous waste usage, alternatives to hazardous cleaning products, proper disposal through HHW collections and facilities, and reuse through product exchanges. Collection pre-registration also serves as an ideal opportunity to further educate the public individually about specific items. Should residents miss the collection event date, they can dispose of HHW at the regional facility located in Willmar, MN. In addition, the BSC Environmental office at the courthouse has an ongoing collection of fluorescent bulbs at state contract prices for anyone needing to dispose of their bulbs.



Articles are also written in the paper throughout the year to highlight upcoming events and proper management strategies described above. Businesses that inquire about disposal are directed to fill out an application for a Small Quantity Generator through the HHW facility in Kandiyohi County.

The amount of hazardous waste recovered has varied over the past five years. Most recently in 2020, 62 tons were recycled. The amounts recycled in 2017 and 2018 were less than half the amounts in 2016, 2019 and 2020.

Figure 12: Hazardous Wastes Tons Recycled (Big Stone County), 2016-2020



Source: Big Stone County SCORE Report, 2020

Lab pack materials, latex paint and agricultural waste are the top three collected household hazardous wastes in the past five years.

Table 13: Big Stone County Household Hazardous Wastes Collected, 2017-2021

| Household Hazardous Material | 2017 | 2018 | 2019 | 2020 | 2021 |
|------------------------------|------|------|------|------|------|
| Latex Paint (gallons) | 334 | 385 | 223 | 416 | 416 |
| Oil-based paint (gallons) | 143 | 140 | 175 | 117 | 117 |
| Flammable liquids (gallons) | 53.5 | 106 | 89 | 59 | 57 |
| Lab pack materials (pounds) | 501 | 807 | 683 | 576 | 802 |
| Aerosols (quantity) | 221 | 193 | 339 | 381 | 187 |
| Ag waste (pounds) | 257 | 522 | 485 | 624 | 608 |
| PCB ballasts (pounds) | - | 49 | - | - | - |
| Non-PC paint (gallons) | 24 | - | - | - | - |

Source: Big Stone County Environmental Department invoices from Kandiyohi County

Proposed Program

BSC proposes to continue maintaining and implementing its current programs with an education emphasis on the reduction of hazardous waste use and proper disposal. Annual collections will continue to be held in an effort to keep hazardous waste separate from municipal solid waste since this method has been very successful in the past.

Implementation Schedule

| | | | | | | | | | | |
|---------------------------|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Household Hazardous Solid Waste Management | | | | | | | | | |
| Proposed Project: | Hazardous waste collection | | | | | | | | | |
| Project Details: | Promote and conduct annual hazardous waste collection event | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |

| | | | | | | | | | | |
|--|--|------|------|------|------|------|------|------|------|------|
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | BSC Environmental Department | | | | | | | | | |
| Program Area: | Household Hazardous Solid Waste Management | | | | | | | | | |
| Proposed Project: | Hazardous waste public education | | | | | | | | | |
| Project Details: | Public education campaign focused on hazardous wastes reduction and proper disposal conducted via local media outlets, postcards | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | County Deputy Environmental Officer | | | | | | | | | |

22. Demolition Debris Management

Policy and Goals

BSC's goal is to comply with MN Rules 9215.0690. Policies and ordinances dictate that State Rules must be followed regarding demolition debris.



Existing Program

The County closed its Demolition Debris Facility in 1995. Currently, there is no facility in the county that collects demolition debris.

However, there are several permitted facilities within a relatively close distance of BSC including ones in the communities of Morris and Wheaton in Minnesota as well as one in Milbank, SD. Also, various companies licensed by the County supply dumpsters for larger projects. Waste Management also accepts demolition debris loads at its transfer station. Large building demolitions are typically handled through the MPCA's Permit-by-Rule Program. The Environmental Officer is responsible for enforcement of demolition debris disposal and is a certified Type III operator to assist the MPCA with site placement and monitoring loads. Costs with this program are minimal as there are no facilities. Staff salary, continuing education and technical assistance are the only costs to the County.

Proposed Program

BSC has looked at the feasibility of starting another facility, but felt that the cost outweighed the benefits since the tonnage generated is just not that high. The current disposal methods will be utilized throughout this planning period.

Implementation Schedule

| | |
|--------------------------|-------------------------------------|
| Program Area: | Demolition Debris Management |
| Proposed Project: | Continue current disposal methods |

| | | | | | | | | | | |
|--|--|------|------|------|------|------|------|------|------|------|
| Project Details: | Encourage demolition contractors to haul demolition debris to permitted demolition landfills | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | X | X | X | X | X | X | X | X | X | X |
| Responsible Party: | BSC Environmental Department | | | | | | | | | |

23. Solid Waste Ordinance and Licensing

Existing Program

The BSC Solid Waste Management Ordinance was adopted on May 17, 1994 and has not been updated since that time because it still encompasses all the aspects necessary to be effective. However, the County plans to review and update it as necessary in the coming years to ensure it is accurate and applicable to current needs. It has proven to be a helpful tool in implementing local programs as well as an enforcement tool when dealing with violations of State and Local regulations. Violations are handled on a complaint basis by the Environmental Officer through written correspondence and deadlines for resolution. When landowners fail to respond to enforcement orders, the County Attorney is then involved through judicial order and/or penalty. The ordinance covers volume-based fees, demolition debris and on-site disposal. Currently, the volume-based fees are the sole financial incentive in place to promote the reduction of MSW and encourage recycling in both the commercial and residential sector. Incentive possibilities are limited since the County does not own or manage its own landfill.

On-site disposal continues to be the biggest challenge for BSC due to its large population of farmers with agricultural exemptions for household garbage. In an effort to work toward goals and objectives reducing on-site disposal, education on the long-term effects of burn barrels and availability of solid waste hauling continues to be a focus at the County fair and in newspaper articles. The Ordinance has a section detailing licensing of facilities and haulers within the County to ensure compliance with State and Local policies and regulations. The County currently has six licensed haulers. A list of these haulers can be found in Section 3 of this plan.

The Environmental Officer is responsible for administering the Ordinance as well as all programs spelled out in this plan.

Proposed Program

The County foresees minor amendments to its Solid Waste Management Ordinance to clean up outdated language in relation to some of the statute and insurance references. A resolution is in place banning the burning of garbage in the Shoreland District and residential zones - it will also be incorporated into the Ordinance when it is updated.

Implementation Schedule

| | | | | | | | | | | |
|---------------------------|--|------|------|------|------|------|------|------|------|------|
| Program Area: | Solid Waste Ordinance and Licensing | | | | | | | | | |
| Proposed Project: | Minor amendment(s) to Solid Waste Management Ordinance | | | | | | | | | |
| Project Details: | Update outdated language in ordinance related to state statute and insurance and adopt | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |

| | | | | | | | | | | |
|--|--|---|--|--|--|--|--|--|--|--|
| Place an X by year of implementation: | | X | | | | | | | | |
| Responsible Party: | BSC Environmental Department, County Commissioners | | | | | | | | | |

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Solid Waste Ordinance and Licensing | | | | | | | | | |
| Proposed Project: | Minor amendment(s) to Solid Waste Management Ordinance | | | | | | | | | |
| Project Details: | Incorporate language into the ordinance prohibiting burning of garbage in Shoreland District and residential zones. | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | | X | | | | | | | | |
| Responsible Party: | BSC Environmental Department, County Commissioners | | | | | | | | | |

| | | | | | | | | | | |
|--|---|------|------|------|------|------|------|------|------|------|
| Program Area: | Solid Waste Ordinance and Licensing | | | | | | | | | |
| Proposed Project: | Minor amendment(s) to Solid Waste Management Ordinance | | | | | | | | | |
| Project Details: | Incorporate language into the ordinance requiring licensed haulers to provide accurate and timely collection data/reporting | | | | | | | | | |
| Projected Timeline | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Place an X by year of implementation: | | X | | | | | | | | |
| Responsible Party: | BSC Environmental Department, County Commissioners | | | | | | | | | |

24. Solid Waste Staffing

The Solid Waste Staff is housed in the County Environmental Services Office which covers a multitude of programs such as: planning and zoning; feedlot management; wetland conservation act; shoreland and floodplain management and septic system regulation. There are two full-time staff to cover these responsibilities. As such, 34% of the budget and staff is dedicated to solid waste management resulting in a .30 FTE. As the County population continues to decline, this level of staffing should be sufficient as long as all services are contracted to private firms.

25. Solid Waste Program Funding

It is the policy of BSC to ensure adequate funding to continue and enhance programs to manage solid waste. These funds are in the form of the SCORE grant, MPCA Household Hazardous Waste Grant, and the local levy match requirement. Additionally, a solid waste assessment was added in 2003 to bolster the solid waste programs. The ten-year solid waste budget can be found in Appendix III, which itemizes capital and operations of the BSC's integrated solid waste management system, using 2022 current budget and an inflation rate of 3%.

26. Plan Review and Ten-Year Update

If, in the next ten years, the County sees a need to further enhance the above programs or change its budget, it may do that as seen fit to best serve its residents. In 2032, the Solid Waste Plan will be updated and the draft for that plan will be submitted six months prior to the due date.

27. Development of Numeric Goal/Volume Table

See Appendix II.

28. Development of Solid Waste Program Budget

It is the policy of BSC to ensure adequate funding to continue and enhance programs to manage solid waste. These funds are in the form of the SCORE grant, MPCA Household Hazardous Waste Grant, and the local levy match requirement. Additionally, a solid waste assessment was added in 2003 to bolster the solid waste programs. The ten-year solid waste budget can be found in Appendix III, which itemizes capital and operations of the BSC's integrated solid waste management system, using 2022 current budget and using an inflation rate of 3%.

Refer to Budget Appendix III

29. Alternatives to Proposed System

BSC will continue to monitor changes in state regulations and costs associated with solid waste management. The Environmental Services staff will attend regional meetings, conferences, and be in contact with MPCA staff to stay up to date on changes that would make it economically and environmentally feasible to switch to a higher priority management system. The County Board, through the Environmental Committee, will be kept abreast on any changes that would benefit BSC residents.

Major operational difficulties are unforeseen as waste is currently going to several large, permitted landfills with many years of additional capacity. In the unlikely event that one landfill would become unavailable, haulers could still utilize the other landfills. Additionally, as identified above, Swift County Recycle/Compost Center could be an alternative, but would come at a greater expense to county residents and would need to be worked out in the various city contracts.

As cities contract separately for solid waste collection, if one hauler no longer meets contractual obligations, that city would simply contract with other area haulers who are licensed in the County. This would also be the case in the event the County recycling contractor did not meet contractual obligations. The County's solid waste management system is rather dynamic even though it deals with a relatively small amount of tonnage. Since the County does not rely on one system or facility, major shortfalls in solid waste management are not likely.

There have not been any recent discussions at the county level regarding alternatives to the current solid waste system due to the lack of any realistic and/or feasible possible alternatives.

30. Environmental and Public Health Impacts

BSC estimates a high percentage of rural residents dispose of waste on-site by burning or burying. Articles are written in local papers to promote use of collection services by private haulers. A county fair display annually provides citizens with the harms of this type of disposal and the alternative options available to them, and compliance of state statutes 18.16, 88.17 and 88.22. Rural residents are reminded that burn barrels were banned in 1969, and only those persons who own or operate land used for farming can dispose of household waste on land used for farming if it is done in a nuisance-free, pollution-free, and aesthetically pleasing manner to avoid pollution to air, surface water and ground water. Education is seen as the primary tool to gain compliance. However, local law enforcement is quick to cite violations of illegal burning and dumping to reinforce the importance of proper solid waste management.

The County Board of Commissioners has also passed a resolution that strictly prohibits burning in shoreland and residential zones. The Environmental Services staff serves as the lead to educate shoreland residents through personal interaction. Conservation officers and sheriff deputies issue citations when educational efforts fail.

Illegal Disposal: All disposal of solid waste must be in accordance with applicable Agency Rules and County Ordinance, specifically Section 16 of the BSC Solid Waste Management Ordinance, 1994. No person may dispose of waste in an area or at a facility which is not permitted to accept that waste.

Consistent with MN Statute 115A.99, Subdivision 1, a person who unlawfully places any portion of solid waste in or on public or private lands, shorelands, roadways, or waters is subject to a civil penalty of not less than twice nor more than five times the amount of cost incurred by the state agency or political subdivision to remove, process, and dispose of the waste. A state agency or political subdivision that incurs costs as described in this section may bring an action to recover the civil penalty, related legal, administrative, and court costs, and damages for injury or pollution of the lands, shorelands, roadways or waters where the waste was placed if owned or managed by the entity bringing the action. Civil penalties collected under this subsection must be deposited in the general fund of the jurisdiction enforcing the penalties.

31. Solid Waste Facility Siting Program (if needed)

No facilities are planned to be sited by the county within the period covered by this plan. However, the County Board has expressed interest in pursuing any local options that would allow us to utilize our waste as an asset. If it proves economically feasible throughout the planning period, the Board will pursue the possibility of siting a facility.

32. Public Participation Program

Minutes of the BSC Planning Commission and the BSC Board of Commissioners are all kept at the BSC Courthouse located in Ortonville. Any discussions or input that occurs during those meetings would be open for review by the public. Concerns and suggestions taken by staff from citizens or private solid

waste services are documented and kept on file at the Environmental Services Office. Public hearings are typically held on changes to plans or ordinances to ensure involvement of concerned citizens.

The County will submit the final draft version (this is after all changes have been incorporated into the plan) for MPCA approval. The MPCA will grant preliminary approval and the Plan is put on public notice in a local newspaper for 30 days and if no comments the County needs to submit a Board resolution that it has approved the Plan.

Before final approval of the plan, the MPCA Commissioner shall request the county to submit a certified copy of a resolution, passed by the county that approves the plan or plan amendment as the county's solid waste management plan. No approval by the MPCA Commissioner of a plan or plan amendment shall be final until a resolution is received by the agency. After the MPCA receives the Resolution, the County will be issued a Findings of Fact from the MPCA approving the Plan.

33. Multicounty Planning

There have not been any multi-county discussions in the past ten years and County staff does not foresee any discussions in the near future.

34. Implementation Schedule

See individual sections for implementation schedules.

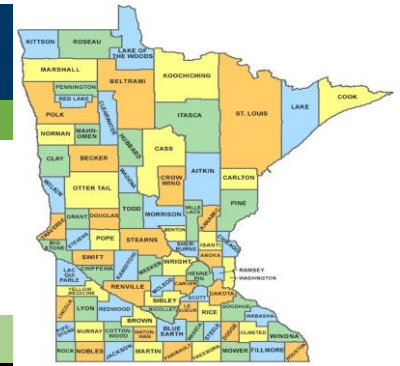
Appendix I

Minnesota DEED Big Stone County Profile (August
1, 2022)

COUNTY PROFILE

Big Stone Co.

Big Stone Co. is a part of Economic Development Region 6W, which is located in the Southwest Planning Region.



POPULATION CHARACTERISTICS

2021 population: **5,145 people**

Big Stone Co. suffered a negative natural increase - more deaths than births from 2020 to 2021, but also experienced net in-migration - meaning more people moved in than moved out. In addition to domestic in-migration, Big Stone Co. did not see international in-migration (see Table 1).

Table 1. Cumulative Estimates of the Components of Population Change, 2020-2021

| | Total Population Change | April 1, 2020 to July 1, 2021 | | | | | |
|--------------------|-------------------------|-------------------------------|--------------|--------|---------------|---------------|----------|
| | | Natural Increase | Vital Events | | Net Migration | | |
| | | | Births | Deaths | Total | International | Domestic |
| Big Stone Co. | -21 | -33 | 71 | 104 | 12 | 0 | 12 |
| State of Minnesota | 896 | 12,512 | 79,493 | 66,981 | -11,734 | 4,213 | -15,947 |

Source: U.S. Census Bureau, Population Estimates Program

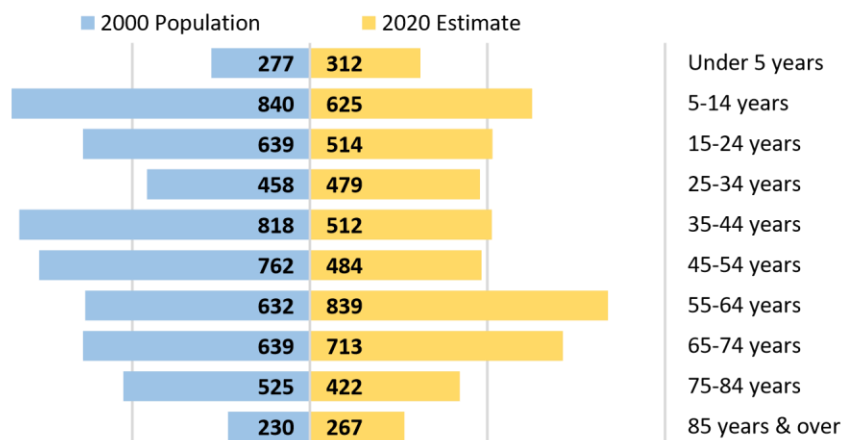
Big Stone Co.'s population decreased over the past decade, ranking as the 65th fastest growing of the 87 counties in the state from 2010 to 2020. It is now the 83rd largest in the state. Big Stone Co.'s population has an older median age than the state and a larger percentage of people aged 65 years and older. The population is aging, especially as the Baby Boom generation moves through the population pyramid (see Figure 1).

Table 2. Population by Age Group, 2020

| | Number | Percent |
|-------------------------|--------------|---------------|
| Under 5 years | 312 | 6.0% |
| 5-14 years | 625 | 12.1% |
| 15-24 years | 514 | 10.0% |
| 25-34 years | 479 | 9.3% |
| 35-44 years | 512 | 9.9% |
| 45-54 years | 484 | 9.4% |
| 55-64 years | 839 | 16.3% |
| 65-74 years | 713 | 13.8% |
| 75-84 years | 422 | 8.2% |
| 85 years & over | 267 | 5.2% |
| Total Population | 5,166 | 100.0% |

Source: U.S. Census Bureau, Population Estimates

Figure 1. Population Pyramid, 2000-2020



Population change, 2010- **-124 people**
-2.4% decline

Median Age: **48.3 years**
state: 202038.3 years

Compared to the state, Big Stone Co. has a smaller percentage of foreign-born residents. From 2010 to 2020, Big Stone Co. saw an increase in the number of foreign-born residents, which was faster than the statewide increase.

| Table 3. Place of Birth for the Foreign Born Population, 2020 | Big Stone Co. | | Change 2010-2020 | | Minnesota | |
|---|---------------|-------------|------------------|---------------|-------------|--------------|
| | Number | Percent | Number | Percent | Percent | Change |
| Foreign-born Population | 58 | 1.1% | 31 | 114.8% | 8.2% | 28.3% |
| Europe | 6 | 10.3% | -11 | -64.7% | 9.7% | 1.9% |
| Asia | 0 | 0.0% | 0 | #DIV/0! | 37.1% | 28.5% |
| Africa | 0 | 0.0% | 0 | #DIV/0! | 26.6% | 78.2% |
| Oceania | 0 | 0.0% | 0 | #DIV/0! | 0.4% | 15.4% |
| Americas: | 52 | 89.7% | 42 | 420.0% | 26.1% | 7.8% |
| <i>Latin America</i> | 46 | 79.3% | 44 | 2200.0% | 23.6% | 9.6% |
| <i>Northern America</i> | 6 | 10.3% | -2 | -25.0% | 2.5% | -6.3% |

the Foreign Born Population, 2020

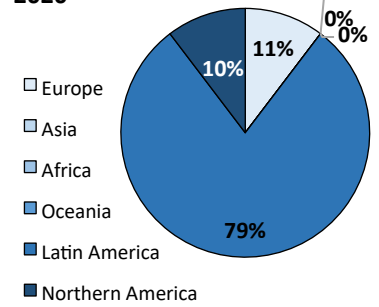
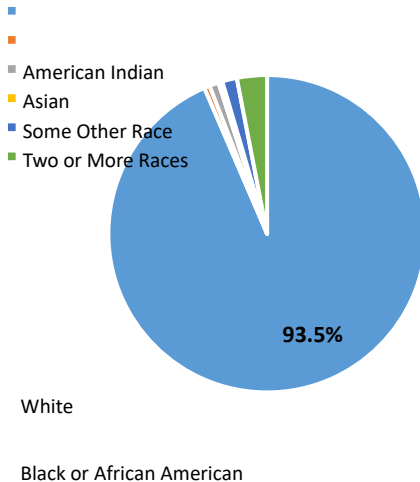


Figure 2. Place of Birth for

Source: U.S. Census Bureau, 2016-2020 American Community Survey

Big Stone Co.'s population was becoming more racially diverse over time. Since 2010, the county's white population declined, but the number of people of other races increased (see Table 4).

Figure 3. Population by Race, 2020



| Table 4. Race and Hispanic Origin, 2020 | Big Stone Co. | | | Minnesota | |
|---|---------------|---------------|-----------------------|---------------|-----------------------|
| | Number | Percent | Change from 2010-2020 | Percent | Change from 2010-2020 |
| Total | 5,166 | 100.0% | -3.0% | 100.0% | 8.9% |
| White | 4,832 | 93.5% | -7.8% | 77.5% | -2.6% |
| Black or African American | 29 | 0.6% | 70.6% | 7.0% | 54.9% |
| American Indian or Alaska Native | 49 | 0.9% | 1125.0% | 1.2% | 24.0% |
| Asian or Other Pac. Islanders | 21 | 0.4% | 90.9% | 5.3% | 46.4% |
| Some Other Race | 77 | 1.5% | 450.0% | 3.0% | 122.8% |
| Two or More Races | 158 | 3.1% | 315.8% | 6.1% | 221.3% |
| Hispanic or Latino origin | 140 | 2.7% | 129.5% | 6.1% | 47.9% |

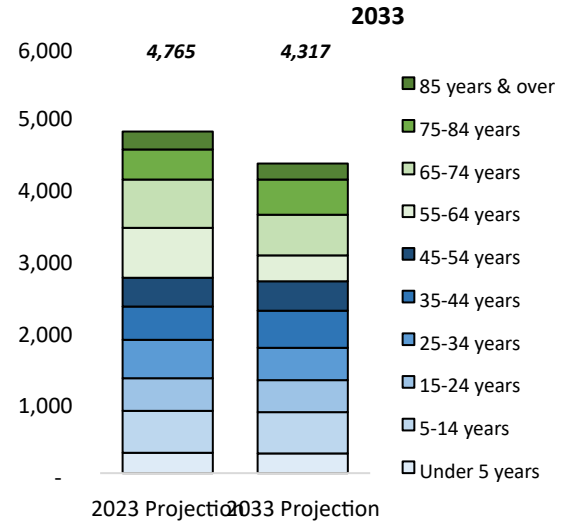
Source: U.S. Census Bureau

POPULATION PROJECTIONS

According to the Minnesota State Demographic Center, Big Stone Co.'s population is expected to decline from 2023 to 2033, with a rate of change that is slower than the projected statewide growth rate (5.6%). Despite the decline, the number of people aged 65 years and older is expected to decrease over the next decade (see Figure 4 and Table 5).

| Big Stone Co. | 2023 Projection | 2033 Projection | Numeric Change | Percent Change |
|-------------------------|-----------------|-----------------|----------------|----------------|
| Under 5 years | 284 | 275 | -9 | -3.2% |
| 5-14 years | 585 | 576 | -9 | -1.5% |
| 15-24 years | 457 | 446 | -11 | -2.4% |
| 25-34 years | 535 | 452 | -83 | -15.5% |
| 35-44 years | 462 | 517 | 55 | 11.9% |
| 45-54 years | 404 | 411 | 7 | 1.7% |
| 55-64 years | 693 | 361 | -332 | -47.9% |
| 65-74 years | 677 | 567 | -110 | -16.2% |
| 75-84 years | 419 | 490 | 71 | 16.9% |
| 85 years & over | 249 | 222 | -27 | -10.8% |
| Total Population | 4,765 | 4,317 | -448 | -9.4% |

Figure 4. Projections by Age Group, 2023-



Source: Minnesota State Demographic Center

EDUCATIONAL ATTAINMENT

Big Stone Co. has a lower percentage of adults (18 years & over) with at least a high school diploma than the state (92.8%), and a lower percentage of people with at least some college experience. Big Stone Co. also has a higher percentage of people with an Associate's degree and a lower percentage of people with a Bachelor's degree or higher.

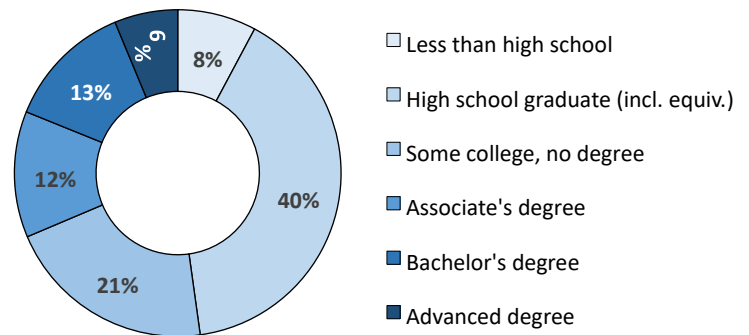
Percentage of the adult population (18 years & over) with at least a high school diploma:

92.2%

College-educated: **52.2%**
state: 68.0%

Associate's Degree: **12.5%**
Bachelor's Degree: **12.6%**
Advanced Degree: **6.3%**

Figure 5. Educational Attainment, 2020



Source: U.S. Census Bureau, 2016-2020 American Community Survey

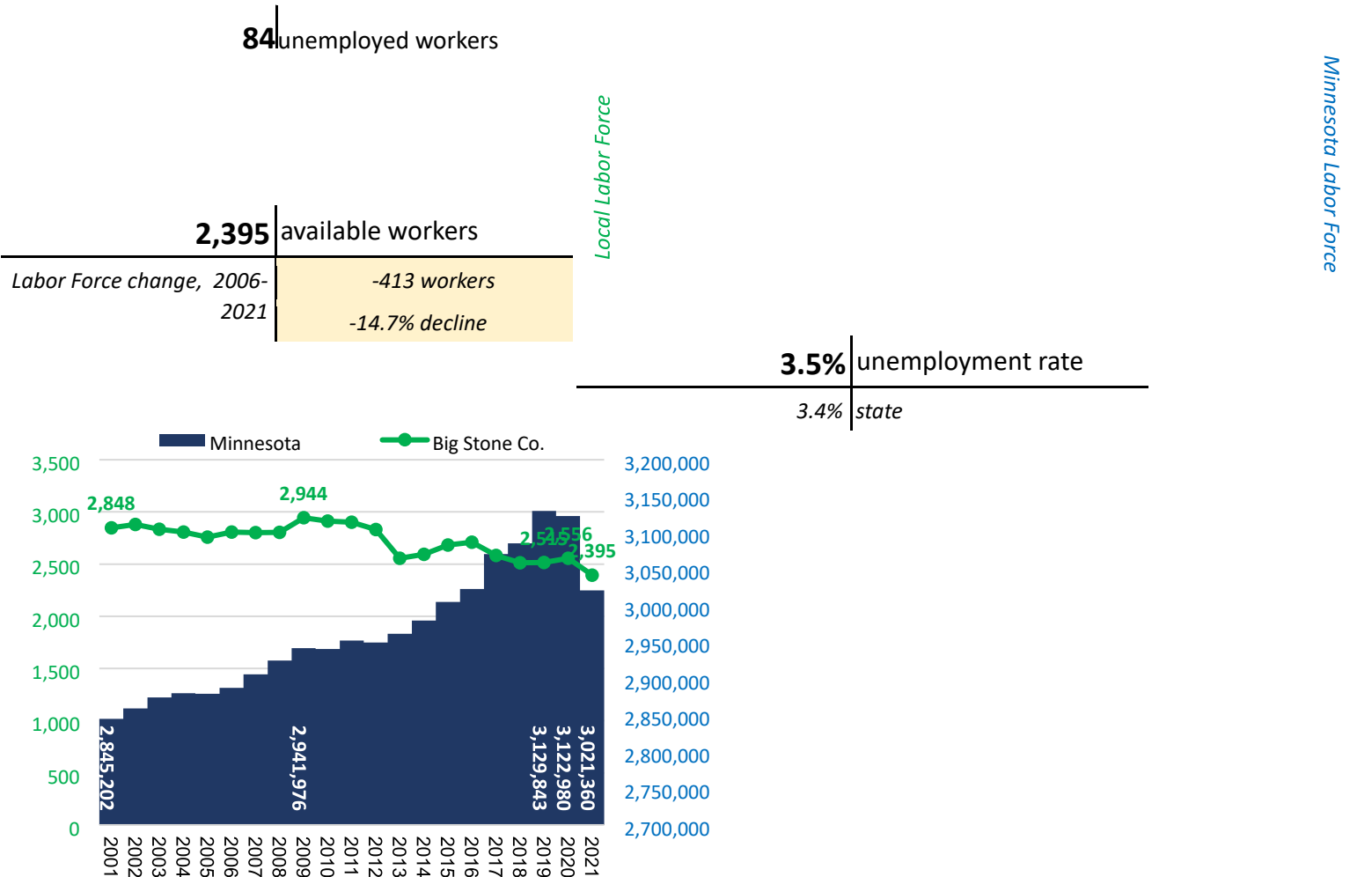
At 3.5%, Big Stone Co. had a higher unemployment rate than the state in 2021. After the pandemic recession Big Stone Co.'s unemployment rate decreased compared to 4.9% in 2020, and declined compared to the 4.4% rate posted in 2019, pre-pandemic. The number of unemployed workers actively seeking work in Big Stone Co. declined over the past year, and is down compared to 2019.

COUNTY PROFILE

Big Stone Co.

LABOR FORCE TRENDS

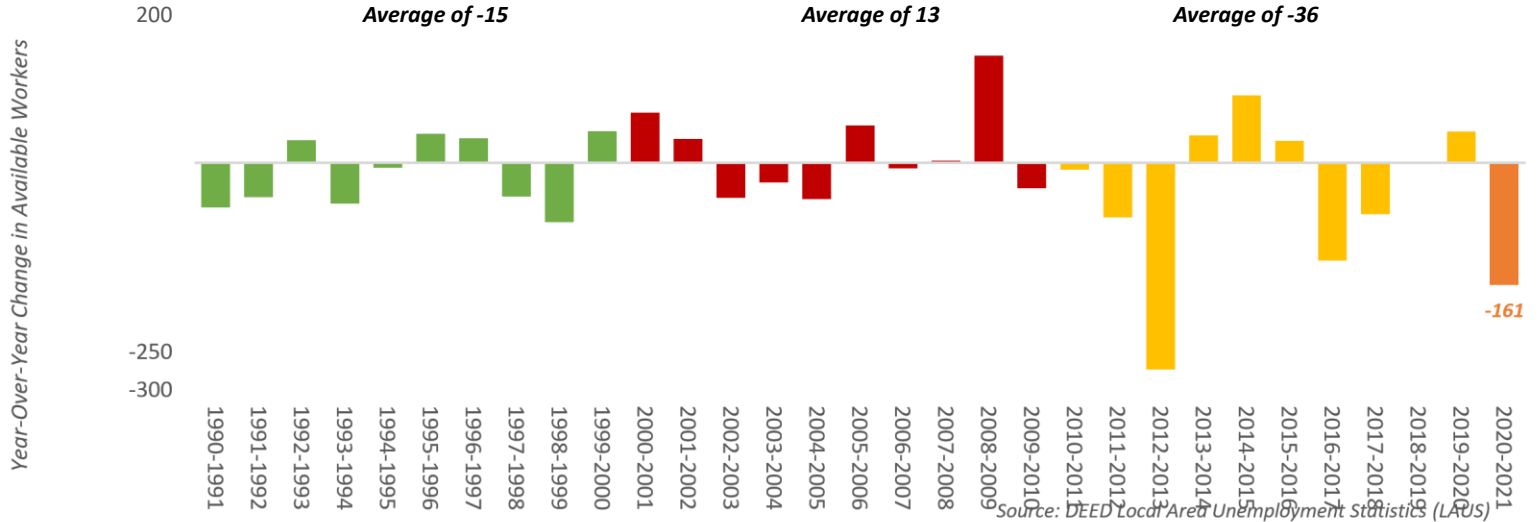
Figure 6. Annual Labor Force Estimates



Source: DEED Local Area Unemployment Statistics

Labor force growth has slowed in recent years. After experiencing a net loss of -14.6 workers each year from 1990 to 2000, Big Stone Co. averaged an annual gain of 12.9 new workers from 2000 to 2010, and most recently a loss of -35.5 fewer workers since 2010 (see Figure 7). Moving forward, Big Stone Co. is expected to see a labor force decline from 2023 to 2033 (see Table 6).

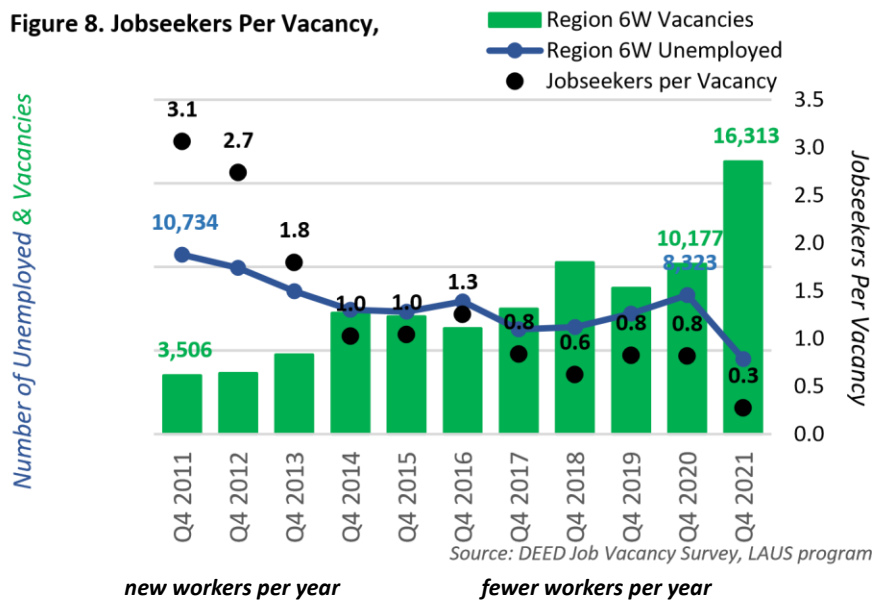
Figure 7. Annual Change in Labor Force, 1990-2021



| Age Group | Labor Force Projection | |
|--------------------------|------------------------|--------------|
| | 2023 | 2033 |
| 16 to 24 years | 278 | 276 |
| 25 to 54 years | 1,216 | 1,197 |
| 55 to 64 years | 477 | 249 |
| 65 years & over | 190 | 166 |
| Total Labor Force | 2,161 | 1,888 |

The labor market had grown extremely tight in recent years, with less than 1 jobseeker per vacancy until the pandemic recession intervened in early 2020 and the number of unemployed workers spiked. Job vacancies in Southwest reached new highs in the 4th quarter of 2021, quickly bringing back challenges in finding new workers and the lowest jobseeker-per-vacancy ratio on record (see Figure 8).

Figure 8. Jobseekers Per Vacancy,



fewer workers per year

150

100

50

0

-50

-100

-150

-200

2011-2021

20,000

15,000

Source: Minnesota State Demographic Center 10,000

5,000

-

LABOR FORCE CHARACTERISTICS

Big Stone Co. had a lower labor force participation rate than the state. The labor force in Big Stone Co. is less racially diverse than the state (where 84.8% of workers are white alone), but is becoming more diverse over time.

Table 7. Employment Characteristics, 2020

| | Big Stone Co. | | | Labor Force by Gender | | | |
|--------------------------|--|--------------|-------------|-----------------------|-----------------|--------------|--------------|
| | In Labor Force <i>(available workers)</i> | Labor | | Unemp. Rate | Partic. Rate | Male | Female |
| | | Force | Rate | | | | |
| | | Rate | Rate | | | | |
| Total Labor Force | 2,322 | 58.1% | 2.8% | 69.7% | 3.6% | 1,286 | 1,036 |
| 16 to 19 years | 59 | 43.4% | 5.1% | 53.2% | 11.0% | 16 | 43 |
| 20 to 24 years | 248 | 95.8% | 0.4% | 84.6% | 6.0% | 149 | 99 |
| 25 to 44 years | 846 | 89.9% | 5.1% | 88.8% | 3.2% | 459 | 387 |
| 45 to 54 years | 422 | 79.2% | 2.1% | 87.6% | 2.7% | 202 | 220 |
| 55 to 64 years | 570 | 68.9% | 1.1% | 73.0% | 2.8% | 347 | 223 |
| 65 to 74 years | 147 | 23.7% | 1.4% | 27.9% | 2.2% | 92 | 55 |
| 75 years & over | 30 | 4.4% | 0.0% | 6.6% | 2.4% | 21 | 9 |

Employment Characteristics by Race & Hispanic Origin

| | White alone | Black or African American | Hispanic or Latino | Asian or Other Pac. Islanders | American Indian & Alaska Native | Some Other Race | Two or More Races |
|---------------------------------|-------------|---------------------------|--------------------|-------------------------------|---------------------------------|-----------------|-------------------|
| White alone | 2,273 | 57.7% | 2.4% | 69.3% | 3.0% | 97.9% | 0 |
| Black or African American | 0.0% | 0.0% | 71.3% | 8.8% | 0.0% | 12.6% | 0.1% |
| Hispanic or Latino | 0.0% | 0.0% | 71.3% | 8.8% | 0.0% | 12.6% | 0.1% |
| Asian or Other Pac. Islanders | 0 | #DIV/0! | #DIV/0! | 71.2% | 4.3% | 0.0% | 4 |
| American Indian & Alaska Native | 3 | 100.0% | 0.0% | 58.9% | 12.6% | 0.0% | 0.1% |
| Some Other Race | 66.7% | 0.0% | 77.7% | 6.1% | 0.2% | 0.0% | 4 |
| Two or More Races | 40 | 88.9% | 25.0% | 73.6% | 7.4% | 0.0% | 1.7% |
| Hispanic or Latino | 35 | 55.6% | 0.0% | 76.5% | 6.1% | 0.0% | 0.0% |

Figure 9. Labor Force by

Employment Characteristics by Disability

| | | | | | | |
|---------------------|-----|-------|------|-------|------|--------------|
| With Any Disability | 133 | 55.9% | 4.5% | 53.0% | 8.6% | 97.9% |
|---------------------|-----|-------|------|-------|------|--------------|

Employment Characteristics by Educational Attainment

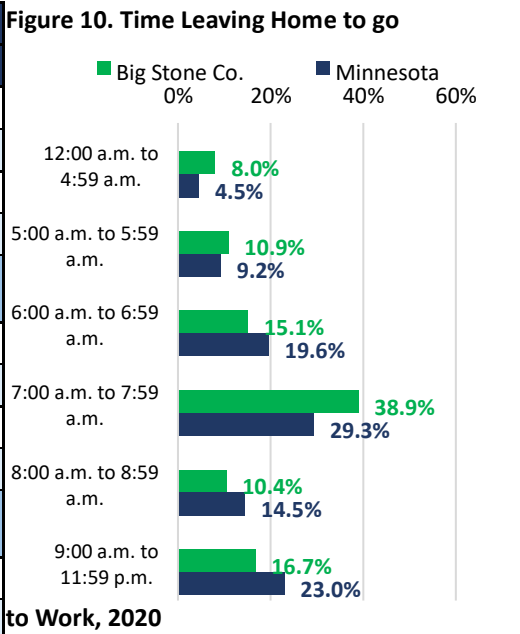
| | | | | | | |
|----------------------------|-------|-------|------|-------|------|---------------------------------|
| Population, 25 to 64 years | 1,837 | 79.8% | 3.2% | 84.5% | 3.0% | White alone |
| Less than H.S. Diploma | 71 | 50.4% | 3.6% | 66.3% | 4.2% | Black or African American |
| H.S. Diploma or Equivalent | 557 | 70.1% | 0.5% | 78.5% | 2.6% | American Indian & Alaska Native |

| | | | | | | | | |
|-------------------------------|------|-------|------|-----------------|------|-------------------------------|-----------------------------|-----|
| COUNTY PROFILE | | | | | | Big Stone Co. | | |
| Some College or Assoc. Degree | 806 | 88.6% | 4.6% | 85.3% | 3.0% | Asian or Other Pac. Islanders | Bachelor's Degree or Higher | 404 |
| 88.6% | 0.0% | 90.0% | 1.7% | Some Other Race | | | | |

Source: 2016-2020 American Community Survey, 5-Year Estimates Two or More Races

A smaller percentage of workers in Big Stone Co. worked in the same county in which they live compared to the state. Big Stone Co. also had a shorter average commute time than the state.

| Table 8. Commuting Characteristics, 2020 | Big Stone Co. | | Minnesota | |
|--|---------------|---------|--------------|---------|
| | Number | Percent | Number | Percent |
| Worked in state of residence | 1,791 | 82.2% | 2,833,431 | 97.6% |
| Worked in county of residence | 1,390 | 63.8% | 1,872,503 | 64.5% |
| Worked out of county of residence | 401 | 18.4% | 960,928 | 33.1% |
| Worked outside state of residence | 388 | 17.8% | 69,675 | 2.4% |
| MEANS OF TRANSPORTATION TO WORK | | | | |
| Car, truck, or van | 1,863 | 85.5% | 2,441,512 | 84.1% |
| Public transportation (excl. taxicab) | 17 | 0.8% | 92,899 | 3.2% |
| Other method (walk, bike, taxi, etc.) | 87 | 4.0% | 119,027 | 4.1% |
| Worked at home | 211 | 9.7% | 249,667 | 8.6% |
| TRAVEL TIME TO WORK | | | | |
| Less than 10 minutes | 763 | 35.0% | 455,788 | 15.7% |
| 10 to 19 minutes | 669 | 30.7% | 873,835 | 30.1% |
| 20 to 29 minutes | 316 | 14.5% | 644,490 | 22.2% |
| 30 to 44 minutes | 240 | 11.0% | 574,815 | 19.8% |
| 45 to 59 minutes | 87 | 4.0% | 194,508 | 6.7% |
| 60 or more minutes | 107 | 4.9% | 162,574 | 5.6% |
| Mean travel time to work (minutes) | 18.4 minutes | | 23.8 minutes | |



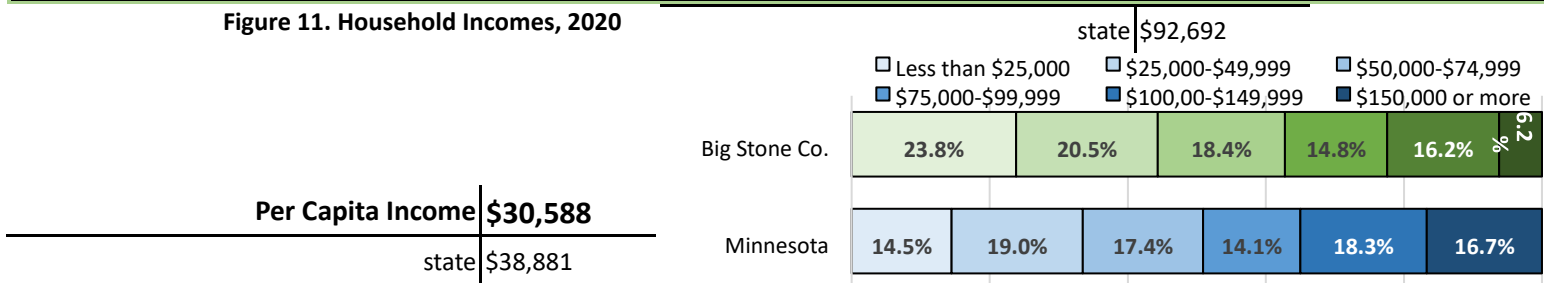
Source: 2016-2020 American Community Survey, 5-Year Estimates

INCOMES, COST OF LIVING, & HOUSING

Big Stone Co. had a lower median household income than the state, and a higher percentage of households with incomes below \$50,000. Overall, Big Stone Co. had the 63rd highest median household income of the 87 counties in the state.

| | |
|-------------------------|-----------------|
| Median Household Income | \$55,909 |
| state | \$73,382 |
| Median Family Income | \$75,792 |

Figure 11. Household Incomes, 2020



Per Capita Income **\$30,588**

state **\$38,881**

Source: 2016-2020 American Community Survey

Source: 2016-2020 American Community Survey 5-Year Estimates

The cost of living has increased over the past year with costs up in many areas. Big Stone Co. had a lower cost of living than the state, with a required hourly wage of \$12.99 for a single person living alone to meet a basic needs cost of living, and an hourly wage requirement of \$14.61 for a typical family with 2 adults and 1 child (see Table 9).

Table 9. Basic Needs Cost of Living Estimates, 2022

| Single Adult, 0 children | Single Yearly Cost of Living | Hourly Wage Required | Monthly Costs | | | | | | |
|--------------------------|------------------------------|----------------------|---------------|-------|-------------|---------|----------------|-------|-------|
| | | | Child Care | Food | Health Care | Housing | Transportation | Other | Taxes |
| Big Stone Co. | \$27,015 | \$12.99 | \$0 | \$359 | \$152 | \$565 | \$638 | \$253 | \$284 |
| State of Minnesota | \$33,708 | \$16.21 | \$0 | \$359 | \$157 | \$903 | \$663 | \$345 | \$382 |

| Typical Family: 2 Adults (1 working full-time, 1 parttime), 1 child | Family Yearly Cost of Living | Hourly Wage Required | Monthly Costs | | | | | | |
|---|------------------------------|----------------------|---------------|-------|-------------|---------|----------------|-------|-------|
| | | | Child Care | Food | Health Care | Housing | Transportation | Other | Taxes |
| Big Stone Co. | \$45,577 | \$14.61 | \$210 | \$822 | \$538 | \$756 | \$741 | \$432 | \$299 |
| State of Minnesota | \$60,540 | \$19.40 | \$579 | \$822 | \$561 | \$1,151 | \$772 | \$540 | \$620 |

Source: DEED Cost of Living tool

Big Stone Co. had a lower median house value than the state, having the 78th highest value of the 87 counties in 2020. Big Stone Co.'s housing stock was older than the state's, with a lower percentage of units built since 2000 (see Figure 12).

| Table 10. Estimated Value of Owner-occupied Housing Units, 2020 | Big Stone Co. | | Minnesota |
|---|------------------|---------------|------------------|
| | Total | Percent | Percent |
| Total | 1,621 | 100.0% | 100.0% |
| Less than \$50,000 | 187 | 11.5% | 4.3% |
| \$50,000 to \$99,999 | 544 | 33.6% | 7.0% |
| \$100,000 to \$149,999 | 306 | 18.9% | 10.9% |
| \$150,000 to \$199,999 | 210 | 13.0% | 16.6% |
| \$200,000 to \$299,999 | 205 | 12.6% | 28.8% |
| \$300,000 to \$499,999 | 131 | 8.1% | 23.6% |
| \$500,000 or more | 38 | 2.3% | 8.9% |
| Median (dollars) | \$108,900 | | \$235,700 |

Source: 2016-2020 American Community Survey, 5-Year Estimates

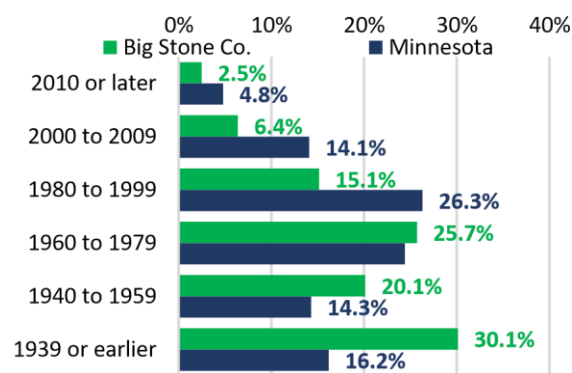
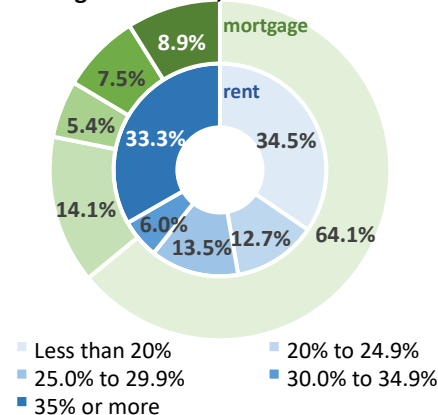


Figure 12. Year Structure Built, 2020

| | |
|--|----------------|
| Median monthly owner costs, owner-occupied units with a mortgage | \$1,070 |
| state | \$1,606 |
| Percentage of households with a mortgage spending 30% or more of their income on housing costs | 16.4% |
| state | 21.6% |
| Median monthly rent costs | \$606 |
| state | \$1,010 |
| Percentage of renters spending 30% or more of their household income on rent | 39.3% |
| state | 44.8% |

Figure 13. Housing Costs as a Percentage of Income, 2020



Source: 2016-2020 American Community Survey, 5-Year Estimates

OCCUPATIONS

At \$18.94 in 2021, wages were lower in Region 6W than the state. Overall, Region 6W had the 2nd lowest median hourly wage level of the 13 economic development regions in the state. Wages were highest for management occupations (\$38.43) and lowest for food preparation and serving related jobs (\$12.28) (see Table 11).

Table 11. Occupational Employment & Wage Statistics, 2021

| Occupational Group | Region 6W | | | | State of Minnesota | | |
|--------------------------------------|--------------------|-------------------------|---------------------|----------------------------|--------------------|------------------|---------------------|
| | Median Hourly Wage | Estimated Regional Jobs | Share of Total Jobs | Regional Location Quotient | Median Hourly Wage | State-wide Jobs | Share of Total Jobs |
| Total, All Occupations | \$18.94 | 15,790 | 100.0% | 1.0 | \$23.81 | 2,695,450 | 100.0% |
| Management | \$38.43 | 870 | 5.5% | 0.8 | \$50.51 | 181,090 | 6.7% |
| Business & Financial Operations | \$29.90 | 500 | 3.2% | 0.4 | \$38.08 | 192,700 | 7.1% |
| Computer & Mathematical | \$30.56 | 70 | 0.4% | 0.1 | \$48.34 | 101,560 | 3.8% |
| Architecture & Engineering | \$38.19 | 140 | 0.9% | 0.5 | \$39.39 | 51,970 | 1.9% |
| Life, Physical & Social Science | \$27.03 | 130 | 0.8% | 0.8 | \$37.30 | 26,140 | 1.0% |
| Community & Social Service | \$22.76 | 300 | 1.9% | 1.0 | \$24.68 | 53,670 | 2.0% |
| Legal | \$29.94 | 30 | 0.2% | 0.3 | \$40.08 | 19,860 | 0.7% |
| Education, Training & Library | \$23.62 | 1,210 | 7.7% | 1.4 | \$24.48 | 149,990 | 5.6% |
| Arts, Design, Entertainment & Media | \$18.09 | 110 | 0.7% | 0.5 | \$26.08 | 36,710 | 1.4% |
| Healthcare Practitioners & Technical | \$30.27 | 1,110 | 7.0% | 1.0 | \$38.73 | 190,180 | 7.1% |
| Healthcare Support | \$15.23 | 1,150 | 7.3% | 1.2 | \$15.37 | 162,530 | 6.0% |
| Protective Service | \$23.55 | 290 | 1.8% | 1.2 | \$25.07 | 40,580 | 1.5% |
| Food Preparation & Serving Related | \$12.28 | 1,300 | 8.2% | 1.1 | \$14.65 | 198,800 | 7.4% |
| Building, Grounds Cleaning & Maint. | \$15.62 | 570 | 3.6% | 1.3 | \$17.98 | 75,850 | 2.8% |
| Personal Care & Service | \$14.60 | 370 | 2.3% | 1.1 | \$15.24 | 56,580 | 2.1% |
| Sales & Related | \$14.59 | 1,360 | 8.6% | 0.9 | \$17.25 | 245,390 | 9.1% |

COUNTY PROFILE

Big Stone Co.

| Occupational Group | Hourly Wage | Number of Jobs | Percentage of Total | Unemployment Rate | Hourly Wage | Total Jobs | Percentage of Total |
|------------------------------------|-------------|----------------|---------------------|-------------------|-------------|------------|---------------------|
| Office & Administrative Support | \$18.89 | 1,860 | 11.8% | 0.9 | \$23.12 | 334,550 | 12.4% |
| Farming, Fishing & Forestry | \$18.34 | 100 | 0.6% | 3.9 | \$18.55 | 4,350 | 0.2% |
| Construction & Extraction | \$23.72 | 740 | 4.7% | 1.2 | \$30.09 | 107,180 | 4.0% |
| Installation, Maintenance & Repair | \$23.42 | 880 | 5.6% | 1.6 | \$25.34 | 96,660 | 3.6% |
| Production | \$18.80 | 1,390 | 8.8% | 1.2 | \$19.59 | 198,940 | 7.4% |
| Transportation & Material Moving | \$19.12 | 1,300 | 8.2% | 1.1 | \$19.30 | 209,780 | 7.8% |

Source: DEED Occupational Employment & Wage Statistics, Qtr. 1 2021

JOB VACANCY SURVEY

Big Stone Co. is a part of the Southwest planning region. There were 12116 job vacancies posted by employers in the 4th Quarter of 2021, indicating extensive opportunity in the region, with openings across several occupations and industries (see Figure 14).

Table 12. Southwest Job Vacancy Survey Results, Qtr. 4 2021

| Occupational Group | Number of Vacancies | Wage Offer |
|--------------------------------------|---------------------|----------------|
| Total, All Occupations | 12,116 | \$15.03 |
| Management | 238 | \$32.97 |
| Business & Financial Operations | 406 | \$33.55 |
| Computer & Mathematical | 48 | \$25.16 |
| Architecture & Engineering | 86 | \$24.09 |
| Life, Physical & Social Sciences | 14 | \$21.00 |
| Community & Social Service | 111 | \$21.79 |
| Education, Training & Library | 257 | \$23.51 |
| Healthcare Practitioners & Technical | 1,050 | \$24.77 |
| Healthcare Support | 1,618 | \$13.52 |
| Protective Service | 141 | \$13.79 |
| Food Preparation & Serving Related | 2,080 | \$11.90 |
| Building, Grounds Cleaning & Maint. | 328 | \$14.86 |
| Personal Care & Service | 246 | \$19.15 |
| Sales & Related | 1,549 | \$13.27 |
| Office & Administrative Support | 637 | \$13.43 |
| Construction & Extraction | 142 | \$21.47 |
| Installation, Maintenance & Repair | 531 | \$18.92 |
| Production | 843 | \$15.59 |
| Transportation & Material Moving | 1,316 | \$17.09 |

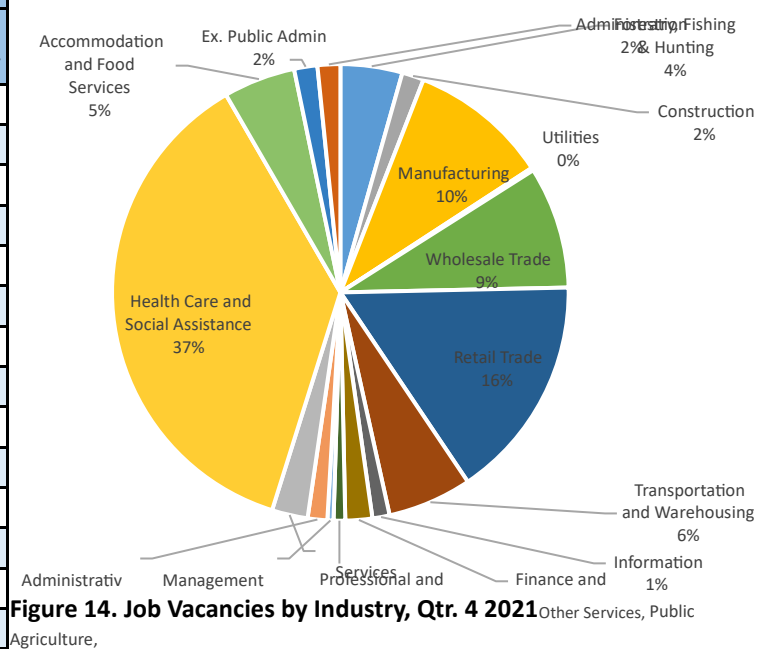


Figure 14. Job Vacancies by Industry, Qtr. 4 2021

e and Waste Services 1%
 of Companies and Services 2%
 Enterprises Technical 3%
 Insurance 3%
 Educational 3%

1%

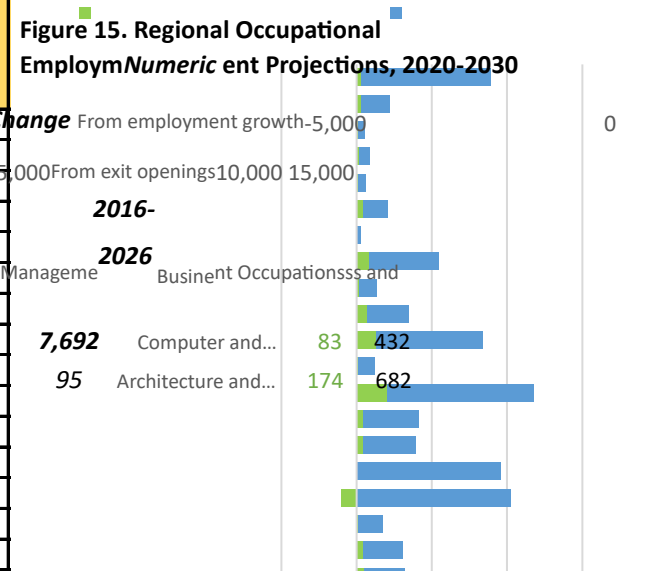
[Source: DEED Job Vacancy Survey, Qtr. 4 2021](#)

| Less than High School | High School or Equivalent | Some College or Assoc. Deg. | Bachelor's Degree or Higher |
|---|--|--|--|
| Home Health and Personal Care Aides \$30,145/yr | Nursing Assistants \$33,957/yr | Registered Nurses \$76,734/yr | Elementary School Teachers, Except Special Education \$53,146/yr |
| Retail Salespersons \$28,932/yr | Licensed Practical and Licensed Vocational Nurses \$48,351/yr | Clinical Laboratory Technologists and Technicians \$55,177/yr | General and Operations Managers \$79,034/yr |
| Cashiers \$25,982/yr | Medical Assistants \$41,596/yr | Police and Sheriff's Patrol Officers \$59,965/yr | Secondary School Teachers, Except Special and Career/Technical \$57,121/yr |
| Fast Food and Counter Workers \$24,598/yr | Automotive Service Technicians and Mechanics \$37,127/yr | Magnetic Resonance Imaging Technologists \$79,803/yr | Accountants and Auditors \$64,075/yr |
| Heavy and Tractor-Trailer Truck Drivers \$45,543/yr | Electricians \$57,423/yr | Industrial Engineering Technologists and Technicians \$51,741/yr | Substance abuse, behavioral disorder, and mental health \$51,967/yr |
| First-Line Supervisors of Retail Sales Workers \$43,858/yr | Heating, Air Conditioning, and Refrigeration Mechanics and Installers \$49,409/yr | Surgical Technologists \$57,436/yr | Substitute Teachers, Short-Term \$35,428/yr |
| Waiters and Waitresses \$25,523/yr | Machinists \$48,003/yr | Radiologic Technologists and Technicians \$65,570/yr | Project Management Specialists and Business Operations \$60,798/yr |
| Stockers and Order Fillers \$30,099/yr | Industrial Machinery Mechanics \$52,667/yr | Veterinary Technologists and Technicians \$37,547/yr | Pharmacists \$134,918/yr |
| Customer Service Representatives \$37,334/yr | Hairdressers, Hairstylists, and Cosmetologists \$29,742/yr | Electrical and Electronic Engineering Technologists and Technicians \$58,234/yr | Middle School Teachers, Except Special and Career/Technical \$60,938/yr |
| Teaching Assistants, Except Postsecondary \$29,982/yr | Emergency Medical Technicians and Paramedics \$36,614/yr | Forest and Conservation Technicians \$47,186/yr | Sales Representatives, Wholesale and Manufacturing, Technical and \$54,030/yr |

Source: DEED Occupations in Demand

Big Stone Co. is a part of the Southwest planning region, which is projected to see a 3.9% increase in employment levels over the next decade. In addition to new jobs created, there will be a much larger number of exit openings (see Figure 15).

| Estimated | Projected Employment | Employment | Change |
|------------------------------|----------------------|----------------|-------------|
| 2020 | 2020 | 2030 | 2020-2030 |
| Financial... | 301,312 | 1,897,590 | |
| Total, All Industries | 195,812 | 203,504 | 3.9% |
| Natural Resources & Mining | 5,931 | 6,026 | 1.6% |



OCCUPATIONS IN DEMAND

| | | | | | | |
|--|--------|--------|-------|---|-------|--------|
| Utilities | 713 | 735 | 3.1% | Life, Physical, and Social Sciences | 111 | 533 |
| Construction | 7,573 | 8,082 | 6.7% | Community and Social Services | 434 | 1,676 |
| Manufacturing | 30,107 | 30,719 | 2.0% | Legal Occupations | 47 | 194 |
| | | | | Educational Instruction and Training | 855 | 4,608 |
| Wholesale Trade | 8,045 | 8,118 | 0.9% | Arts, Design, and Communications | 196 | 1,129 |
| Retail Trade | 18,569 | 17,653 | -4.9% | Healthcare Practitioners and Related Occupations | 729 | 2,738 |
| Transportation & Warehousing | 7,385 | 7,817 | 5.8% | Healthcare Support Occupations | 1,322 | 7,049 |
| Information | 2,152 | 2,001 | -7.0% | Protective Service Occupations | 125 | 1,134 |
| Finance & Insurance, Real Estate | 8,098 | 8,232 | 1.7% | Food Preparation and Related Occupations | 2,026 | 9,744 |
| Professional Services & Mgmt. of Companies | 5,283 | 5,512 | 4.3% | Building and Grounds Maintenance and Cleaning Occupations | 414 | 3,715 |
| | | | | Personal Care and Service Occupations | 446 | 3,452 |
| Admin. Support & Waste Mgmt. | 3,421 | 3,636 | 6.3% | Sales and Related Occupations | -812 | 9,573 |
| Educational Services | 15,564 | 16,274 | 4.6% | Office and Administrative Support Occupations | -999 | 10,245 |
| Health Care & Social Assistance | 29,352 | 32,081 | 9.3% | Farming, Fishing, and Hunting Occupations | 63 | 1,651 |
| Leisure & Hospitality | 11,744 | 14,382 | 22.5% | Construction and Extraction Occupations | 433 | 2,623 |
| Other Services | 6,756 | 7,462 | 10.4% | Installation, Maintenance, and Repair Occupations | 515 | 2,660 |
| Public Administration | 13,193 | 13,517 | 2.5% | Production Occupations | -49 | 7,349 |
| | | | | Transportation and Material Moving Occupations | 986 | 7,521 |

Source: DEED 2020-2030 Employment Outlook

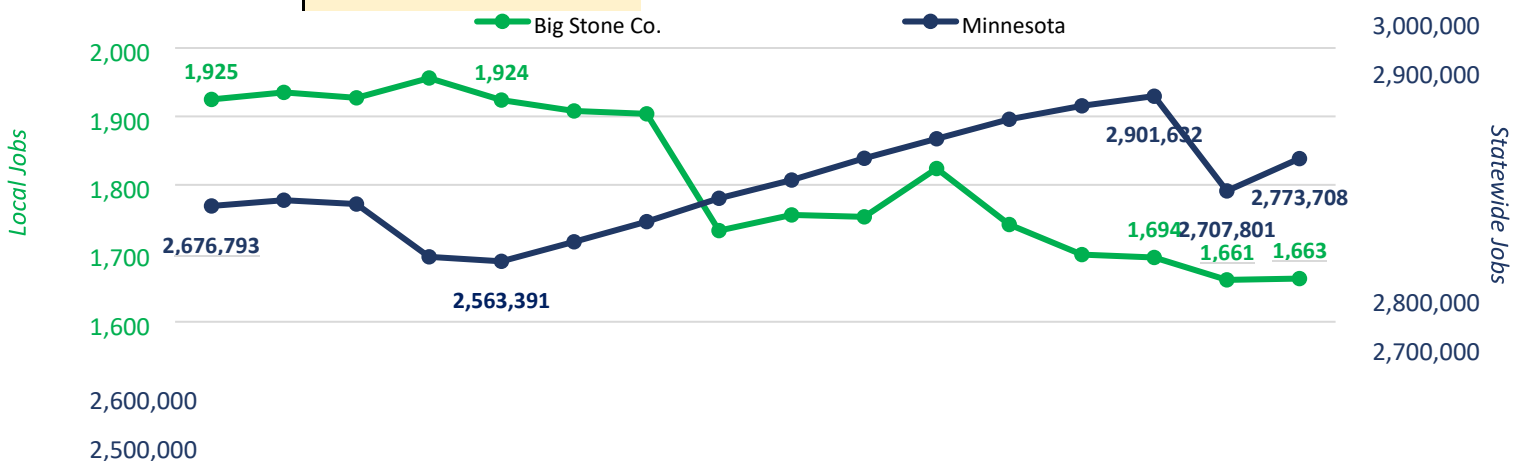
ECONOMIC CHARACTERISTICS

Coming out of the pandemic recession, after gaining jobs over the past year, Big Stone Co. had the 80th largest economy of the 87 counties in the state. Big Stone Co. was the 72nd fastest growing in the past year and the 24th fastest growing since 2019, prior to the pandemic. From 2019 to 2021, employment in Big Stone Co. is still down from the pandemic recession.

206 business establishments \$45,412 annual average wage
 1,663 jobs \$75,519,612 total industry payroll

Job change, 2019-2021
 -31 jobs
 -1.8% decline

Figure 16. Industry Employment Statistics, 2006-2021



2,400,000

1,500

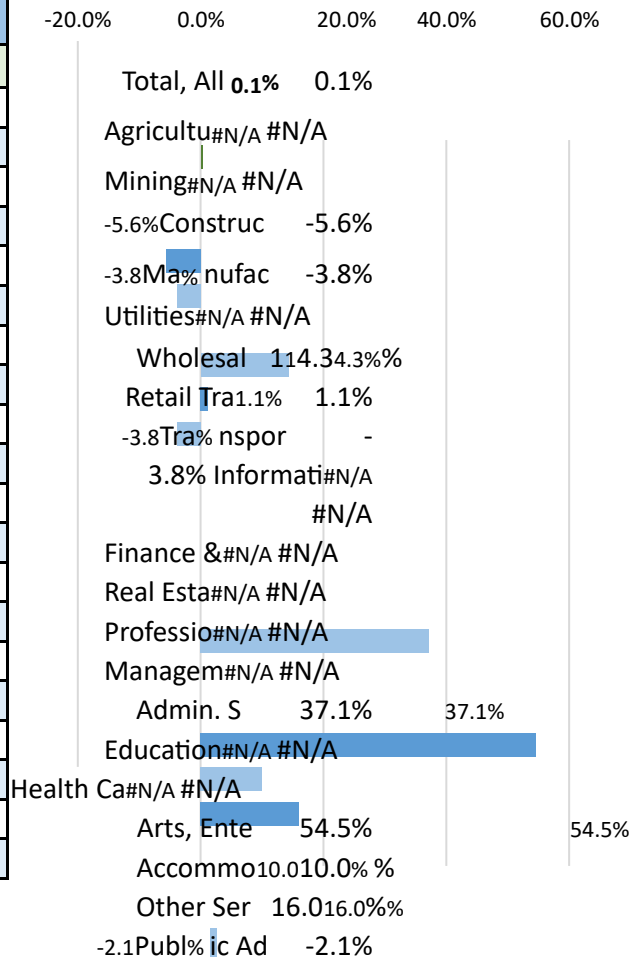
2,300,000

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

Source: DEED QCEW program

| Table 15. Big Stone Co. Industry Employment Statistics, 2021 | Number of Jobs | Percent of Total Jobs | Average Annual Wage |
|--|----------------|-----------------------|---------------------|
| Total, All Industries | 1,663 | 100.0% | \$45,412 |
| Agriculture, Forestry, Fish & Hunt | #N/A | #N/A | #N/A |
| Mining | #N/A | #N/A | #N/A |
| Construction | 169 | 10.2% | \$79,775 |
| Manufacturing | 17 | 1.0% | \$20,689 |
| Utilities | #N/A | #N/A | #N/A |
| Wholesale Trade | 72 | 4.3% | \$72,843 |
| Retail Trade | 178 | 10.7% | \$25,100 |
| Transportation & Warehousing | 51 | 3.1% | \$54,454 |
| Information | #N/A | #N/A | #N/A |
| Finance & Insurance | 51 | 3.1% | \$13,962 |
| Real Estate & Rental & Leasing | 5 | 0.3% | \$12,527 |
| Professional & Technical Services | #N/A | #N/A | #N/A |
| Management of Companies | #N/A | #N/A | #N/A |
| Admin. Support & Waste Mgmt. Svcs. | 16 | 1.0% | \$38,842 |
| Educational Services | #N/A | #N/A | #N/A |
| Health Care & Social Assistance | #N/A | #N/A | #N/A |
| Arts, Entertainment, & Recreation | 17 | 1.0% | \$7,622 |
| Accommodation & Food Services | 91 | 5.5% | \$7,530 |
| Other Services | 58 | 3.5% | \$18,654 |
| Public Administration | 142 | 8.5% | \$51,294 |

Figure 2. Change in Jobs, 2020-2021



Source: DEED Quarterly Census of Employment & Wages (QCEW)

For more information on Big Stone Co.'s population, labor force, and economic trends, contact:

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 CareerForce St. Cloud | 1542 Northway Dr. Door 2 | St. Cloud MN 56303
 Office: 320-308-5378 | E-mail: luke.greiner@state.mn.us
 web: www.mn.gov/deed/data/regional-lmi/

Data updated: August 1, 2022

Appendix II

Big Stone County 2022 Goal Volume Table (GVT)

Previous 5 Years Data

Management Method - Tons

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------------------|--------------|--------------|--------------|--------------|--------------|
| Landfill | 1953 | 1653 | 2009 | 2370 | 1746 |
| Onsite | 617 | 615 | 588 | 588 | 588 |
| Organics | 189 | 300 | 369 | 611 | 548 |
| Recycling | 734 | 746 | 1246 | 843 | 683 |
| WTE | 374 | 40 | 15 | 0 | 0 |
| | 2943 | 2308 | 2612 | | |
| Recycling+Organics | 923 | 1046 | 1615 | 1454 | 1231 |
| Recycling Rate | 23.9% | 31.2% | 38.2% | 33.0% | 34.5% |
| Total MSW | 3867 | 3355 | 4227 | 4412 | 3565 |
| | | | | 2958 | 2334 |

Total MMSW

Non-MSW

| | | | | | |
|------|----|----|----|---|---|
| 2016 | 0 | 19 | 27 | 0 | 0 |
| 2017 | 27 | 0 | 0 | 0 | 0 |

2016

2017

2018

2019

2020

Industrial

Construction & Demo

Tons Recycled By Material Category

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------|------|------|------|------|------|
| Glass | 104 | 117 | 203 | 101 | 82 |
| Hazardous | 60 | 25 | 27 | 70 | 62 |
| Metal | 87 | 171 | 143 | 192 | 151 |
| Organic | 189 | 300 | 369 | 611 | 548 |
| Other | 63 | 39 | 44 | 28 | 27 |
| Paper | 392 | 362 | 775 | 426 | 338 |
| Plastic | 29 | 32 | 53 | 27 | 23 |
| Total | 923 | 1046 | 1615 | 1454 | 1231 |

Problem Materials

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------------|------|-------|-------|-------|-------|
| Antifreeze | | 0.5 | 0.8 | 1 | 0.96 |
| Electronic devices* | 7.5 | 6.75 | 4.18 | 4.42 | 3.05 |
| Major appliances | 23.5 | 6.65 | 14.18 | 6.8 | 7.95 |
| Used oil | 45 | 13.45 | 14.01 | 46.84 | 35.06 |
| Vehicle batteries | 11 | 6 | 6 | 12.16 | 17.72 |
| Waste tires | 15 | 8.29 | 12.23 | 3.4 | 16.3 |
| Total | 102 | 41.64 | 51.4 | 74.62 | 81.04 |

County goal volume table template for solid waste planning

Instructions: Please copy and past the file sent to you by your MPCA Solid Waste Planner in the fields below. Only fill out the **yellow-highlighted fields**. Please email this completed form to your MPCA Solid Waste Planner.

If you have any questions please see the **Contact information tab below for contact information.**

County

Big Stone

MSW Forecast

| | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Recycling | 662 | 656 | 650 | 644 | 638 | 631 | 625 | 618 | 611 | 605 |
| Organics | 531 | 526 | 521 | 516 | 511 | 506 | 501 | 496 | 490 | 485 |
| WTE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Landfill | 1,690 | 1,676 | 1,660 | 1,645 | 1,629 | 1,613 | 1,596 | 1,580 | 1,562 | 1,544 |
| Total Tons | 2,883 | 2,858 | 2,831 | 2,805 | 2,778 | 2,750 | 2,722 | 2,694 | 2,664 | 2,634 |
| Total Population | 4,725 | 4,684 | 4,641 | 4,598 | 4,554 | 4,508 | 4,462 | 4,415 | 4,366 | 4,317 |
| Per Capita | 0.61 | 0.61 | 0.61 | 0.61 | 0.61 | 0.61 | 0.61 | 0.61 | 0.61 | 0.61 |

Copy and paste the GVT file in the table below.

County goal volume table template for solid waste planning

St. Paul, MN 55155-4194

Enter the percent of MSW by Sector - this must add to 100%

| | |
|-------------|-----|
| Residential | 54% |
| C/I/I | 46% |

Onsite Disposal - Estimate of people underserved by garbage collection/drop-sites for use in calculating on-site disposal

| Year | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
|------------------------------|------|------|------|------|------|------|------|------|------|------|
| Number of People underserved | 1350 | 1350 | 1350 | 1350 | 1350 | 1350 | 1350 | 1350 | 1350 | 1350 |

Non-MMSW/Industrial Waste Projections (in Tons)

| Year | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
|---------------------------|------|------|------|------|------|------|------|------|------|------|
| Industrial | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Construction & Demolition | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Instructions: Please read "Overview and Instructions" tab prior to completing this form. Only fill out the yellow-highlighted fields. Please email this completed form to your MPCA Solid Waste Planner.

If you have any questions please see the Contact information tab below for contact information.

| | | | | | | | | | | |
|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Capacity Used | 1,743 | 1,717 | 1,663 | 1,648 | 1,631 | 1,614 | 1,597 | 1,581 | 1,563 | 1,543 |
| On-site Disposal | 567 | 567 | 567 | 567 | 567 | 567 | 567 | 567 | 567 | 567 |
| Total MSW Generated | 3,450 | 3,425 | 3,398 | 3,372 | 3,345 | 3,317 | 3,289 | 3,261 | 3,231 | 3,201 |

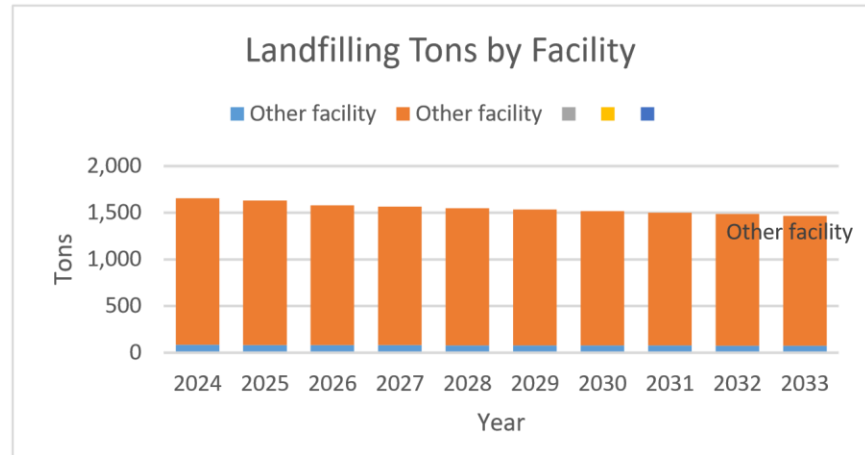
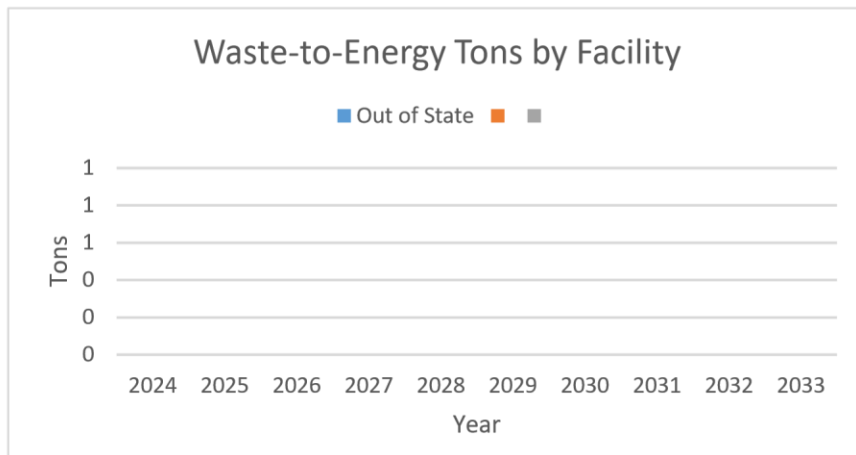
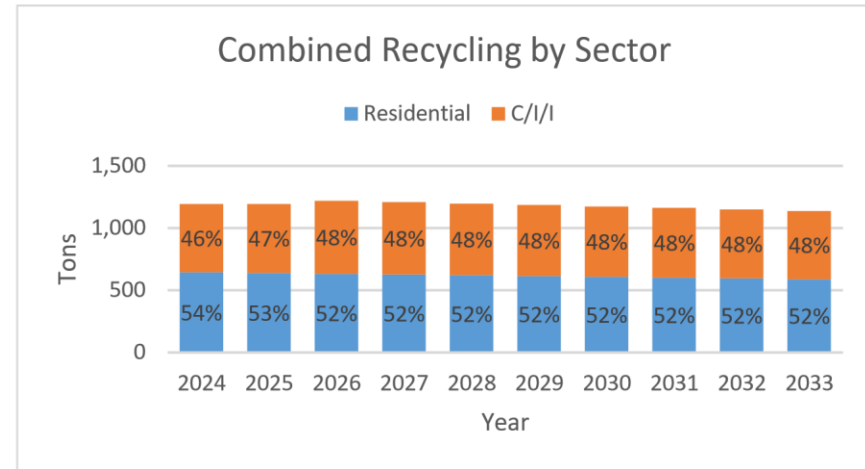
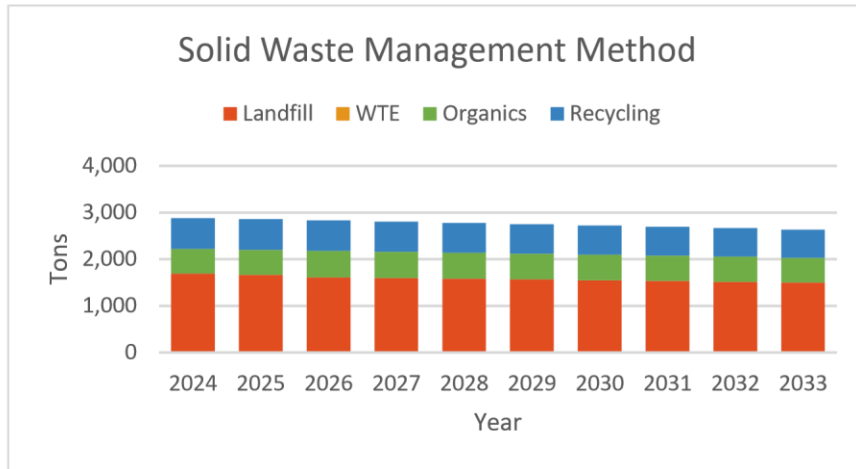


520 Lafayette Road North
St. Paul, MN 55155-4194

County goal volume table template for solid waste planning

Summary of Goal Volume Table for Big Stone County

Solid Waste Planner: David Crowell



County goal volume table template for solid waste planning

Summary of Goal Volume Table for Big Stone County

Solid Waste Planner: David Crowell

Total land disposal capacity needed for waste generated in county

| Waste Type | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | Total |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| MSW | 1,743 | 1,717 | 1,663 | 1,648 | 1,631 | 1,614 | 1,597 | 1,581 | 1,563 | 1,543 | 16,300 |
| Industrial | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Construction & Demolition | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Capacity | 1,743 | 1,717 | 1,663 | 1,648 | 1,631 | 1,614 | 1,597 | 1,581 | 1,563 | 1,543 | 16,300 |

The total land disposal capacity needed from the period of 2024 to 2033 is 16,300 cubic yards

County goal volume table template for solid waste planning

520 Lafayette Road North
 St. Paul, MN 55155-4194

Below is the contact information for planner associated with your county. If you have any questions regarding the information requested in the form or need any additional clarification please contact them.

| Planner | Email | Phone Number |
|---------------|---------------------------|--------------|
| David Crowell | david.crowell@state.mn.us | 218-316-3855 |

Appendix III

Projected Ten-Year Solid Waste Budget

Appendix III-BIG STONE COUNTY SOLID WASTE BUDGET, 2022-2031

| | | | | | | | | | | | | | | |
|--|------------------|------------------|------------------|------------------|------------------|------------------|---------------------|------------------|------------------|------------------|------------------|------------------|---------------------|----------------------|
| Number of households= | 2,294 | | | | | | | | | | | | | |
| Inflation Rate= | 3% | | | | | | | | | | | | | |
| | 3,565 | 3,529 | 3,494 | 3,450 | 3,425 | 3,398 | 17,296 | 3,372 | 3,345 | 3,317 | 3,289 | 3,261 | 16,584 | 33,880 |
| | <i>Base Year</i> | | | | | | | | | | | | | |
| Total MSW Tonnage Projections: (from Goal-Volume Table) | | | | | | | | | | | | | | |
| Expenditures | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 5 Year Total | 2027 | 2028 | 2029 | 2030 | 2031 | 5 Year Total | 10 Year Total |
| Waste Education/Source Reduction | \$19,400 | \$19,982 | \$20,581 | \$21,199 | \$21,835 | \$22,490 | \$106,087 | \$23,165 | \$23,860 | \$24,575 | \$25,313 | \$26,072 | \$122,984 | \$229,071 |
| Recycling: | \$0 | | | | | | | | | | | | | |
| Capital Outlay | | | | | | | | | | | | | | |
| Operations | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contracts | | | | | | | | | | | | | | |
| Other Operating Expenses | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| <i>Recycling Total</i> | \$134,500 | \$138,535 | \$142,691 | \$146,972 | \$151,381 | \$155,922 | \$735,501 | \$160,600 | \$165,418 | \$170,381 | \$175,492 | \$180,757 | \$852,647 | \$1,588,149 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | \$134,500 | \$138,535 | \$142,691 | \$146,972 | \$151,381 | \$155,922 | \$735,501 | \$160,600 | \$165,418 | \$170,381 | \$175,492 | \$180,757 | \$852,647 | \$1,588,149 |
| Yardwaste Management | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Household Hazardous Waste | \$4,230 | \$4,357 | \$4,488 | \$4,622 | \$4,761 | \$4,904 | \$23,131 | \$5,051 | \$5,202 | \$5,358 | \$5,519 | \$5,685 | \$26,816 | \$49,947 |
| Demolition Waste | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Special Wastes: | | | | | | | | | | | | | | |
| Waste Tires | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Appliances | \$250 | \$258 | \$265 | \$273 | \$281 | \$290 | \$1,367 | \$299 | \$307 | \$317 | \$326 | \$336 | \$1,585 | \$2,952 |
| Used Oil/Filters/Batteries | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Electronics | | | | | | | | | | | | | | |
| Flourescent Lamps | | | | | | | | | | | | | | |
| <i>Special Wastes Total</i> | \$3,250 | \$3,348 | \$3,448 | \$3,551 | \$3,658 | \$3,768 | \$17,772 | \$3,881 | \$3,997 | \$4,117 | \$4,241 | \$4,368 | \$20,603 | \$38,375 |
| | \$1,500 | \$1,545 | \$1,591 | \$1,639 | \$1,688 | \$1,739 | \$8,203 | \$1,791 | \$1,845 | \$1,900 | \$1,957 | \$2,016 | \$9,509 | \$17,712 |
| | \$5,000 | \$5,150 | \$5,305 | \$5,464 | \$5,628 | \$5,796 | \$27,342 | \$5,970 | \$6,149 | \$6,334 | \$6,524 | \$6,720 | \$31,697 | \$59,039 |
| Staff & Administration/Benefits | \$41,000 | \$42,230 | \$43,497 | \$44,802 | \$46,146 | \$47,530 | \$224,205 | \$48,956 | \$50,425 | \$51,938 | \$53,496 | \$55,101 | \$259,915 | \$484,120 |
| Administration: | | | | | | | | | | | | | | |
| Office Equipment | | | | | | | | | | | | | | |
| Misc. Office Expences | | | | | | | | | | | | | | |
| Training | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| <i>Administration Total</i> | \$3,000 | \$3,090 | \$3,183 | \$3,278 | \$3,377 | \$3,478 | \$16,405 | \$3,582 | \$3,690 | \$3,800 | \$3,914 | \$4,032 | \$19,018 | \$35,423 |
| | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| | \$3,000 | \$3,090 | \$3,183 | \$3,278 | \$3,377 | \$3,478 | \$16,405 | \$3,582 | \$3,690 | \$3,800 | \$3,914 | \$4,032 | \$19,018 | \$35,423 |
| SCORE Planning, Oversight & Adm. | \$15,000 | \$15,450 | \$15,914 | \$16,391 | \$16,883 | \$17,389 | \$82,026 | \$17,911 | \$18,448 | \$19,002 | \$19,572 | \$20,159 | \$95,091 | \$177,117 |
| HHW and problem materials management | \$5,000 | \$5,150 | \$5,305 | \$5,464 | \$5,628 | \$5,796 | \$27,342 | \$5,970 | \$6,149 | \$6,334 | \$6,524 | \$6,720 | \$31,697 | \$59,039 |
| Total Program Cost: | \$227,130 | \$233,944 | \$240,962 | \$248,191 | \$255,637 | \$263,306 | \$1,242,040 | \$271,205 | \$279,341 | \$287,721 | \$296,353 | \$305,244 | \$1,439,865 | \$2,681,905 |
| Gross cost per HH per year: | \$99.01 | \$101.98 | \$105.04 | \$108.19 | \$111.44 | \$114.78 | \$541.43 | \$118.22 | \$121.77 | \$125.42 | \$129.19 | \$133.06 | \$627.67 | \$1,169.10 |

| | | | | | | | | | | | | | | |
|----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|
| Gross cost per ton MSW generated | \$63.71 | \$65.62 | \$67.59 | \$69.62 | \$71.71 | \$73.86 | \$348.40 | \$76.07 | \$78.36 | \$80.71 | \$83.13 | \$85.62 | \$403.89 | \$752.29 |
| | | | | | | | | | | | | | | |
| Revenues | | | | | | | | | | | | | | |
| SCORE Grant | \$71,000 | \$71,000 | \$71,000 | \$71,000 | \$71,000 | \$71,000 | \$355,000 | \$71,000 | \$71,000 | \$71,000 | \$71,000 | \$71,000 | \$355,000 | \$710,000 |
| HHW Grant | \$2,400 | \$2,400 | \$2,472 | \$2,546 | \$2,623 | \$2,701 | \$12,742 | \$2,782 | \$2,866 | \$2,952 | \$3,040 | \$3,131 | \$14,771 | \$27,513 |
| Solid Waste Assessment | \$166,000 | \$166,000 | \$166,000 | \$166,000 | \$166,000 | \$166,000 | \$166,000 | \$166,000 | \$166,000 | \$166,000 | \$166,000 | \$166,000 | \$166,000 | \$332,000 |
| SCORE Grant Match | \$17,750 | \$13,750 | \$13,750 | \$13,750 | \$13,750 | \$13,750 | \$68,750 | \$13,750 | \$13,750 | \$13,750 | \$13,750 | \$13,750 | \$68,750 | \$137,500 |
| Licenses | \$700 | \$721 | \$743 | \$765 | \$788 | \$811 | \$3,828 | \$836 | \$836 | \$861 | \$887 | \$913 | \$4,333 | \$8,161 |
| | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Special Wastes | \$5,260 | \$5,418 | \$5,580 | \$5,748 | \$5,920 | \$6,098 | \$28,764 | \$6,281 | \$6,469 | \$6,663 | \$6,863 | \$7,069 | \$33,345 | \$62,109 |
| | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total Program Revenues | \$263,110 | \$259,289 | \$259,545 | \$259,809 | \$260,081 | \$260,360 | \$1,299,084 | \$260,649 | \$260,921 | \$261,226 | \$261,540 | \$261,864 | \$1,306,199 | \$2,605,283 |
| Net Budget* | \$35,980 | \$25,345 | \$18,583 | \$11,618 | \$4,444 | (\$2,945) | \$57,044 | (\$10,556) | (\$18,421) | (\$26,496) | (\$34,813) | (\$43,380) | (\$133,665) | (\$76,622) |

Appendix IV

Resoluon #2023-10, Resoluon to Approve and Adopt the Big Stone
County Solid Waste Management Plan, 5/2/23



BIG STONE COUNTY MINNESOTA

ADMINISTRATION

RESOLUTION #2023-10

A RESOLUTION TO APPROVE AND ADOPT THE BIG STONE COUNTY SOLID WASTE MANAGEMENT PLAN

WHEREAS, the legislature of the State of Minnesota requires that Minnesota's counties develop a Solid Waste Management Plan Update in accordance with Minn. Stat. §§ 115A.46: 115A.417; 115A.551, subds. 6-7; 115A.552; 115A.557, subd. 2-3: 115A.63; 115A.84; 115A.914; 115.96, Subd. 6-7; 115A.917; 115A.97; Minn. Rules 9215 and all other applicable statutes and rules; and

WHEREAS, Minnesota counties recognize the need to plan for and practice environmentally sound methods of managing their solid waste stream;

WHEREAS, the state of Minnesota requires Solid Waste Plans to be reviewed and submitted to the Commissioner of the Minnesota Pollution Control Agency for approval at least every ten years; and

WHEREAS, Big Stone County recognizes the need to plan for and implement waste reduction, recycling, yard waste composting, special waste management strategies, and processing of MSW;

NOW THEREFORE, BE IT RESLOVED, that the Big Stone County Board of Commissioners hereby approves and adopts the Big Stone County Solid Waste Management Plan and supporting documentation.

BE IT THEREFORE FURTHER RESOLVED that Big Stone County agrees to maintain and implement the Plan as required by Minn. Rules pt. 9215.0530, subp. 1 and 2.

BE IT THEREFOR FURTHER RESOLVED that the Big Stone County Board of Commissioners submits this document to the Commissioner of the Minnesota Pollution Control Agency pursuant to applicable Minnesota laws and rules.

Approved this 2nd day of May, 2023

ATTEST:

Pamela Rud

Big Stone County Coordinator

Brent Olson, Chair

Big Stone County Board of Commissioners

20 2nd St SE
Ortonville, MN 56278
(320) 487-1101

www.BigStoneCounty.gov